

THE STATE OF EDUCATION IN PAPUA NEW GUINEA

**Updated
March, 2003**

**Education Reform Facilitating and Monitoring Unit
National Department of Education**

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MINISTER'S MESSAGE

It gives me great pleasure to write an introductory message to this book that serves to review progress being made in education in Papua New Guinea.

As you will read, the country has made enormous advances over the last ten years following the introduction of the education reform program. I would like to mention, very briefly, just two of them. First, there has been the establishment of elementary schools in all provinces. This has been a remarkable achievement and one for which we can all be justly proud. It has been achieved thanks to strong partnerships being forged between governments at various levels and the communities in all parts of the country. Second has been the rapid growth in the number of young Papua New Guineans who now have an opportunity to complete a full secondary education. These achievements have not come without their problems and many constraints have become evident over the years. These are discussed very openly in this book.

The priorities of the Government in the field of education are well known. The top priority is to ensure that all children can receive a quality basic education of nine years. This is a long term dream of Government but is a pre requisite for the achievement of other government aims. Second is the further development of the technical and vocational sector. Education should not be seen as being purely about academic achievement. Greater emphasis must be placed on the development of skills

Future policy initiatives must be closely tied to achieving the aims of Government. Too often in the past actions taken have not been consistent with the rhetoric. In this time of economic hardship all schools must put a much greater emphasis on self reliance. This should be linked to the teaching of skills in all our education institutions as laid down in the National Skills Plan. Our aim should be to equip all of our young people for life after school whether it be as a part of the formal employment sector or at home in their villages. Education is not just for young children – it is a life long experience. There are many in our country without basic literacy skills. We cannot forget these people who have not had the opportunity of a formal education. The National Literacy Policy has been passed by the National Executive Council and it now has to be put into action.

Finally, I encourage all with an interest in the education in Papua New Guinea to carefully read this book in order to become fully conversant with the many issues currently being faced.

Honourable Michael Laimo, M.P.

Minister for Education

March, 2003

FOREWORD

The State of Education in Papua New Guinea has been published annually for the last five years. It has proved to be of great value to education officials, to teachers and teaching students, and to our friends in the international donor community. The book is never meant to be self adulatory and this year is no different. It is only by being self critical, and by learning from our mistakes, that we will be able to move on.

The format for the book this year is slightly different in that whilst it provides lengthy sections on elementary education and the financing of education, the rest of the book simply highlights changes that have occurred and issues that have arisen in the last year. As one would expect, there are fewer changes each year. This is because I feel 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.

Finally, I commend this update to all those with an interest in education in Papua New Guinea.

PETER M. BAKI.

Secretary for Education

March, 2003

INTRODUCTION

This edition of the State of Education is slightly different from previous versions in that the bulk of the information included is new. It is important that it be read in association with the State of Education in Papua New Guinea, 2002. There are frequent references to this source document. These references simply quote page numbers that, unless stated otherwise, refer to this source.

The two largest sections are those on the financing of education and elementary education. This is unsurprising. The well publicised economic problems being faced by the country means that all sectors in Government are having to reassess their roles and decide how to make the best use of a declining resource base. Education is no exception. The chapter on the financing of education in PNG expands upon that in the State of Education, 2002 and considers, again, ways in which the Department can make the best use of its resources. There is also a significant amount of attention given to updating the information provided on examination performance.

The sector that has been most affected by the economic woes is the elementary sector. This is because it is the elementary sector that is planned to expand at the greatest rate. As everyone in education is aware the success of the elementary sector is critical to the success of the whole education reform agenda. The chapter on elementary considers in more detail the impact of the present financial situation on elementary education.

See pages 26 to 28 for a full introduction to the education reform agenda

Organisation of the book

The organisation of this book is similar to that of previous versions of the State of Education. However, the statistics and relevant indicators for each of the sectors have been moved to the end of the relevant chapters.

Government Policy

The change in Government in 2002 has not brought about any fundamental changes to objectives in education. The principal long term Government policy in regard to education remains that of achieving a quality Universal Primary Education for all Papua New Guinean children. This is further emphasised in the 2003 Budget documentation:

The primary objective of the education sector will be to support the continued implementation of reforms aimed to achieve Universal Primary Education (UPE). Under the goal of UPE, Papua New Guinea aims to provide the opportunity for all children to complete nine years of basic education.

Volume 1: Economic and Development Policies – page 52

The National Education Plan (NEP), 1995 to 2004, did not have as one of its objectives the achievement of UPE. What it did aim for was to provide the

opportunity for all children to complete nine years of basic education – three years of elementary education and six years of primary. The word opportunity is critical to this. It was envisaged in the NEP that retention rates would improve, due to the introduction of elementary education, but that there would continue to be significant numbers of children still leaving the system of their own volition. The Department continues to believe that true UPE can not be achieved until such time as there is compulsory education. Compulsory education, in turn, can not be implemented until such time as there is free education. Free education in turn can not be achieved until such time as there is appropriate infrastructure in place and law and order is under control in the nation. This is clearly not possible at this point in time and nor in the medium term.

As a step towards UPE, and to ensure consistency with the ideals of Education For All, a decision was made at the Provincial Education Planners Workshop held in 2001 to aim to make the first three years of education both free and compulsory by 2014. This decision is consistent with previous policy initiatives. It simply adds an extra criteria and is the first move towards achieving true UPE.

The second objective of Government is in the area of vocational and technical education. It is hoped that a greater proportion of government resources can be devoted to this sector in future years.

Education For All

The major objectives of Education For All (EFA) are:

- Universal Primary Education (UPE), and
- that people of all ages should have the opportunity to develop basic literacy (through both formal and non-formal programs)

The World Declaration on Education For All was signed in Jomtien, Thailand in 1990 and reaffirmed in Dakar in Senegal in 2000. The EFA 'Dakar Framework for Action' sets the target date for achieving Education For All as 2015.

The Papua New Guinea Government is a signatory to this declaration. It has, therefore, committed itself to achieving Education For All along with other nations of the world.

The six EFA goals included, as a part of the commitment made in Dakar, are to attain the following:

- To expand and improve comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children
- To ensure that by 2015 all children have access to free and compulsory primary education of good quality
- To ensure that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programs
- To achieve a fifty percent improvement in levels of adult literacy by 2015
- To eliminate gender disparities in basic education by 2015
- To improve all aspects of the quality and excellence of education with measurable learning outcomes

The Dakar Framework for Action calls for each country to ensure that EFA goals and targets are reached and sustained, and for each government to establish partnerships with all parts of society and to ensure that the national action plans have the strongest possible political support.

The PNG draft National EFA Plan has been completed and, following endorsement by the National Executive Council, will be incorporated into the PNG National Education Plan – 2005 to 2014.

Statistics

The statistical information used throughout this book is taken from official returns submitted by provinces to the Corporate Data branch of the Division of Planning, Facilitating and Monitoring. The latest data available is for 2001. Unfortunately, as is explained in rather greater depth in the chapter on Management, the figures are by no means complete. Analysis of the figures would suggest that the trends and indicators derived from them are consistent with expectations and with previous years data. The most serious deficiencies are, not surprisingly, in the elementary sector. This is clear in the staffing data – there were 6,500 teachers reported in returns submitted whilst the payroll data suggests that there should be almost 8,000. Despite this, the teacher pupil ratio derived is about 28 which is consistent with previous years and there are no significant variations between provinces.

ELEMENTARY EDUCATION

Access

The number of elementary schools in the country has continued to increase at a rate that is rather greater than the administration of the system can cope with. This has particularly been seen to be the case in 2002 with the education subsidy providing 'free' education.

Since 1994, the Department has been learning lessons about the staffing and enrolment patterns of the elementary schools. Unfortunately, the data collection and coordination system is not yet reliable enough to effectively monitor and manage the needs of the elementary schools. Despite this, the data collected, backed up by the latest census data, is providing some useful indicators. They are discussed elsewhere.

Staffing and enrolment patterns in the elementary schools are becoming more predictable although it should be noted there is evidence to suggest that a couple of provinces have been purposely inflating enrolment data in order to be eligible for a greater share of the Education Subsidy. This was particularly apparent in 2002 when it is strongly suspected that there have been 'ghost' schools with 'ghost' enrolments, and 'ghost' teachers submitted for subsidy purposes.

Teacher Training

The key to the success of the elementary sector is the teacher training component. It is unfortunate that many people, even some who are working within the education system, at the national, provincial and district levels, do not yet fully appreciate the great strengths of the existing teacher training program. Although the purpose of this book is not to repeat great swathes of information that is available in the source document there is no apology given for again explaining, at some length, the current situation regarding elementary teacher education

The elementary Teacher Training Program started as a Pilot Project in 1994 to support the establishment of elementary schools throughout the nation. In 1997, the AusAID-sponsored Elementary Teacher Education Support Project (ETESP) provided technical and funding assistance to meet teacher demands of the expanding elementary school system. A further positive, and frequently unnoticed, impact that the elementary program has had is in the provision of employment opportunities for grade 10 graduates unable to continue into grade 11. Of equal importance is the fact that the bulk of these opportunities are at the village level rather than in the urban areas.

When the ETESP wound up in September 2002, all provinces and all districts in the country had elementary schools with elementary Preparatory (EP), elementary grade 1 (E1) and elementary grade 2 (E2) classes. In many ways the elementary component of the education reform process owes its success to the Elementary Teacher Training (ETT) Program. Some tangible evidence of the ETESP intervention on the ETT Program is as follows:

1. The development and consolidation of the curriculum for the elementary Teacher Education Program. Specifically, these are the Certificate of Elementary Teaching (CET) and the Certificate of Elementary Teacher Training (CETT).
2. The development of about 140 orthographies for use in teaching vernacular literacy.
3. The construction of 15 Houses for the Provincial Elementary Teacher Training Coordinators (PETTC),
4. The training of counterpart Papua New Guinean specialists in the areas of Special Education, Gender and Literacy,
5. The training and deployment of a teaching force of 9,721 elementary teachers, including trainees by the end of 2002, and
6. A Supervision Structure of 219 field-based Elementary Teacher Trainers, some of whom also have a role to play as Inspectors, at the end of 2002.

Whilst the ETESP was largely providing the funding and technical assistance to the different activities of teacher training, there were also other aspects of elementary education governance that had to be established and institutionalised. These included:

- the processes of implementing the newly developed Provincial Education Plans,
- the registration of schools,
- a Personnel Management System,
- a process for the registration of teachers,
- the planning of further schools,
- the payroll for the large number of new elementary school teachers, and
- curriculum development.

By the end of 2002, the Elementary Teacher Training Program had identified the need to strengthen teacher selection and training, curriculum development and teacher assessment at the Community, District, Provincial and National levels as well the coordination of Provincial Education Plans and establishment of elementary schools.

There are two major awards offered in the Elementary Teacher Training Program through the Papua New Guinea Education Institute formerly known as the Port Moresby Inservice College. The Certificate of Elementary Teaching (CET) for elementary school teachers is a three-year program. The Certificate of Elementary Teacher Training (CETT) for the Elementary Teacher Trainers, is a forty-week program. The nature of these courses is presented below.

There are three components to the CET Course.

The first component is the Trainer-Directed-Training (TDT) workshops that are run each year largely at the district level. These are held during the long Christmas vacation. The TDT is a necessary component because this is the only

time all the trainees are gathered together in large training venues in the districts or, less frequently, in central provincial centres. These training workshops are used to enrol new trainees in the CET and to re-enrol the CET Year 2 and 3 trainees. These workshops can be thought of as induction programs.

Home Study, the second component, involves trainees working on Self-Instructional Units (SIUs). There are eight of these for each of year 1 and 2 and seven for year 3. The trainees are given a set of these SIUs either during or after the workshop. The trainees complete the exercises in the SIUs and submit the mastery test for each for assessment purposes.

The third component of the certificate is the Supervised Teaching. This component involves district-based trainers visiting the trainees at least once a term, appraising their teaching performance and writing up assessment reports. This part of the training program also provides opportunities for the trainer to provide guidance to the trainees.

Trainees are also assessed for their Commitment to Teaching. This provides an avenue for members of the community to have an input in the assessment of the trainee teachers.

The CET is facilitated by a network of qualified field-based Trainers who hold the Certificate of Elementary Teacher Training (CETT). In recent years some provinces have appointed trainers to provide supervision who are not qualified. These people should not be allowed to participate and from 2003 the trainers will be accountable to the Provincial Divisions of Education and the Teacher Education and Staff Development Division of the Department of Education.

There are currently 239 trainers in the field, which includes the trainers undergoing training in 2003. This gives a trainee teacher to trainer ratio of about 30:1, which is slightly higher than was originally anticipated. This is partly because of the establishment of the elementary Inspection system. Due to the increasing number of graduates, a substantial number of trainers are being absorbed into the inspections system. There are some who are performing dual duties and this is the cause of some confusion. The Department is taking steps to address this.

The Certificate of Elementary Teacher Training is an important part of the whole Elementary Teacher Training Program. This is a forty-week course and is organised into two parts. The first part is a twenty-week traditional residential program where participants attend lectures and complete the assessment tasks before they return to their provinces and districts and complete the fieldwork part of the Certificate.

This fieldwork involves the trainer trainees immersion in CET activities. They plan awareness campaigns and are allocated a group of teacher trainees to supervise. They carry out the field visit requirements and write assessment reports for trainees. Successful completion of the assessment requirements leads to the trainees graduating to become fully fledged Elementary Teacher Trainers. Those who fail either of the two components of the CETT return to their teaching activities in the primary sector.

The Elementary Teacher Training Program is heavily influenced by the universal Early Childhood Growth and Development Theories. The CET in particular focuses on recognising the different stages of growth and development of the Papua New Guinean child. The teacher trainees and their trainers learn how to integrate cultural themes as they teach initial basic literacy skills. The teacher trainees are encouraged to recognise play as an important means of developing psycho-social skills in young children as well as allowing children to freely express themselves through natural play. Many of the Early Childhood teaching and learning principles encourage the involvement of parents and community members to assist teachers in teaching.

Multigrade teaching is another very important area that is covered in both of the courses. Teachers and trainers alike are taught to view multigrade teaching as a normal situation, unlike the perception held in the primary sector. They are trained to organise experiences for children of different abilities and ages as well as to organise the classroom for multigrade purposes.

The Elementary Teacher Training Program also prepares teachers and trainers to teach children with special needs, thanks to the Elementary Teacher Education Support Project (ETESP). The Special Education component of this project prepared materials, teachers and trainers to manage the learning experiences of children who have hearing and vision impairments as well as the physically disabled. The main goal is to integrate the disabled children in the mainstream education sector.

At the end of 2002 enrolment in the CET was as follows:

- 1,600 in Year 1,
- 2,757 in Year 2 and
- 2,364 in Year 3.

The gloomy economic situation experienced in 2002 will impact on the Elementary Education Program and hence the future of the Elementary Teacher Training Program in 2003 and beyond. This situation, combined with the uncontrolled expansion of the elementary school system in some parts of the country in 2002, formed the basis for the Ministerial Statement regarding the 'freezing' of new elementary Schools in 2003.

Donors have taken the Ministerial Statement and are now reviewing their earlier commitments in order to reprogram their support for elementary education. AusAID provided assistance through the ETESP which has resulted in the institutionalisation of the Elementary Education Program. The level of assistance that was given between 1997 and 2002 has been scaled down in 2003 to just the funding for the training of year 2 and 3 teacher trainees. This means that an alternative means of funding has to be found to pay for the costs of both the 2003 year 1 intake and the year 1 repeats from previous years.

This has led to the formulation of a 'User Pay' system for the 2003 CET Year intake.

Given the financial constraints and the level of donor assistance that is expected provinces are going to have to consider carefully the way in which they are

organised. The schools that opened in 2001 and 2002 and that will need additional teachers will have to find alternative ways to provide a teacher to cater for the new classes that will be required in 2003. They should use the most cost effective methods that they have at their disposal. In small schools with low enrolments the Teachers In Charge, with support from the trainers and inspectors, will be required to re-organise by using multigrade teaching. Where two classes have a combined total of 33 or less children then they should be multi graded. Elementary Schools within walking distance from each other may have to amalgamate and teachers be re-deployed within the same language groups. The Provinces are aware of the issues resulting from the Ministerial Statement and the cutback in donor assistance and have made their plans accordingly.

As a result of this a cohort of 1,600 trainees will be enrolled in the year 1 program and 20 Trainer Trainees in the CETT in 2003 under a new arrangement. This arrangement includes the provinces, or the trainees themselves, meeting the cost of training for the Year 1 teacher trainee intake.

Constraints

The biggest challenge remains the coordination of the Provincial Education Plans and in particular the Annual Implementation Schedules. In a number of provinces there seems to be little control over the establishment of schools. In many cases schools are opening up outside of the Provincial Education Plans. Although the District Education Authorities have been established, there is little evidence that they are fully participating in the planning and establishment of elementary schools. The implications of this are evident in the school registration and general payroll processes that are currently posing real problems at the national level. The national structure does not have effective mechanisms to offer adequate coordination. Attempts are being made to review the implementation schedules for the establishment of elementary schools through the process of updating the Provincial Education Plans.

The elementary sector has been seen as providing 'real evidence' of the reforms taking place in the education sector since 1993. Whilst attempts have been made to re-structure the Department of Education to adequately cater for the new challenges provided by the education reform agenda, particularly the elementary program, there is still a great deal to be done.

The model used to train elementary school teachers is challenging the mindsets of bureaucrats who were schooled in the 'old' thinking. For example, many Principal Education Advisers in the provinces and some in the Department are calling for the Elementary Teacher Training Program to be fully residential without providing a reasonable educational justification. Many believe that the current model of training elementary teachers is based on 'workshops' only. It is clear that many do not understand the orientation of elementary education including the teacher education program. The challenge is to ensure that as many leaders and parents as possible understand why the teacher training program is as it is.

Parental participation in curriculum development is not understood. Many Provinces have yet to provide funds to fully support the Curriculum Committees in the elementary schools. It is hoped that the AusAID funded Elementary

Education Support Project (EESP), due to start in 2003, will assist in strengthening Curriculum Development and Staff Development processes at the District, Local-level Government and community levels.

Trainers have often used transport as an excuse for not visiting schools and assisting their trainees. Between 1997 and 2002, funds were made available for travel but a significant number of trainers still did not visit their trainees on the required number of occasions. Reports from the parents, partner Church Agencies and community leaders point to a lack of commitment and weak understanding. There have been calls by some to uphold the current innovative model of teacher training but to replace the trainers who are shown to lack the necessary commitment. Given the academic but pragmatic superiority of the training model adopted for the Elementary Education Program and the poor quality of many trainers, this call should be taken seriously.

The provinces are slowly beginning to come to terms with their role in the implementation of the elementary component of the education reforms. In too many provinces, however, the elementary trainer is still responsible for planning the elementary school clusters around the primary schools, posting trainees to schools, recruiting and replacing elementary teacher trainees at will. This function is not theirs. An increasing number of Provincial Education Advisers are realizing that they are the leaders of the elementary program; they must control the activities of the trainers. The trainers are Teacher Educators; they are not planners and they are not paymasters.

Another area that is still misunderstood is the management of the allowances paid to the trainees. Indeed, very few provinces fully understand the formalities and procedures. In particular, the procedure involves two key provincial staff – the Appointments Officer and the Provincial Administrative Officer. They need to understand how the CET Assessment Results dictate the rate of training allowance. The role of the Trainers' is to advise the Administrative Officer and the Appointments Officer in this area. The Administrative Officer should deal directly with payroll while the Appointment Officer must ensure that the trainees are appointed to correctly created teaching positions before they endorse resumption of duty forms.

Challenges for the future

In 2001 two members of the ETESP outlined a number of challenges that needed to be taken up by the Department. These are presented in their entirety, with some possible solutions, in the 2002 edition of the State of Education. As time goes by of course some challenges are met, others fade in significance and new challenges come to the fore. At the end of 2002, the following challenges remain as obstacles to the success of the Elementary Teacher Training Program, and, hence the elementary education system as a whole:

See pages 41 to 47

Challenge #1:

When will the Department establish workable processes to manage the school registration and payroll? Who will be responsible for coordinating the paper trail from the Districts to the Department?

The Planning, Facilitating and Monitoring, General Education Services, and the General Administration and Personnel Divisions, along with the Teaching Service Commission are the responsible authorities currently managing this process. Elementary Teacher Training activities depend largely on the information processed through these divisions. Over the last six years, the provinces have been dealing directly with the Elementary Teacher Training Unit for enrolment in the CET and CETT programs. This process is causing complications for the Master Position Register and for the payroll.

Provinces have been engaging elementary teacher trainees against unregistered schools and the results have been devastating. At the end of 2002, trainers who 'squeezed' elementary teacher trainees into the CET course were facing all sorts of pressure to find ways to pay these unofficial enrollees. In 2003, the Provincial Education Boards are required to provide posting lists together with enrolment lists before trainees are enrolled on the CET.

The systems are there, it is simply that they are not being implemented effectively. A lot of these problems can be avoided if the list of identified schools and teaching positions can be circulated up to two years in advance to the Elementary Teacher Education Unit of the Teacher Education and Staff Development Division. This, again, comes back to the issue of good planning.

Challenge # 2:

Strengthening of the capacity of the National Department of Education to manage the Elementary Teacher Training Program.

The pool of professionals to qualified to be selected to manage the Elementary Teacher Training Program are from the elementary trainers, the elementary inspectors and the primary-trained lecturers with a Primary Teachers Colleges background. The elementary trainers have been trained specifically to manage the elementary teacher training activities through the CETT Course. On the other hand, the Primary Teachers College lecturers bring with them Teacher Education experience with a first or second degree. Usually, the first or second degrees of the Primary Teacher College lecturers are in a specialised subject area not directly related to either the CET or the CETT programs.

There is a policy that a first degree is a pre-requisite to gaining appointment to the Elementary Teacher Training Program at the Papua New Guinea Education Institute (PNGEI). This has served to preclude some of the best possible candidates. There have been examples of trainers currently studying for a first degree in Bachelor of Early Childhood Education, being denied a position at the Elementary Unit of the PNGEI because of the lack of a first degree. Yet, there are no other officers in PNG who are knowledgeable about Early Childhood Teaching and Learning principles and also the entire elementary Education Curriculum. The primary-trained Teachers College lecturers are struggling to understand the elementary Education Program and the Early Childhood theories and practices.

The CET program was developed by specialist writers and is mainly managed by the field-based elementary Trainers. None of the Primary trained lecturers in the

Elementary Unit of the PNGEI were initially involved in the development of the CET course materials.

Whilst the need to get well qualified people into important positions is accepted, the appointment system for the Elementary Unit of the PNGEI needs to be more pragmatic in order to cater for the very special requirements. The appointing authorities should show greater flexibility when it comes to these positions. The CET and the CETT do not require first and second degree holders to manage them.

Challenge # 3

Who will provide the office accommodation for the Elementary Trainers/Inspectors in the Districts?

The issue of trainers and inspectors operating out of their own homes in many places still remains a major challenge. This has been reported in many forums over the past five years but very little has been done. These officers often do not have effective record keeping systems because they do not have office accommodation.

Challenge #4:

Who will provide the resources that both teachers in training and those who have graduated need to do their jobs?

From 1998 to 2001, elementary Kits were procured through AusAID's CASP facility. The ETESP was used to deliver these materials. However, in 2001, there was no replacement of these materials and in 2002, the School Subsidy was considered the best way to replenish the elementary teaching and learning materials. However, the current financial situation experienced throughout the country does not hold out a great deal of hope for new schools. It is to be hoped that the proposed renewal of the CASP for elementary schools goes ahead.

Challenge #5:

The Elementary Unit of the PNGEI has five lecturers, a data management clerk and a typist managing 6,721 elementary trainees and large numbers of field-based trainers. These numbers are far beyond the combined numbers in all the Primary Teachers Colleges put together. The PNGEI has the biggest teacher training program in the country and there is a critical need to increase staff capacity in the Elementary Unit of PNGEI.

PNG will soon have about 40 qualified Trainers and Inspectors with Bachelor of Early Childhood Education qualifications. It is this group who will most likely be used to staff the Elementary Unit, which at present is seriously understaffed. It has been short of three qualified early childhood lecturers and specialist staff for three years. A temporary waiving of the degree requirement is needed until those with appropriate qualifications and relevant experience can be appointed.

Challenge # 6

The PNGEI has been struggling to adopt the Elementary Teacher Training Program for the last six years. The elementary Training activities take place in the November – January period and yet the Elementary Unit does not always have the full support of the PNGEI.

The PNGEI closes during the Christmas Break. This non-recognition of the CET activities affects the printing, transport and delivery of training materials. Many of the facilities shut down during this period and the Elementary Unit has to struggle to get services. The ETESP was able to get around these problems but it has now finished. PNGEI and Teacher Education and Staff Development need to consider institutionalising the support services for the Elementary Teacher Training Program.

Challenge # 7

The AusAID-sponsored ETESP wound up in the 4th Quarter of 2002 resulting in the CET Assessment procedures being compromised. What will become of the large enrolments of children who will progress from elementary Prep class to elementary grade 1 and from elementary grade 1 to elementary grade 2?

One of the problems of being dependent upon donor support is that when the degree and nature of the support is altered, often for good reason, then it is the recipient that suffers. At present, the Department has no support for assisting in meeting teacher demands for the classes that will need a new teacher. There is a great danger that the 'User Pay' Policy noted earlier will seriously compromise the future of the elementary program. Yet this is the program that has the potential to make the greatest impact on village life in PNG.

Curriculum

The scope and sequence was reviewed in late 2001 and the intention was for it to be converted into three distinct subjects: Language, Culture and Community, and Mathematics. The syllabi were developed and trialled and, following consultation with stakeholders in the four regions, they were endorsed by the Elementary Board of Studies in September, 2002.

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These syllabi, along with an Implementation Support Package and Teachers Guides, will be ready for distribution in April, 2003

Inspections

The process for the training of elementary inspectors was continued in 2001 and 2002. There are now 20 Provincial Inspections Coordinators – one in each province. In addition to these there are 55 trainers who also carry out inspections duties. The designation of these 55 is now elementary Trainer/Inspector. There have also been a further 48 elementary trainers trained to carry out inspection duties when the numbers warrant it.

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The registration visits and reports for 2002 were completed in early November. There were four Regional Ratings Conference for the four regions, New Guinea Island, Momase, Southern and the Highlands. These Regional Ratings Conferences are now policy in the elementary ratings process and will continue

in future. In 2002, 868 elementary teachers out of 1347 (64%) were inspected for registration with 731 being registered while 134 were deferred for registration. Three elementary teachers were recommended for termination.

Key statistics

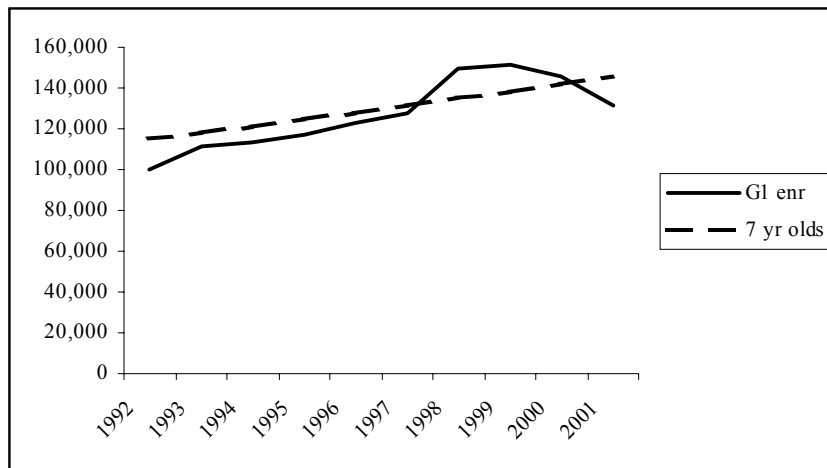
Enrolment rates

The table and chart below compare the number of seven year old children in the country with the number of children enrolled in grade 1. It is a prime aim of Government for all children to be enrolled. The number in grade 1 includes those in both the elementary and the primary schools. It is important to bear in mind that although the figures look very good at first glance the real situation may not be quite so healthy. This is because there are many children in grade 1 who are not seven years old. There are still many eight, nine and even ten year olds attending grade 1 classes.

Table 1: Grade 1 enrolment rates, 1992 to 2001

Year	Grade 1 enrolment	Number of 7 year olds	Admission Rate
1992	99,879	114,885	87%
1993	111,889	117,987	95%
1994	113,703	121,172	94%
1995	117,012	124,444	94%
1996	122,969	127,804	96%
1997	127,550	131,255	97%
1998	149,494	134,799	111%
1999	151,829	138,438	110%
2000	146,127	142,176	103%
2001	131,877	146,015	90%

Figure 1: Grade 1 enrolment and 7 year old population, 1992 to 2001



The teacher pupil ratio for the nation remains much as it has been in previous years. The table below shows these ratios by province.

Table 2: Elementary school teacher pupil ratios by province, 2001

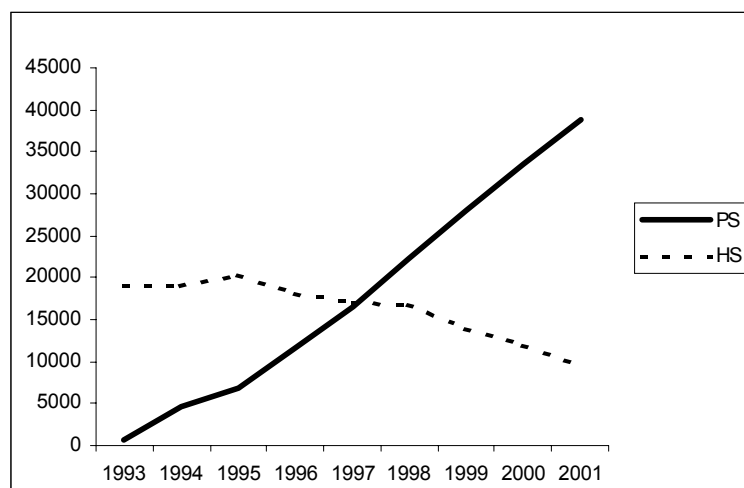
Western	28.4
Gulf	24.9
National Capital	35.0
Central	27.6
Milne Bay	23.3
Oro	23.1
Southern Highlands	26.8
Eastern Highlands	34.3
Simbu	31.5
Western Highlands	32.6
Enga	25.2
Morobe	32.7
Madang	30.8
Sandaun	37.9
East Sepik	26.2
Manus	20.6
New Ireland	20.5
East New Britain	30.3
West New Britain	23.1
North Solomons	24.7
Kiunga Lake Murray	18.3
Papua New Guinea	28.3

PRIMARY EDUCATION

Access

Enrolments in Grade 7 at the primary schools has been rising at about 5000 per year, which is slightly less than the original targets in the National Education Plan. The enrolments in the high schools have been dropping accordingly. This is illustrated in the chart below.

Figure 2: Grade 7 enrolment by type of school



The Grade 6 to 7 transition rate has also been rising although the rate of increase has been slowing down. The following tables and charts show the transition rates by province for the most recent cohort available and the increase over the years.

Table 3: Grade 6 to 7 transition by province, 2000 to 2001

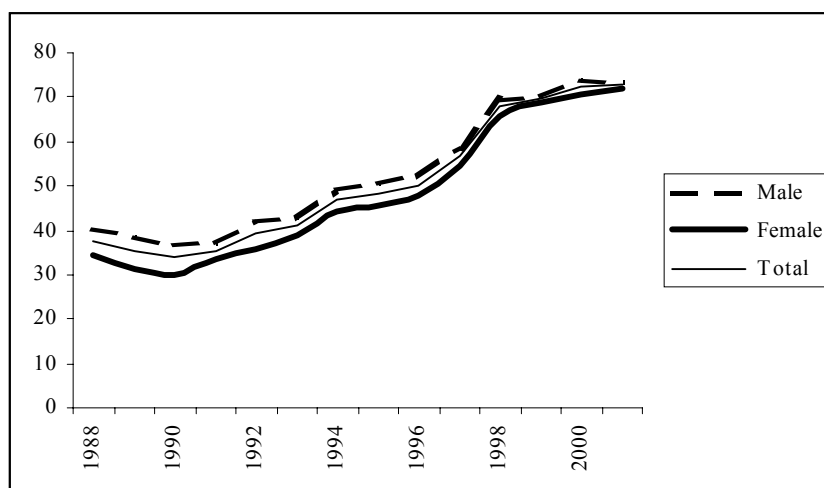
	M	F	T
Western	68.0%	75.4%	71.5%
Gulf	64.5%	67.4%	65.8%
National Capital	104.7%	99.5%	102.1%
Central	76.4%	77.1%	76.7%
Milne Bay	77.1%	73.5%	75.3%
Oro	65.8%	72.4%	68.9%
Southern Highlands	79.1%	92.4%	84.2%
Eastern Highlands	63.3%	56.8%	60.7%
Simbu	62.0%	54.4%	59.1%
Western Highlands	70.3%	69.8%	70.1%
Enga	80.7%	74.4%	78.2%
Morobe	64.8%	60.9%	63.0%
Madang	65.5%	60.8%	63.5%
Sandaun	71.2%	57.7%	65.2%
East Sepik	64.5%	59.0%	61.9%
Manus	82.2%	77.5%	79.9%

New Ireland	81.7%	85.0%	83.3%
East New Britain	85.2%	85.5%	85.4%
West New Britain	90.7%	86.0%	88.6%
North Solomons	69.5%	72.4%	70.9%
Kiunga Lake Murray	83.2%	76.9%	80.4%
Papua New Guinea	73.5%	71.8%	72.7%

Table 4: Grade 6 to 7 transition rates by gender and year, 1987 to 2000 cohorts

Cohort	Male	Female	Total
1987 to 1988	40.1	34.2	37.5
1988 to 1989	38.4	31.4	35.5
1989 to 1990	36.8	29.9	33.8
1990 to 1991	37.3	33.3	35.3
1991 to 1992	41.9	35.9	39.3
1992 to 1993	43.1	38.8	41.3
1993 to 1994	49.2	44.1	46.9
1994 to 1995	50.5	45.7	48.4
1995 to 1996	52.1	47.7	50.2
1996 to 1997	58.4	54.6	56.7
1997 to 1998	69.4	65.8	67.8
1998 to 1999	70.2	68.8	69.6
1999 to 2000	73.7	70.8	72.4
2000 to 2001	73.5	71.8	72.7

Figure 3: Grade 6 to 7 transition by year and gender, 1988 to 2001



Teacher training

Pre service

There are seven Primary Teachers Colleges that continue to offer primary teacher training preparing teachers for grades 3 to 8. Following the successful trialling of a two year trimester program at Madang Teachers College in 2001, all

other colleges have decided to follow suit and the teacher training is now carried out over two years, with each year divided into three semesters. The acceptance of the change by both staff and students has been encouraging.

Given the fact that most of the students entering the program have successfully completed grade 12 or equivalent, the switch in duration did not have serious implications on standard. The colleges were able to successfully trim the curriculum focussing on the essentials to accommodate the program in two years.

The change from a three year (six semester) program to a two year (six semester) program has reduced the unit cost of producing a primary teacher by 33%. This also means less burden for the parents as now they have to support the students and pay the college fee for two years instead of three. Additionally the change has resulted in increasing the enrolment capacity of the colleges by 50%. The additional bed space is of crucial significance for pre-service teachers training as well as the regionalisation of DEPI program.

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The table below shows a breakdown of the 2002 Primary Teachers College enrolments.

Table 5: Primary Teachers College enrolment by gender - 2002

	Year 1	Year 2	Year 3	Total
Total enrolment	1154	734	445*	2333
% age female	42%	42%	44%	42%

*No year three at Madang Teachers College

The percentage of females remains well below that of males. This could be due to Grade 12 being the entry requirement. There is still a problem regarding female participation at the upper secondary level.

East New Britain and Southern Highlands have the highest number of students enrolled for teacher training. Provinces with the least number of students enrolled in teacher training are Oro, Gulf and Western.

There were 164 staff in the Primary Teachers Colleges, which allows a staff student ratio of 1:14, while the approved ratio remains 1:12. Close to 80% of the staff are male. With increasing enrolment of female students, the Department intends to actively canvass for female applicants for teaching positions in teachers colleges. 7% of the staff come under the category of volunteer and overseas contract officers.

With assistance from the AusAID sponsored Primary and Secondary Teacher Education Project (PASTEP), the curriculum at the teachers colleges has been refined and upgraded. The colleges have received substantial quantities of teaching aids and materials under the resource procurement activity of the project. Two Learning Centres funded under the Virtual Colombo Plan have been established at Balob and Madang teachers Colleges.

In service

Qualification upgrading of primary school teachers is an ongoing task. It is estimated that close to 10,000 teachers in the field are without diploma level qualifications which is currently the entry requirement to primary teaching. The Diploma in Education, Primary (Inservice), commonly known as DEPI program has in the past been offered through PNG Education Institute. As of 2002 the program is regionalised to promote access and cost effectiveness.

As a result of regionalisation, batches of DEPI students were enrolled at Madang and Holy Trinity Teachers colleges. Because of space limitation the group that was supposed to be enrolled at Kabaleo Teachers College were accommodated at Kokopo Business College. PNGEI staff continued to teach the program at Holy Trinity and Kokopo, while the Madang students were taught by the staff at the Madang Teachers College.

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and 60

The response from the students enrolled at the regional institutions have been quite positive. The arrangement has helped boost the female enrolments in the programs. Judging by the experience so far, regionalisation of the inservice programs is the way forward as it offers greater access to field teachers to upgrade their competence and qualification.

Similar to the pre-service training curriculum, the Department is embarking on establishing a National Curriculum Guidelines for the Inservice DEPI program. This will allow each of the participating institutions to develop their own curriculum based on the national guidelines and criteria.

The normal DEPI program offered at PNGEI does not include the research component, which is part of the curriculum requirement for graduation. Students are expected to design the research and carry them out in the field the following year, as part of an internship program under guidance from PNGEI staff. This had the disadvantage of delaying the completion of the program by at least a year.

The DEPI students at Madang were allowed to undertake the research projects during their on-campus program. This approach has worked very well and could be a model to follow, as this saves both time and cost. The regionalisation of the program will reduce the cost of the program and make it more teacher friendly in terms of the cost, as the program is run on a user pay mode.

Together with the normal DEPI program, PNGEI ran a parallel certificate program in Special Education for teachers in primary schools and Special Education Resource Centers. It is anticipated that the program will be upgraded to diploma level in the near future.

Negotiations are underway with the University of Goroka for accreditation of the DEPI program. A Memorandum of Agreement has been signed for this purpose by University of Goroka and the PNG Education Institute.

Curriculum

At the lower primary level the syllabi have been reviewed and it is hoped that revised editions will be ready for the Board of Studies by May, 2003, with distribution scheduled for early in 2004.

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and 61

Teachers' guides for these syllabi will be developed in 2003 and these, with an Implementation Support Package, will be sent to schools in 2004.

Progress has been rather more rapid at the upper primary level and the syllabi are due to be distributed in April, 2003. There is, again, an Implementation Support Package to accompany the syllabi that will be distributed at the same time.

The distribution of materials continues to be an enormous problem. Late in 2001 and in 2002 CRIP funded a review of curriculum materials storage and distribution systems and practices throughout the country. The report provided a detailed analysis of the effectiveness, or otherwise, of the distribution systems in the country. A national workshop was held in late 2002 to review the findings and to use this as the basis for a new national distribution and storage policy to be adopted nationally. This will provide the basis for major curriculum materials distribution in 2003 and 2004.

Standards

The Australian Council for Educational Research (ACER) has completed a study of the feasibility of implementing curriculum standards monitoring test in PNG. The report recommended the development of a test which assesses standards in mathematics and literacy at grades 3, 5 and 8. The test would sample the performance of students in each of the four regions and would be conducted every two or three years. The objective would be to monitor standards over a period of at least ten years. The Department has accepted the recommendations of the report and requested the development of a pilot program to be funded through CRIP. It is hoped that it will provide more information than simply data concerning education standards. This will be carried out in 2003, subject to the availability of funds.

CRIP is also funding a series of impact studies to evaluate key elements of the education reform process. The first of these studies is a five year longitudinal study of the impact of the reform on students, schools and communities. The study, which is led by the University of Wollongong, involves teams of researchers visiting fourteen school sites around the country to gather information. The research teams will be looking at the impact that the reform curriculum has had on learning outcomes at both the elementary and primary levels as well as the impact of vernacular education on literacy and numeracy in the primary schools. The researchers are required to provide six monthly reports to an Impact Steering Committee.

A second impact study has been conducted to assess the effectiveness of workshops run to train teachers in strategies for bridging to English for children in grades 3 to 5. The National Research Institute carried out this study and found that although the training benefited teachers the workshops were not necessarily the best way in which to provide the training. There were problems of distance to travel for the workshops with related cost concerns. It was considered that there it was important to have in school supervisors to assist teachers in implementing the new curriculum. CRIP will be using these findings to develop the new lower primary in service program.

The standards at grade 8 still cause concern for many and it is important that the Department, through the Measurement Services Unit, continues to monitor these. It has been reported in the past that the high schools have achieved better

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results in the Certificate of Basic Education (COBE) grade 8 examinations than the primary schools. A difference would be expected because the students attending high schools have been selected, whilst all those in primary schools have proceeded directly from Grade 6 in to Grade 7.

The most recent results available are for the years 2000 and 2001. The results show that the high schools still perform better at grade 8 in numeracy and general skills but that the difference in literacy skills is minimal. It is important to note that only ten provinces returned data in 2000. Nothing should be read into the fact that the mean literacy mark has dropped between 2000 and 2001. The table and charts below illustrate these figures.

Table 6: COBE mean marks for 2000 and 2001 by type of school and subject

	Year 2000		Year 2001	
	Literacy	Numeracy	Literacy	Numeracy
Primary	30.1	22.8	28.2	22.8
Secondary	30.1	25.2	28.7	25.0
PNG	30.1	23.5	28.3	23.3

Figure 4: 2000 COBE results by subject and type of school

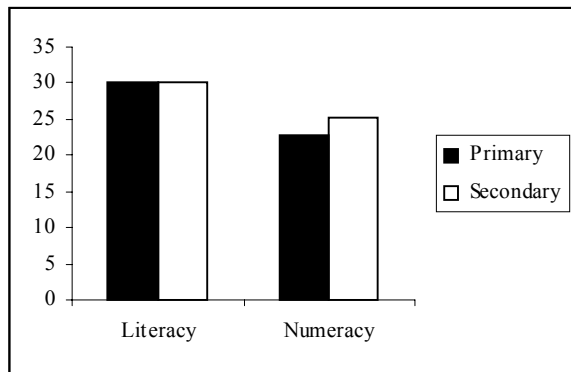
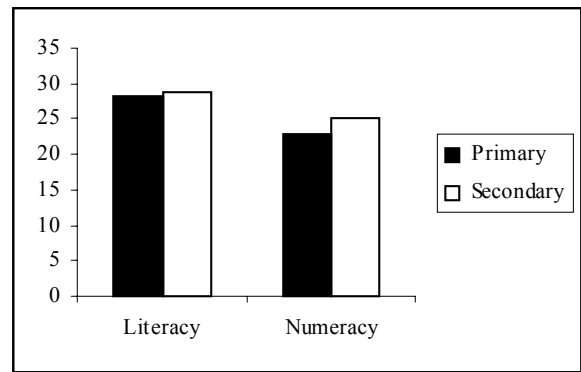


Figure 5: 2001 COBE results by subject and type of school



Of possibly greater concern for the system should be the huge variation that there is between provinces. The table and the two charts below show, for literacy and numeracy skills, the mean marks for the provinces for which information is available for analysis.

Table 7: COBE mean marks by province, subject and type of school, 2001

	Literacy Skills		Numeracy Skills	
	Primary	Secondary	Primary	Secondary
Western	21.5	30.8	14.7	19.1
Gulf	24.3	23.3	16.4	17.0
Central				
Milne Bay	27.5	33.8	20.1	27.1
Oro	25.6	29.6	19.0	23.7
SHP	28.6	21.9	28.6	22.1
EHP	30.3	27.7	26.9	24.9
Simbu	29.4	27.7	28.0	23.6
WHP	29.9	30.1	29.0	29.1
WSP				
ESP	26.8	31.5	19.7	24.9
Madang	27.1	28.3	21.6	26.4
Morobe	28.3	30.4	22.8	26.5
WNB	25.3	26.0	20.3	24.2
ENBP	28.7	32.3	21.8	26.6
NIP	27.5	27.1	20.2	20.7
NSP	25.2	25.6	18.6	19.9
Manus	30.1	27.8	25.4	23.1
NCD	33.7	•	25.6	•
Enga	27.1	24.7	27.3	24.8
KLM	23.2	34.4	17.2	27.9

Figure 6: Literacy Skills mean marks by province and type of school, 2001

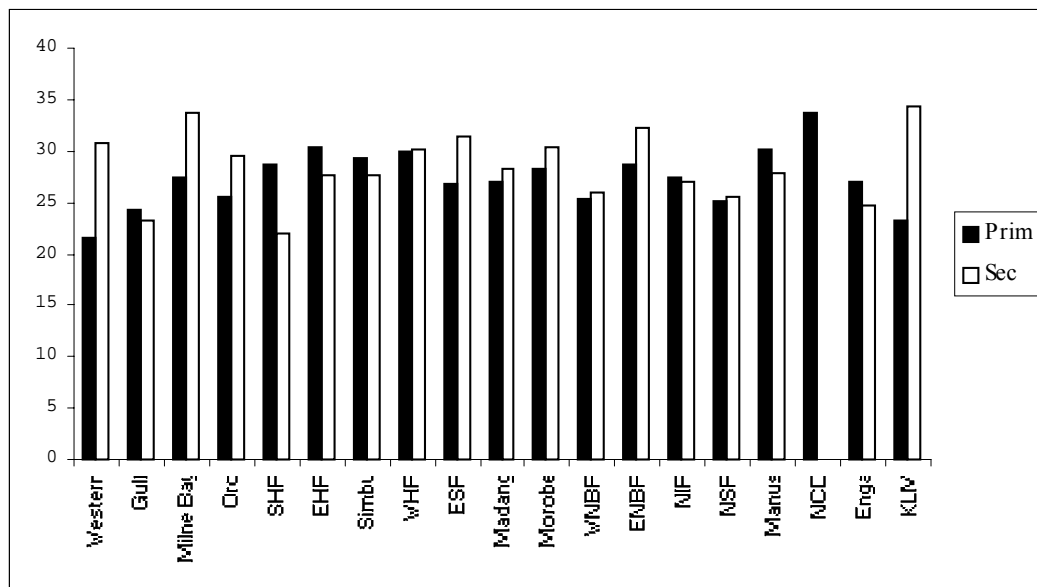
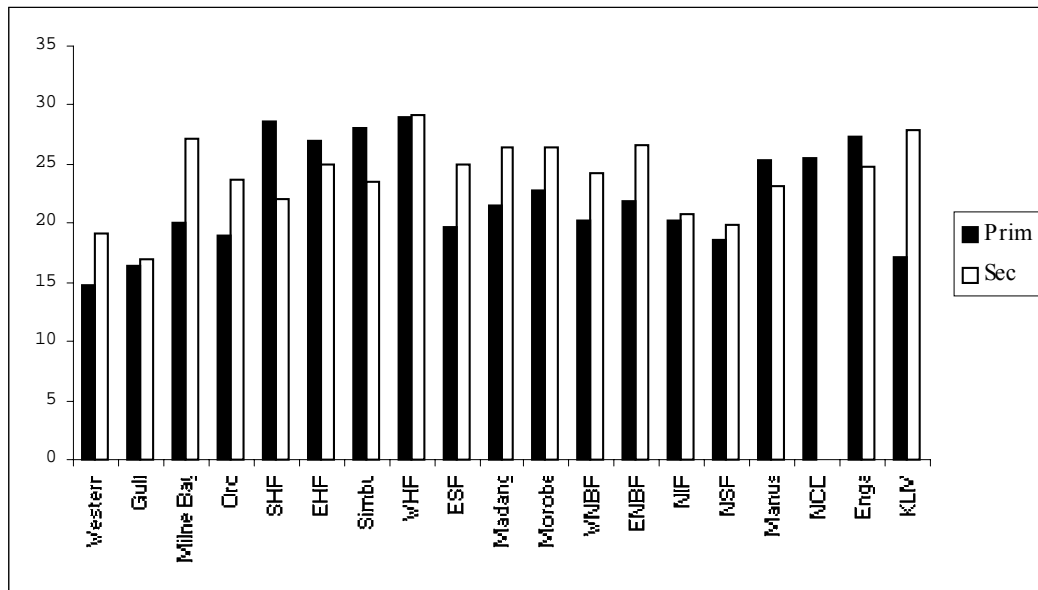


Figure 7: Numeracy Skills mean marks by province and type of school, 2001

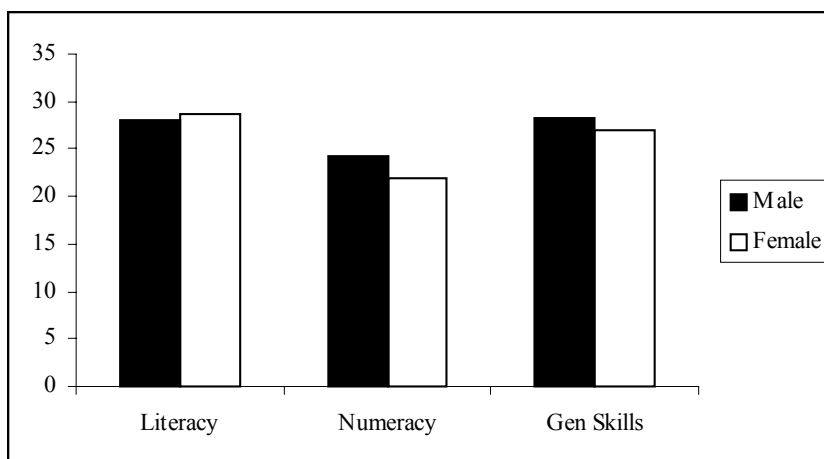


The table and chart below show the mean literacy, numeracy and general skills marks by gender in 2001. The scores follow the pattern observed in previous years in that girls perform equally as well as, if not better than, boys on average in Literacy Skills but boys perform better than girls in Numeracy and General Skills. Again, there are large differences between the provinces.

Table 8: COBE mean marks by subject and gender, 2001

	Literacy	Numeracy	Gen Skills
Male	28.0	24.3	28.2
Female	28.7	21.9	26.9

Figure 8: COBE mean marks by subject and gender, 2001



The 2001 COBE examinations results have also been analysed by age. The results suggest that the younger children, those that enter school at a younger age, perform better than the older children. This is a similar conclusion to that reached in regards to the School Certificate Examination.

Figure 9: COBE Literacy mean marks by age, 2001

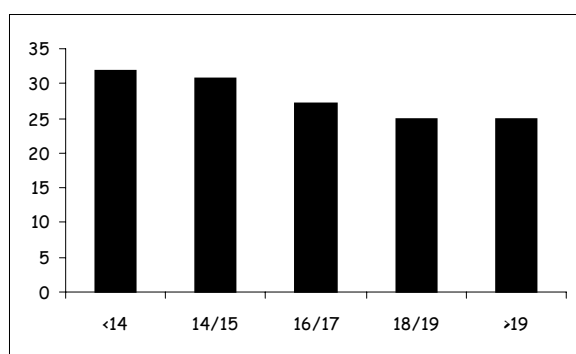
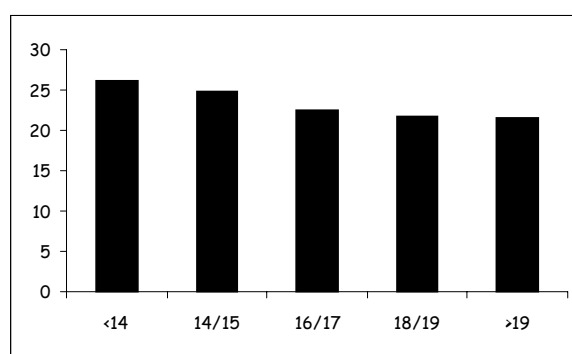


Figure 10: COBE Numeracy mean marks by age, 2001



Inspections

The Inspections and Guidance Division has experienced enormous problems in recent years in financing the visits of inspectors to schools. The situation eased in 2000 and 2001 with significant sums of money being made available through the Government Assistance to Quality Education Program. However, in 2002 there was no funding made available and the bureaucratic processes of allocation of funds and problems created through non-acquittals of previous operational funds did not allow the Division to operate effectively. In addition, the centralisation of the major travel items and the completion of the World Bank project meant that the Division was again desperately short of funding. This did not however affect individual inspectors who carried out their work with changes in approaches and support from provinces and with their own personal resources. Quality Initiatives in PNG Education funds were used to carry out inspection visits but not advisory visits.

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The recommendations included in the Tololo Review of October, 1995 are being implemented to give a greater emphasis to school based appraisal. This was trialled in four provinces in 2000 - NCD, Central, East New Britain and Western Highlands. It is now being extended to all provinces and a School Based Supervision and Management Reform Handbook, after further trialling, is being produced.

The ongoing training of inspectors at the primary level is an important issue and the Curriculum Reform Implementation Program continues to provide workshops to equip the Inspectors with information about the reformed curriculum and teaching methods, as well as the change in focus towards skills development and outcome base curriculum. The Division also continues to co-sponsor inspectors who are willing to meet tuition fees and other related fees by maintaining them on full salary whilst they are at the University of Goroka.

Key statistics

Enrolment rates

The usual enrolment rate that is used has in the past being for grades 1 to 6. This is grade 1 to 6 enrolment as a percentage of the 7 to 12 year age group. The table below includes children enrolled in grades 1 and 2 in both the elementary and the primary sectors.

Table 9: Grade 1 to 6 enrolment rates by gender and province, 2001

	Male	Female	Total
Western	85%	85%	85%
Gulf	64%	58%	61%
National Capital	87%	89%	88%
Central	92%	92%	92%
Milne Bay	81%	89%	85%
Oro	73%	71%	72%
Southern Highlands	56%	47%	52%
Eastern Highlands	77%	69%	74%
Simbu	84%	71%	78%
Western Highlands	76%	71%	74%
Enga	66%	54%	60%
Morobe	72%	66%	69%
Madang	67%	62%	65%
Sandaun	73%	63%	68%
East Sepik	73%	67%	70%
Manus	89%	90%	89%
New Ireland	79%	79%	79%
East New Britain	92%	91%	91%
West New Britain	84%	81%	83%
North Solomons	96%	94%	95%
Kiunga Lake	88%	79%	84%
Murray			
Total	75%	70%	73%

The overall rate is rather lower than might have been hoped but this is not unexpected given the problems experienced with data collection in 2001 as explained in the introduction.

The grade 3 to 8 enrolment rates will become more relevant as the education reform progresses. The table below includes grade 7 and 8 students in both the primary schools and the high schools.

Table 10: Grade 3 to 8 enrolment rates by gender and province, 2001

	Male	Female	Total
Western	73.4%	72.0%	72.7%
Gulf	49.7%	44.2%	47.1%
National Capital	82.2%	83.3%	82.7%
Central	71.7%	67.8%	69.9%
Milne Bay	66.2%	74.4%	70.1%
Oro	56.3%	56.7%	56.5%
Southern Highlands	38.9%	30.6%	35.0%
Eastern Highlands	57.6%	47.9%	53.2%

Simbu	63.2%	48.2%	56.4%
Western Highlands	56.1%	50.5%	53.5%
Enga	52.3%	40.3%	46.8%
Morobe	55.8%	49.5%	52.9%
Madang	55.0%	49.5%	52.4%
Sandaun	51.3%	41.7%	46.8%
East Sepik	52.7%	47.3%	50.1%
Manus	72.9%	75.0%	73.9%
New Ireland	66.4%	70.0%	68.1%
East New Britain	77.9%	76.9%	77.4%
West New Britain	66.9%	61.7%	64.4%
North Solomons	84.6%	84.9%	84.8%
Kiunga Lake	79.8%	69.3%	74.8%
Murray			
Total	59.1%	53.9%	56.7%

Retention rates

Retention rates continue to be poor with almost half the children who enrol in grade 1 dropping out before they have completed grade 6. The figures for the most recent cohort available are shown in the table below. The national figure is similar to that of previous years. The figures in this table include children who received their education at both the elementary and the community schools. It is, unfortunately, not possible to provide comparative retention figures for the two groups of children. Nevertheless, there is not as yet any evidence to suggest the improvement in retention that was hoped for as a result of the introduction of elementary education.

The highlands provinces again have the worst retention rates. Girls perform slightly less well than boys.

Table 11: Grade 1 to 6 retention, 1996 to 2001, by gender and province

	Male	Female	Total
Western	75.7%	76.2%	75.9%
Gulf	43.9%	41.4%	42.8%
NCD	88.6%	89.8%	89.2%
Central	64.0%	59.6%	61.9%
Milne Bay	61.9%	67.4%	64.6%
Oro	57.0%	57.0%	57.0%
Southern Highlands	48.0%	36.2%	42.4%
Eastern Highlands	41.6%	31.5%	37.0%
Simbu	42.6%	28.2%	35.9%
Western Highlands	49.1%	44.7%	47.1%
Enga	38.9%	50.6%	42.7%
Morobe	55.9%	53.6%	54.9%
Madang	55.4%	57.5%	56.3%
Sandaun	56.4%	47.5%	52.4%
East Sepik	54.7%	52.7%	53.8%
Manus	70.4%	77.6%	73.7%
New Ireland	72.4%	70.3%	71.4%
East New Britain	73.2%	73.8%	73.5%

West New Britain	55.3%	64.0%	58.9%
Bougainville	107.9%	100.3%	104.1%
Kiunga Lake Murray	73.6%	68.3%	71.1%
Total	55.8%	53.7%	54.8%

As the country moves closer to its principal objective in education – that of allowing every child an opportunity of completing nine years of basic education the grade 1 to 8 retention rate is going to become increasingly important. The table below shows the figures by province and gender for the latest available cohort. The national figure show that about 35% of children who started grade 1 in 1994 completed grade 8 in 2001. This figure is comparable with those of previous years.

Table 12: Grade 1 to 8 retention, 1994 to 2001, by gender and province

	Male	Female	Total
Western	60.4%	42.0%	51.5%
Gulf	32.5%	34.1%	33.2%
NCD	81.4%	75.7%	78.6%
Central	43.8%	39.5%	41.8%
Milne Bay	41.1%	46.8%	43.8%
Oro	32.4%	39.7%	35.7%
Southern Highlands	44.9%	33.3%	39.6%
Eastern Highlands	23.4%	17.2%	20.6%
Simbu	30.7%	20.3%	26.0%
Western Highlands	25.0%	21.4%	23.3%
Enga	32.4%	22.6%	28.1%
Morobe	32.1%	28.4%	30.5%
Madang	35.7%	32.7%	34.4%
Sandaun	23.2%	19.8%	21.7%
East Sepik	33.1%	26.1%	29.8%
Manus	64.3%	62.7%	63.6%
New Ireland	49.0%	52.3%	50.5%
East New Britain	43.7%	47.3%	45.4%
West New Britain	41.4%	35.3%	38.5%
Bougainville	46.1%	52.5%	49.2%
Kiunga Lake Murray	67.2%	60.9%	64.5%
Total	37.2%	33.4%	35.5%

Teacher pupil ratios

Teacher pupil ratios in the primary sector have been rising slightly in recent years reflecting the reported severe shortage of teachers in some areas. In addition, there are still a number of schools that have got Grade 7 and 8 classes but have not yet shed their grade 1 and 2 classes.

Table 13: Primary school teacher pupil ratios by province, 2001

Western	31.5
Gulf	40.8
National Capital	34.5
Central	28.8
Milne Bay	34.6
Oro	37.2
Southern Highlands	43.3
Eastern Highlands	44.7
Simbu	31.2
Western Highlands	36.1
Enga	39.6
Morobe	40.7
Madang	37.4
Sandaun	32.4
East Sepik	42.6
Manus	23.6
New Ireland	24.7
East New Britain	29.7
West New Britain	28.6
North Solomons	30.5
Kiunga Lake Murray	34.3
Papua New Guinea	35.5

Of greater concern than the overall teacher pupil ratio is the ratios by grade. These are shown in the table below. The average grade 1 class has more than 50 children. This figure is slightly higher than the previous year and initial figures from 2002 suggest that it will rise further. The reasons for this still need to be explored but may be related to the fact that elementary schools have yet to be opened in some of the most remote parts of the country. It is these areas that have the greatest difficulty in attracting teachers

The teacher pupil ratio in the upper primary grades is only 21.8. This figure suggests that some provinces are still deploying too many teachers in these classes.

Table 14: Teacher pupil ratios by grade, 2001

Grade 1	51.2
Grade 2	45.3
Grade 3	40.0
Grade 4	36.9
Grade 5	34.3
Grade 6	31.0
Grade 7/8	21.8

SECONDARY EDUCATION

Access

The numbers in grades 9 and 10, lower secondary education, continue to rise as provinces increase the number of primary schools offering grades 7 and 8. This means that the grade 7 and 8 classes in the secondary schools can be replaced by grades 9 and 10. The numbers in Grade 10 have increased dramatically since the introduction of the education reforms. There were 11,612 in 1993, 15,562 in 1997 and more than 23,000 in the year 2001. This is an increase of some 100% over just eight years. This is, according to the 2000 census figures, approximately 18% of the 16 year age group. Whenever there is such a rapid rate of access one would expect an overall drop in standards.

At the upper secondary level there are now 42 system schools offering a grade 11 and 12 education. The schools in the following table have been recently opened.

See pages 82 and 83

Table 15: Recently established schools offering grades 11 and

12

School	Province	Agency
Daru	Western	Government
Mainohano	Central	Catholic
Martyrs	Oro	Catholic
Lae	Morobe	Government
Kokopo	East New Britain	Government
Utmei	East New Britain	Government
Manus	Manus	Government

The table below gives details regarding selection into grade 11 by province for the 2003 school year. It only deals with system schools. It does not include the national high schools, of which there are six, or the permitted schools, of which there are five.

The first column is the province. The second column in the table shows the number of schools offering grades 11 and 12 in each of the provinces. The third column shows the number of places available in grade 11 in the province while the fourth is the number of students actually selected for the secondary schools. This figure does not include those selected for the National High Schools. Many provinces have spaces in their grade 11 classrooms and this is shown in the fifth column. It is discussed in greater depth below. The final column shows the number of students who achieved the criteria of four upper pass grades but were not offered a place in grade 11 either in the Secondary or the National High Schools.

Table 16: Grade 11 selection by province

Province	Schools	Places available	Number selected	Spaces	Not selected
Western	3	260	145	115	
Gulf	1	60	57	3	
Central	2	130	131	0	50
NCD	4	495	492	3	410
Milne Bay	2	303	303	0	2
Oro	2	140	101	39	
Southern Highlands	3	370	201	169	2
Enga	2	255	255	0	
Western Highlands	2	330	323	7	234
Simbu	2	240	248	0	62
Eastern Highlands	1	179	179	0	276
Morobe	3	452	451	1	187
Madang	2	201	201	0	210
East Sepik	2	271	272	0	0
Sandaun	1	90	93	0	78
Manus	2	160	115	45	0
New Ireland	1	108	108	0	89
East New Britain	3	319	319	0	99
West New Britain	2	245	182	63	20
North Solomons	2	280	188	92	0
	42	4888	4364	537	1719

It needs to be pointed out that the figures in the table above only includes those selected through the normal process. The National Education Board still has to endorse grade 11 selection. However, there is considerable evidence to suggest that a further 'selection process' takes place in certain provinces. This second round of selections places some students into grade 11 who have not achieved the criteria required for selection. It is not quite clear who carries out these later selections. One likely effect is that the grades attained at the end of grade 12 will drop due to the lower calibre of student selected. This particular issue was highlighted in a letter published in the Post Courier on 29/1/03. It concerned one named province. Below is an extract from that letter:

See page 84

'Those students who has not made the grades have been allowed in through the back door to maintain their political regime and continuity.

Such back door arrangements are not only unethical, but also bad for academic achievement.

Projected poor performances of such students have pulled down the over all average of the whole school to (such) a low level that the best students grading in the HSC exams have been affected.'

There are two things that can be done to solve this issue. Firstly, selection for grade 11 could be made a provincial responsibility. This could not be done until

such time as the national high schools have been passed over to the provinces (see below). The schools may not be too happy with such a solution because many would be concerned about possible interference in selection. The other option is completely the opposite and would entail the Secretary for Education refusing to certify any student not selected through the official selection process and endorsed by the National Education Board.

The Facilitating and Monitoring Unit has been recommending provinces not to open more schools offering grades 11 and 12 for a number of years now. Unfortunately, this advice has not been heeded and some provinces now find themselves in a position where there are more positions available than there are eligible students. Three provinces – Western, Oro and Manus – have opened schools in recent years that they have had no need for in order to satisfy the demand for places. The provinces most in need of further places in secondary schools are the NCD, the Eastern and Western Highlands, Morobe and Madang.

This rapid expansion in the number of secondary schools exacerbates the problems that were highlighted in the State of Education, 2002. In particular, there is still a desperate shortage of qualified Papua New Guinean teachers to teach at the upper secondary levels. In addition to this, many of the more recently established schools have little chance of attracting donor assistance in the short term for the upgrading of infrastructure. Daru is an exception to this thanks to support from Ok Tedi.

See pages 88 to 90

The debate regarding the future of the National High Schools has again arisen. The Minister for Education has recently stated that they will be handed over to the provincial governments. This is contrary to the decision made by the National Education Board at its meeting held in Kundiawa in 2000. Kerevat is the first of the schools planned to be handed over. All students selected for Kerevat in 2003 were from the East New Britain Province. A number of the grade 12 students at the school are, of course, from other provinces as well. It is sensible then for the Department to retain control until such time as all the students in the school are from the 'home' province. There are many other issues that need to be resolved. These include:

- A timetable for the handing over of the schools to the Provincial Governments. What happens if a province does not want to take on the National High Schools? Such a situation is not as unlikely as it may seem.
- What type of schools they will become. The Department assumes that they will become Secondary Schools offering a grade 9 to 12 education. Kerevat will, then, become a school the same as Malabunga with both a grade 9 and a grade 11 intake from 2004.
- If they do become Secondary Schools then all the teaching positions in the school will have to be reclassified. What will happen to the teachers already at the school? It would seem only fair that an agreement is made regarding a non reduction allowance for those teachers affected.
- Funding issues. Exactly when will the provinces take on the financial responsibilities? It would seem sensible that the precedent set in 2003 by Kerevat be continued with the Department of Education being responsible for the first year of the change. In addition, the National High Schools have been enormously expensive to administer in the past. As recently as two or three

years ago they were being given an extra K500 over and above the education subsidies that all schools received.

Teacher training

The University of Goroka continues to be the sole source of teachers for secondary schools. The pre service degree course is of four year's duration and there are approximately 150 students each year. In addition to these the University has continued to run the Post Graduate Diploma of Education through a mixed mode delivery. It is unfortunate that there was no intake at the end of 2002 due to the financial situation.

See pages 86, 89
and 90

The Department of Education also sponsors teachers and education administrators through a two year B Ed course at the University. There are approximately 70 each year, many of whom are secondary school teachers. About 30% of these are women.

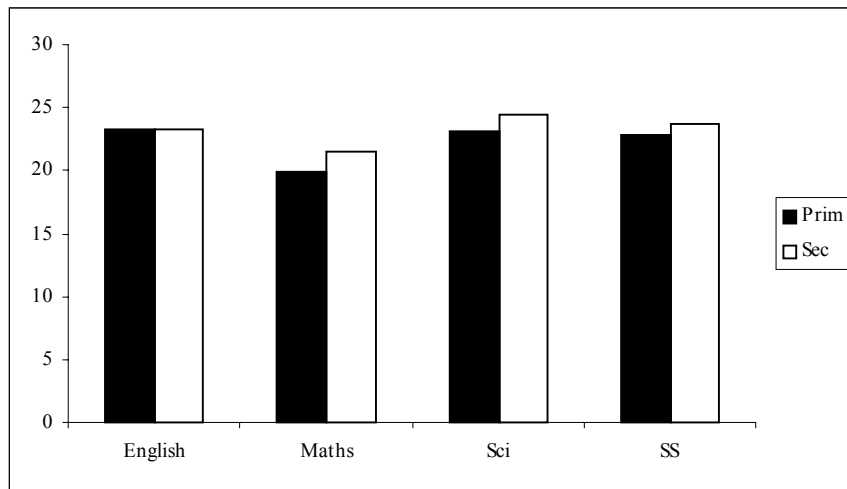
Standards

It is important that readers refer to the State of Education, 2002 when considering the implications of the following. It is very dangerous to leap to conclusions when different provinces are at different stages in their implementation of the education reform. It is particularly dangerous to compare the results of those who have completed grade 8 at the primary schools with those who have attended the high schools. There are still some provinces in which all grade 8 students pass into grade 9. This means that students in these provinces can reach grade 10 without having to counter any selection process. In other provinces all children reaching grade 9 will have to contend with at least one selection process. Common sense tells us that the students in grade 10 who have to face selection will tend to achieve better marks than those who have been able to pass straight through the system.

See pages 71 to 73

The chart below compares, for 2002, the average Grade 10 marks of those who attended Grade 8 in the primary schools against those who attended Grade 8 in the high schools.

Figure 11: Grade 10 mean marks by type of grade 8 school attended, 2002



Grade 10 marks have also been analysed by age. The chart below shows the mean marks by subject and age range. It is clear that the younger students perform better than the older ones and simply underlines the importance for parents of trying to ensure that their children enrol in school at six years of age. There are only a very small number of students of 14 years of age and over 21 years.

Figure 12: Grade 10 mean marks by age and subject, 2002

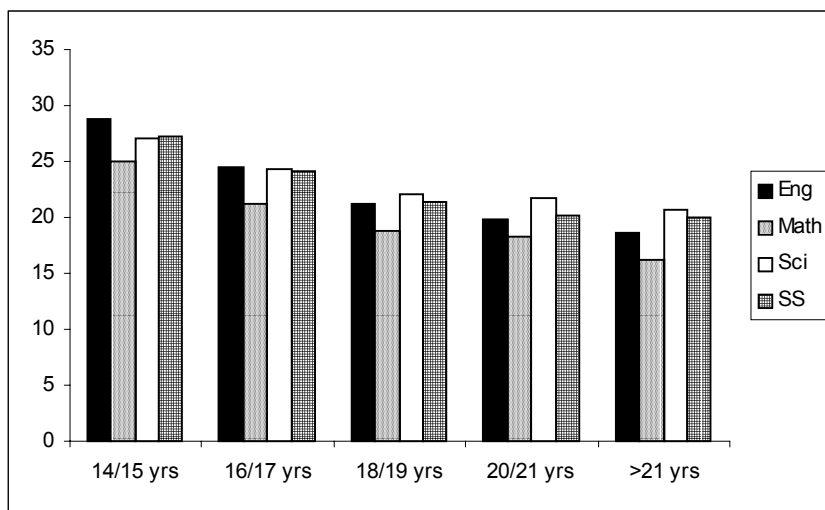
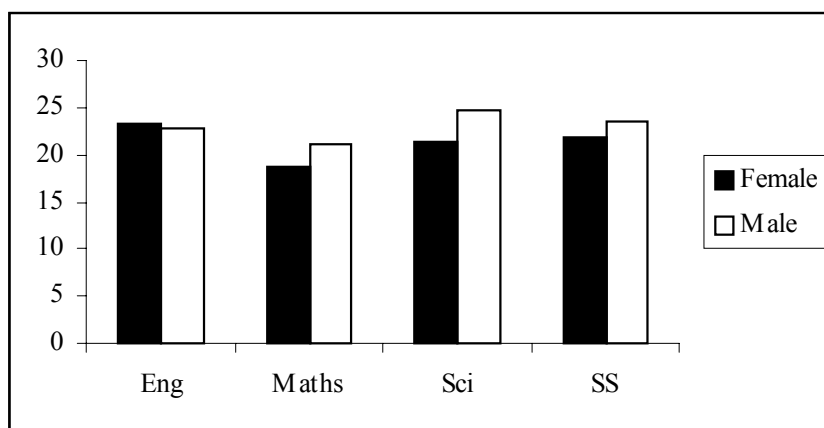


Figure 13: Grade 10 mean marks by subject and gender, 2002



Curriculum

It is unfortunate that very little has been achieved with secondary curriculum.

See pages 70, 86 and 87

CRIP can only fund the development of the curriculum framework that was endorsed by the Secondary Board of Studies in 2001. It was planned to develop syllabuses but this has not been possible due to funding and staffing

constraints.

There continues to be school based curriculum development in the upper secondary schools. A template has been developed by the Curriculum Development Division to support schools in their efforts. An accreditation committee has been formed to consider submissions put in by secondary schools. This committee is at present considering a number of proposals from Kimbe, Fatima and Kilakila. These are in the area of technology and computing. Following approval by the accreditation committee, the submissions then have to go to the Secondary Board of Studies for final endorsement.

Inspections

Attempts are now being made for all Inspectors to obtain first degree

See page 88

qualifications. Ideally, all Secondary Inspectors should have the opportunity to obtain a Masters degree but this has to be seen as a long term aim.

The problem of the training of new Inspectors remains and, given the current financial climate, will continue for the foreseeable future. The Division is now intending to produce training manuals to support the training and professional needs of new inspectors.

Key statistics

Enrolment rates

The secondary enrolment rate has in the past been the number of children in grades 7 to 10 as a percentage of the 13 to 16 year age group. As the education reform agenda progresses the enrolment rates that are used will also change. Three tables of enrolment rates are given here:

- the traditional secondary rate for grades 7 to 10 that includes grades 7 and 8 in the primary schools,
- a lower secondary enrolment rate that is the number of students in grades 9 and 10 as a percentage of the 15 and 16 year age group, and
- an upper secondary enrolment rate that is the number of students in grades 11 and 12 as a percentage of the 17 and 18 year age group. This can not be given by province because of the continued existence of the national high schools that admit students from a number of different provinces.

Table 17: Grade 7 to 10 enrolment rates by gender and province, 2001

	Male	Female	Total
Western	45.4%	35.3%	40.5%
Gulf	28.9%	25.2%	27.1%
National Capital	55.2%	54.9%	55.1%
Central	41.0%	35.9%	38.6%
Milne Bay	33.7%	37.0%	35.3%
Oro	28.5%	28.9%	28.7%
Southern Highlands	22.2%	15.0%	18.9%
Eastern Highlands	27.9%	20.3%	24.5%
Simbu	35.3%	22.3%	29.4%
Western Highlands	27.5%	21.3%	24.6%
Enga	29.5%	19.2%	24.8%
Morobe	27.9%	23.2%	25.7%
Madang	27.3%	21.6%	24.6%
Sandaun	27.3%	20.7%	24.2%
East Sepik	27.9%	22.6%	25.4%
Manus	59.1%	57.2%	58.2%
New Ireland	41.3%	47.0%	44.0%
East New Britain	46.3%	48.8%	47.4%
West New Britain	42.1%	33.4%	38.0%
North Solomons	34.7%	34.8%	34.7%
K L Murray	47.2%	35.0%	41.4%
Papua New Guinea	32.2%	27.2%	29.9%

Table 18: Grade 9 and 10 enrolment rates by province and gender, 2001

	Male	Female	Total
Western	32.0%	20.7%	26.6%
Gulf	23.6%	18.8%	21.3%
National Capital	33.3%	34.2%	33.7%
Central	34.0%	28.0%	31.2%
Milne Bay	23.4%	25.2%	24.3%
Oro	19.9%	17.0%	18.6%
Southern Highlands	14.6%	7.9%	11.5%
Eastern Highlands	21.2%	14.9%	18.3%
Simbu	28.0%	16.0%	22.4%
Western Highlands	20.1%	13.7%	17.0%
Enga	20.6%	12.3%	16.9%
Morobe	18.8%	14.8%	16.9%
Madang	17.5%	13.5%	15.6%
Sandaun	17.4%	14.5%	16.1%
East Sepik	20.9%	17.2%	19.1%
Manus	52.6%	50.0%	51.4%
New Ireland	33.0%	40.4%	36.6%
East New Britain	33.4%	37.6%	35.4%
West New Britain	27.2%	19.2%	23.4%
North Solomons	25.3%	20.6%	23.0%
K L Murray	30.7%	20.5%	25.9%
Papua New Guinea	22.6%	18.0%	20.4%

Table 19: Upper secondary enrolment rate by gender, 2001

	Male	Female	Total
Papua New Guinea	6.2%	3.7%	5.0%

Transition rates

The increase in numbers in grade 8 in the primary schools will result in a drop in the transition rates between grades 8 and 9. The tables and chart below show this by province for the most recent cohort available and also, nationally, since the commencement of the reform process.

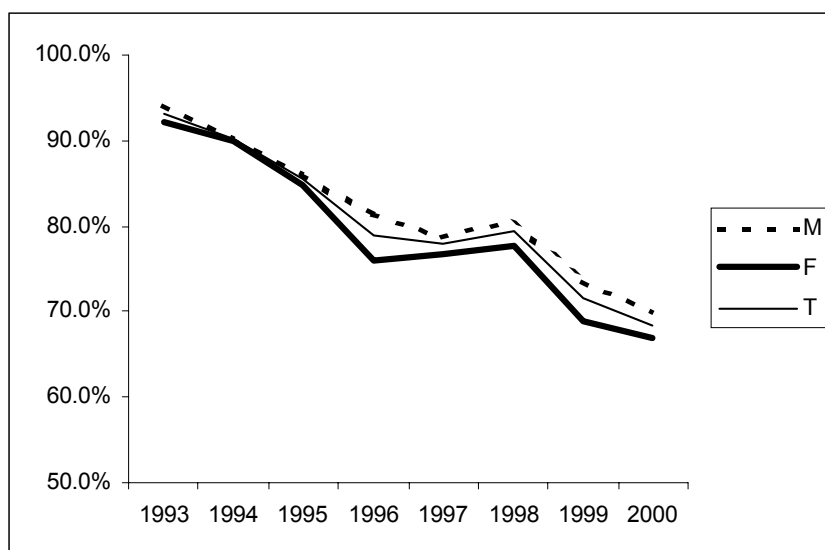
Table 20: Grade 8 to 9 transition by gender and province, 2000 to 2001

	Male	Female	Total
Western	72.4%	51.6%	62.8%
Gulf	78.5%	64.2%	72.0%
National Capital *	45.1%	51.2%	48.0%
Central	92.5%	87.6%	90.3%
Milne Bay	70.3%	69.5%	69.9%
Oro	69.3%	62.8%	66.4%
Southern Highlands	74.0%	66.0%	71.2%
Eastern Highlands	69.6%	73.0%	70.9%
Simbu	64.4%	54.7%	60.8%
Western Highlands	73.9%	67.8%	71.4%
Enga	86.3%	72.7%	81.6%

Morobe	67.6%	65.6%	66.8%
Madang	54.2%	51.0%	52.8%
Sandaun	83.8%	84.2%	84.0%
East Sepik	65.7%	68.9%	67.1%
Manus	89.6%	84.5%	87.2%
New Ireland	77.7%	88.6%	83.3%
East New Britain	85.2%	95.4%	90.1%
West New Britain	61.0%	54.8%	58.3%
North Solomons	71.2%	56.0%	63.8%
Kiunga Lake Murray *	57.7%	48.4%	53.7%
Papua New Guinea	69.7%	66.8%	68.5%

The National Education Plan had as a target a 50% transition between primary and secondary education. Most provinces remain well above this figure but all are dropping although the NCD has already dropped below it. The plan stated that there would be a need for new secondary schools in the first 10 years of this century as the rate dropped to 50%.

Figure 14: Grade 8 to 9 transition by gender, 1993 to 2000 cohort



The transition rates from grades 10 to 11 have obviously been rising quite dramatically due to the rapid expansion in the number of secondary schools being established and the selection 'criteria' being used in some provinces. The table and chart below illustrate this. The numbers in grade 11 now exceed, by far, the targets as set in the National Education Plan.

Table 21: G10 to Gr 11 transition rates, 1983 to 2001 cohorts by gender

Cohort	Male	Female	Total
1983 to 1984	11.6	8.6	10.6
1984 to 1985	11.1	8.0	10.0
1985 to 1986	10.6	7.2	9.4
1986 to 1987	10.4	6.7	9.0
1987 to 1988	11.8	7.8	10.3
1988 to 1989	11.3	7.9	10.1

1989 to 1990	10.9	7.9	9.8
1990 to 1991	10.9	7.5	9.6
1991 to 1992	11.0	6.6	9.2
1992 to 1993	12.1	7.5	10.3
1993 to 1994	16.5	11.5	14.5
1994 to 1995	18.5	12.5	16.0
1995 to 1996	19.5	13.3	17.0
1996 to 1997	19.5	14.6	17.5
1997 to 1998	22.0	17.2	20.0
1998 to 1999	23.7	18.8	21.7
1999 to 2000	27.4	21.5	24.9
2000 to 2001	32.9	27.1	30.5

The percentage of girls selected for Grade 11 in 2001 was 36%, exactly the same as the previous year. This is still far too low.

Figure 15: Grade 10 to 11 transition by year and gender, 1984 to 2001

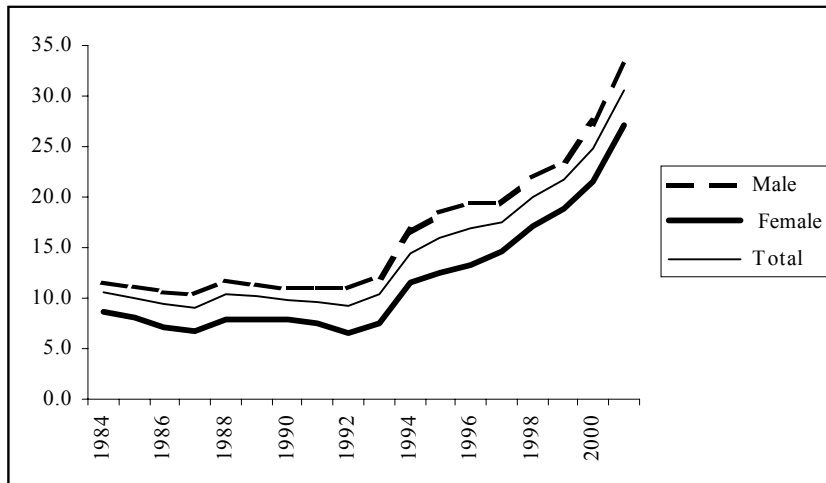
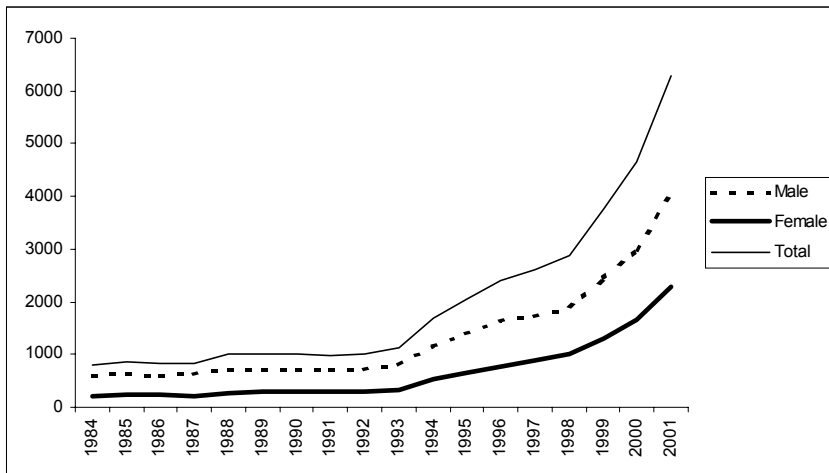


Figure 16: Grade 11 enrolment by gender, 1984 to 2001



TECHNICAL VOCATIONAL EDUCATION TRAINING

A Vocational Education

Access

There was an enormous rise in enrolment reported in 2002. This was primarily due to the very high levels of school fee subsidy. It will be interesting to see whether such high figures are repeated in later years. There has not however been a rise in the percentage of females enrolled. This rise in enrolment has also led to a rise in staff student ratios from a traditional figure of around about 15 to 18.8.

See pages 94
and 95

The two tables show enrolment and staffing statistics for 2002.

Table 22: Vocational Centre enrolment by province and gender, 2002

	Male	Female	Total	%age female
Western	274	50	324	15.4%
Gulf	221	109	330	33.0%
NCD	1654	423	2077	20.4%
Central	429	114	543	21.0%
Milne Bay	224	242	466	51.9%
Oro	537	101	638	15.8%
Southern Highlands	1089	328	1417	23.1%
Eastern Highlands	526	257	783	32.8%
Simbu	916	293	1209	24.2%
Western Highlands	766	171	937	18.2%
Enga	321	265	586	45.2%
Morobe	1227	349	1576	22.1%
Madang	595	130	725	17.9%
Sandaun	484	260	744	34.9%
East Sepik	509	303	812	37.3%
Manus	84	31	115	27.0%
New Ireland	331	111	442	25.1%
East New Britain	352	387	739	52.4%
West New Britain	1553	704	2257	31.2%
Bougainville	122	79	201	39.3%
KLMD	375	105	480	21.9%
Papua New Guinea	12589	4812	17401	27.7%

Table 23: Vocational Centre enrolment by province and gender, 2002

	Male	Female	Total	Ratio
Western	14	3	17	19.1
Gulf	10	-	10	33.0
NCD	60	32	92	22.6
Central	28	8	36	15.1
Milne Bay	26	20	46	10.1

Oro	18	5	23	27.7
Southern Highlands	46	14	60	23.6
Eastern Highlands	30	17	47	16.7
Simbu	58	23	81	14.9
Western Highlands	39	15	54	17.4
Enga	27	20	47	12.5
Morobe	65	25	90	17.5
Madang	26	4	30	24.2
Sandaun	24	13	37	20.1
East Sepik	33	12	45	18.0
Manus	7	4	11	10.5
New Ireland	21	13	34	13.0
East New Britain	17	28	45	16.4
West New Britain	58	27	85	26.6
Bougainville	6	3	9	22.3
KLMD	21	4	25	19.2
Papua New Guinea	634	290	924	18.8

Curriculum

Vocational Centre curricula are still being considered by the Secondary Board of Studies. It is now expected that by 2004 a TVET Board should be established for the Division.

See page 93

There have been developments in some areas with increasing numbers of Grade 10 students entering the centres. These students undertake PETT like courses. An increasing number of centres are now looking at running short courses that are demand driven in that they will be relevant to the community in which the centre is based. It is hoped that employment orientated short courses will encourage female participation and to get away from general Home Economics courses.

Provincial initiatives

Some provinces have taken initiatives in recent years:

- East New Britain have developed a TVET Policy,
- NCD have undertaken a rationalisation process, and
- Morobe and West New Britain have embraced the Technical High School concept and have developed plans in line with this.

It is expected that a TVET policy be in place by 2004 to address many of the issues that are currently being faced by the Division.

B Technical Education

Full time Technical and Business College enrolment for 2002 is shown in the table below. The numbers are disaggregated by those on Technical Training Certificate (TTC) courses and those on the Pre Employment Technical Training (PETT) Courses. The table also distinguishes between those students on National Scholarships and those that are self-sponsored. Self sponsored students now

account for more than 30% of the total full time students at the technical colleges.

Table 24: Technical and Business College enrolments by college, 2002

	TTC	PETT	Total	HECAS	Self Spon	Comp Spon
Goroka Business	137	96	233	146	69	18
Kokopo Business	128		128	91	36	1
Mt Hagen Technical	86	143	229	151	254	2
Madang Technical	25	77	102	83	10	9
Lae Technical	415	15	430	231	161	38
Port Moresby Business	146		146	115	29	2
Port Moresby Technical	79	91	170	132	18	20
Total	1016	422	1438	949	577	90

The percentage of students doing the PETT courses is declining.

779 female students have been enrolled, 111 of whom were on courses that would be generally regarded as being male orientated. The absolute number of women enrolled on such courses has been increasing although there is still a long way to go.

There have been slight changes made to the colleges hosting particular trade areas. Vehicle trades are now offered at Goroka Tech as well as Hagen. This is because of the problems that have been encountered in recent years in Hagen.

Curriculum

Painting and Decorating, Furniture and Timber, and Plumbing and Sheet Metal PETT courses have now been phased out and have become Technical Training Certificate courses. These will commence in 2003 and all will be offered at the Madang Technical College. There are still two courses – butchery and panel beating / spray painting that are still PETT courses. It is unclear as to when these courses will be upgraded to TTC level.

SPECIAL EDUCATION

Children with special learning needs had largely been ignored by the National Education System until the 1990s. Children with special needs are those with hearing, vision, physical, intellectual (mild), and emotional, behavioral and learning disabilities. There was very little provision, aside from a few initiatives taken by the mission agencies, for these children to be included in the regular school system.

See pages 105
and 106

The National Special Education Plan, Policy and Guidelines was approved by the National Executive Council in 1993. The Special Education Unit was established following initial approval of the Plan and was accommodated within the Teacher Education & Staff Development Division. The Unit is currently staffed by two officers; the Superintendent and an Inspector. Curriculum Officer position is vacant. In addition to these, there have been 47 Teaching Service positions created and these are allocated to the thirteen Special Education Resource Centres established around the country. Two new Callan Centres were established in 2002 – one at Aitape and the other at Maprik..

It is estimated that there are now more than 1000 children based in the centres and over 2000 who have been integrated into the school system. The community based rehabilitation program caters for about 1500. In total, then, there are about 4500 children who have benefited from special education programs.

MANAGEMENT

The concerns that have been expressed in previous versions of the State of Education still stand. The turnover of provincial education managers and the process by which they are appointed still leaves a lot to be desired. There has been very little progress made on the update of provincial education plans. This is largely down to a lack of capacity at the provincial level. It is to be hoped that the Education Capacity Building Program (ECBP) that is due to start late in 2003 will help to remedy this situation.

See pages 108 to 110.

Although the ECBP is expected to play a critical role in the improvement in the quality of education services delivery there are institutional capacity building components of other, stand alone, projects. The CRIP has been providing training to CDD staff and some from other divisions. The areas covered include general managerial topics such as Time Management, the Management of Projects and Decision Making. In addition to this contribution, CRIP have also begun the process of refurbishing the CDD and IGD buildings at the PNGEI.

The first National Education Plan was from 1995 to 2004. Preparation for the next Plan, which will be from 2005 to 2014, will commence during 2003 with a view to completing it by the end of 2004. The process for this will involve a large amount of consultation with all stakeholders and will be against a backdrop of declining Government resources. An AusAID funded Affordability Study will be undertaken in the early months of 2003 and it is expected that this will provide valuable inputs for the National Education Plan.

Aside from the economic concerns the greatest problem faced is that of data collection. In 2002 enrolment details were collected for school fee subsidy purposes as well as for the annual Enrolment and Staffing Bulletin. There were large discrepancies between the two. At the end of 2002 it was still not possible to print and distribute the 2001 bulletin. There were many schools missing, with no indication as to whether they were closed, suspended or whatever. These were not just the elementary schools but also included were some secondary schools. It is maybe worth noting that in 2002 there were 20% of schools in the National Capital District that did not submit returns. It is unfortunate that those involved with school fee subsidy data collection did not take advice and collect their data in such a form that it could be used for official purposes.

FINANCING OF EDUCATION IN PAPUA NEW GUINEA

This section aims to update the chapter on 'Financing of Education in Papua New Guinea' from the source document. The tables provided are largely the same but with the appropriations from the 2003 budget along with actual expenditure figures for 2001.

It is very difficult to effectively analyse the education budget over a period of time because the formulation of the budget changes from year to year. For example, the education subsidies being placed within the education recurrent budget in 2002 gave the appearance of a very large rise in appropriation. This may not be the case. On the development budget side, there are often donor contributions that are ex budget (outside the budget).

In addition to the recurrent and development budgets, this section will also consider issues concerned with the two other major areas of expenditure – teacher salaries and the school fee subsidy program.

Recurrent Budget

The largest part of the recurrent budget is of course teacher salaries. This is dealt with in a separate section.

The recurrent budget for the Department comprises a number of Main Programs and Programs. Each of the Programs has a number of activities within it. These have remained relatively constant over the period that is being considered.

See pages 119 and 120 for the structure of the budget.

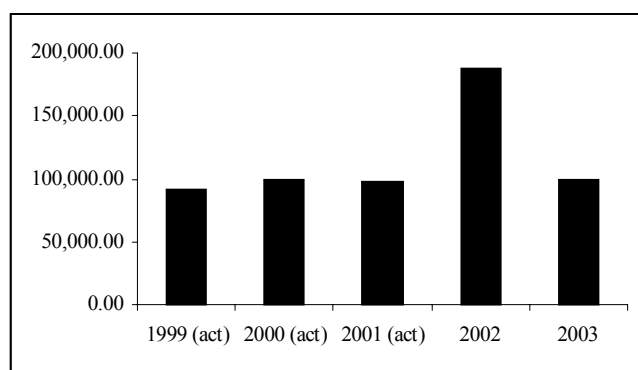
Many of the activities included in the budget are not directly related to the administration of the National Education System. Notwithstanding, the table below shows budget allocations by program for the years 1999 through to 2003. The accompanying chart shows total allocations. The 'act' in brackets following certain years signifies that the figure is an actual figure expended.

Table 25: Budget allocations by Program – 1999 to 2003 (K'000)

Program	1999 (act)	2000 (act)	2001 (act)	2002	2003
Policy Formulation and General Administration	47,535.50	50,434.00	49313.3	142688.1	50702.4
Dev and Implementation of Education Standards	7,156.80	8,455.30	6929.2	6907.7	7827.1
Primary education	11,040.70	11,523.30	13349.6	11192.6	13220.9
Literacy and Awareness	189.80	193.10	267.2	208.5	205.5
General Secondary	9,125.00	10,642.20	10204.7	8907.7	8510.1
Vocational	1,463.50	1,698.30	2132.7	2144.1	2187.5
Technical	8,797.70	9,186.40	8997.0	8911.1	7514.1
Teacher Educ	5,595.60	5,662.60	5891.8	6052	8029.5
Library Operation	513.20	537.40	661.4	675.1	707.1
Govt Archives	255.40	419.80	351.8	347.6	381.5

Total	91,673.20	98,752.40	98,098.70	188,034.5	99,285.7
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Figure 17: Department of Education recurrent budget – 1999 to 2003 (K000s)



The chart would suggest that there has been little change in the recurrent budget in recent years, aside from 2002. The huge rise in 2002 was due to the exceptional appropriation for education subsidies. This issue of education subsidies is discussed separately.

As noted earlier, there are items included within the recurrent budget appropriation that are not strictly to do with the administration of the National Education System. These budget items might include, other than the education subsidies:

- NCD teacher salaries
- Office of Higher Education
- Technical Education
- Library operations
- Literacy and Awareness
- Government Archives

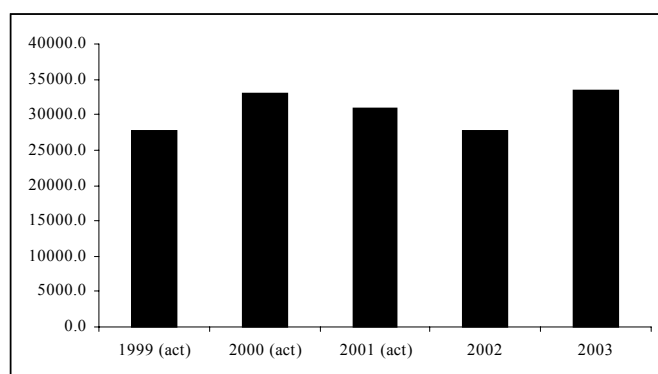
The next table and chart have taken these categories out of the recurrent budget to give a fairer indication of the money available to the Department for the administration of the General Education System.

Table 26: Budget allocations for education administration by Program – 1999 to 2003 (K'000)

Program	1999 (act)	2000 (act)	2001 (act)	2002	2003
Policy Formulation and General Administration	7536.3	10438.9	9860.1	7688.1	10702.4
Dev and Implementation of Education Standards	7156.8	8455.3	6929.2	6907.7	7827.1
Primary education	246.6	262.3	292.9	245.5	241.3
Literacy and Awareness	189.8	193.1	267.2	208.5	205.5
General Secondary	6335.3	7276.3	6540.8	5544.2	5246.3
Vocational	575.1	760.3	1137.0	1128.9	1124.0
Technical					
Teacher Educ	5595.6	5662.6	5891.8	6052.0	8029.5
Library Operation					

Govt Archives					
Total	27635.5	33048.8	30919.0	27774.9	33376.1

Figure 18: Department of Education 'administration' budget – 1999 to 2003



The rise in the budget in 2003 is largely due to a large increase in teacher education, as a result of the completion of the Elementary Teacher Education Support Project, in Planning and Budgeting and General Administration. Looked at on a per capita basis the administrative cost to Government is still only about K30 for every child in the education system. This is extremely low when it is borne in mind that it includes all activities of Inspections, Teacher Training and Curriculum Development. Although it does not include expenditure at the provincial and local levels it is clearly insufficient for the Department to efficiently carry out all of its core activities.

Development budget

The development budget is that part of the budget that is set aside for 'projects', both new and continuing. There is great competition for development funding.

The table below shows the Development Budget by program from 1999 to 2003. The figures for 1999 through to 2001 are actual figures. This is significant because there is frequently slippage in the implementation of projects. This can mean that the appropriation for a project in a given year may bear no resemblance at all to what is actually spent.

Table 27: Development budget by Program – 1999 to 2003

	1999 (act)	2000 (act)	2001 (act)	2002	2003
Policy Formulation and General Administration	1,748.3	1,771.5	1,572.4	6118.6	10111.4
Dev and Implementation of Education Standards	9,275.9	19,216.8	73,684.8	23939.8	27282.4
Primary education	16,451.6	45,320.1	28,480.6	18737.3	21883.1
Literacy and Awareness		87.0	187.8		
General Secondary	37,076.5	19,987.8	8,662.3	500.0	1927.2
Vocational	74.6	101.1	2.0	52000	16472.3
Technical	860.2				1774.9
Teacher Educ	11,138.2	7,542.0	45,024.4	26243.6	23853.6
Library Operation	321.5	278.9	596.8		

Govt Archives					
Total	76,946.8	94,305.2	158,211.1	127,539.3	103,304.9

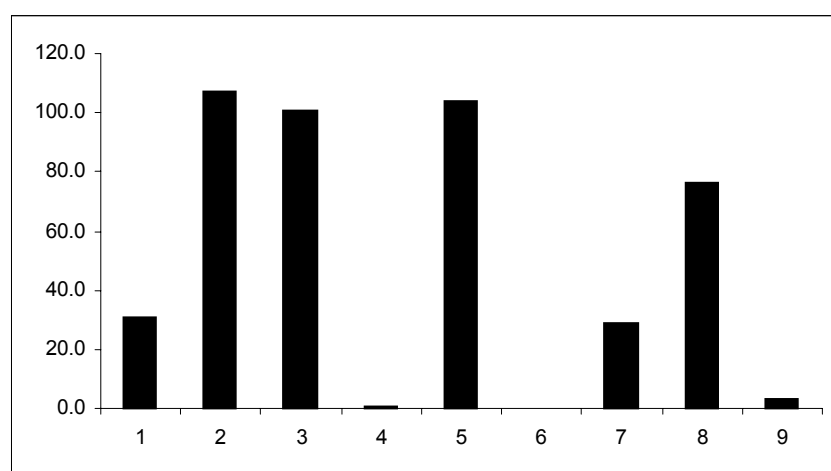
The table below gives brief descriptions of the projects that are included within each of the programs. The programs within the development budget are the same as those in the recurrent.

Table 28: Description of projects by program, 2003

Program	Comments on projects
Policy Formulation and General Administration	This Program includes the Capacity Building programs, the QIPE and a study to be carried out into the future development of the education sector.
Development and Implementation of Education Standards	The main project in this sector is the Curriculum Reform Implementation Program. Also included are Population Education, the PNG / NZ School Journal and funding for the media centre..
Primary Education	This is the Commodity Assistance Support Project (CASP) and the pre implementation phase of the Basic Education Development Project (the follow up to BEICMP).
General Secondary Education	The projects in this program support secondary education in Bougainville and the Passam National High School.
Vocational Education	This program includes the very large European Union funded Human Resource Development 2 program.
Technical Education	Although included in budget documents as part of technical education the great bulk of the funding here is for in country scholarships funded by the New Zealand Overseas Development Authority.
Teacher Education	There are two projects in this Program – one for elementary teacher training and the other for primary and secondary teachers.

Some of these programs have only been allocated very small amounts of development funding. The actual development budget expenditure by sector from 1997 to 2001 is shown in the chart below. As can be seen the development and implementation of standards, primary and secondary education and teacher education are the sectors that attract the bulk of the development budget. This is in line with the major Government priority of providing a quality basic education for all Papua New Guineans. Much of the expenditure in the teacher education and the development and implementation of education standards programs is targeted at elementary and primary education. The amount of money spent on secondary education may surprise some but these figures include the secondary school scholarship project and a number of schools being provided with infrastructure. These have both proven to be very high cost activities.

Figure 19: Development Budget by sector – 1997 to 2001 (K millions)



Key

1	Policy Formulation and General Administration	6	Vocational
2	Dev and Implementation of Education Standards	7	Technical
3	Primary education	8	Teacher Education
4	Literacy and Awareness	9	Library Operation
5	General Secondary		

The table below shows the same information for 2003. The major difference that is apparent is the large increase in appropriation for vocational (due to the European Union HRDP II) and the drop in the General Secondary Program.

Table 29: Percentage of development budget funded by donors by program, 2003

Policy Formulation and General Administration	9.8%
Dev and Implementation of Education Standards	26.4%
Primary education	21.2%
Literacy and Awareness	0.0%
General Secondary	1.9%
Vocational	15.9%
Technical	1.7%
Teacher Educ	23.1%

The relative contribution of the various donor agencies in the 2003 development budget is shown in the table below.

Table 30: Share of Development Budget by donor, 2003

AusAID	72.9%
European Union	17.6%
JICA	5.0%
New Zealand	4.2%
UNFPA	0.4%

The percentage of the development budget that is donor funded continues to rise - from 90% to about 97% over the last three years. The contribution made by the Government of PNG (GOPNG) is known as counterpart funding. The table below shows the current projects and the amount of funding allocated in 2003, both from the donor and from the GOPNG.

Table 31: Projects for 2003 by donor agency and funding

Project	Donor Agency	Donor funding (K'000s)	C'part funding (K'000s)	Total funding (K'000s)	%age donor funding
Capacity building	AusAID	3580.0	403.4	3983.4	90%
Media Centre	JICA	5000.0		5000.0	100%
Population Education	UNFPA	360.4		360.4	100%
CRIP	AusAID	19093.1	709.9	19803.0	96%
QIPE	AusAID	3580.0		3580.0	100%
Ed Sector Development	AusAID	1193.4		1193.4	100%
Personnel Payroll	AusAID	1193.3	161.3	1354.6	88%
PNG/NZ School Journal	NZODA	519.0		519.0	100%
Feasibility study in HRD	EU	1600.0		1600.0	100%
Elem Tr training - phase 2	AusAID	2386.6	242.0	2628.6	91%
CASP	AusAID	11933.2		11933.2	100%
Bougainville SS/CODE	NZODA	1427.2		1427.2	100%
Passam NHS	GOPNG		500.0	500.0	0%
Vocational Education	EU	16000.0		16000.0	100%
Voc Training Support	NZODA	472.3		472.3	100%
Technical strengthening	NZODA	311.4		311.4	100%
NZ In Country training	NZODA	1432.4		1432.4	100%
Bougainville Scholarship	NZODA	31.1		31.1	100%
PASTEP	AusAID	18047.7	790.6	18838.3	96%
Basic Education Dev	AusAID	9546.5	403.4	9949.9	96%
Elementary Tr training	AusAID	2386.6		2386.6	100%
		100094.2	3210.6	103304.8	97%

Teacher salaries

As noted earlier by far the greatest cost in education is the cost of teacher salaries. The allocation for teacher salaries in the provincial budgets for 2003 is shown in the table below.

Table 32: Provincial allocation for teacher salaries, 2003

Western	15,906.0
Gulf	6,312.3
Central	17,517.1
NCD	
Milne Bay	16,148.5
Oro	7,780.8
Southern Highlands	21,438.4
Enga	14,527.9

Western Highlands	21,496.0
Simbu	19,150.4
Eastern Highlands	23,261.5
Morobe	31,713.4
Madang	20,962.0
East Sepik	19,778.2
Sandaun	11,608.2
Manus	5,577.0
New Ireland	10,657.5
East New Britain	20,010.3
West New Britain	15,723.0
North Solomons	15,894.6
	315,463.1

When the salaries for teachers and lecturers in the National Capital District, the National High Schools, the Technical Colleges and the Teachers' Colleges are added to this the total for salaries amounts to K343,408,900. The following table shows initial figures, taken from the Department of Education rather than the Department of Treasury, for the expenditure by province on salaries in 2002.

Table 33: Expenditure on teacher salaries by sector and province, 2002 (K'000s)

	Elem	Prim	Sec	Voc	Total
Western	1,633.9	6,530.6	1,244.9	360.1	9,769.5
Gulf	1,489.0	3,516.0	1,105.8	121.3	6,232.1
Central	3,390.2	10,972.9	2,570.5	428.6	17,362.0
Milne bay	2,750.2	10,024.3	1,950.5	485.8	15,210.9
Oro	1,044.8	5,094.9	1,067.5	281.1	7,488.3
S. Highlands	1,690.0	14,322.5	4,000.6	715.0	20,728.1
E. Highlands	2,655.4	15,800.7	3,847.3	622.6	22,925.9
Simbu	2,577.4	12,889.6	3,225.4	980.0	19,672.4
W. Highlands	1,652.1	15,656.8	3,982.0	699.5	21,990.3
Sandaun	997.3	8,068.1	1,639.1	636.5	11,341.0
East Sepik	2,467.7	14,770.2	2,768.8	785.8	20,792.4
Madang	1,907.4	15,435.8	3,360.5	461.0	21,164.6
Morobe	1,404.3	23,912.4	4,556.1	1,283.6	31,156.4
WNB	1,160.9	11,384.1	1,951.7	1,215.4	15,712.0
ENB	1,505.0	13,778.4	3,212.6	1,263.6	19,759.7
New Ireland	1,337.0	7,420.0	1,633.0	424.4	10,814.4
NSP	2,701.4	10,904.4	2,155.5	205.2	15,966.5
Manus	394.2	3,754.5	1,214.1	128.8	5,491.6
NCD	2,670.0	11,342.8	3,725.5	1,060.6	18,798.9
Enga	1,533.2	8,856.7	3,089.0	759.1	14,238.1
KLMD	1,637.6	3,152.7	793.7	391.1	5,975.1
	38,598.9	227,588.2	53,094.1	13,309.1	332,590.2

It has long been a contention that expenditure on teacher salaries greatly exceeds the appropriation. The most recent year for which actual figures are available is 2001 and analysis would suggest that they were actually under spent

by a small amount. This is something that does need to be looked at in more detail in future.

School Fee Subsidies

The very large amount of money budgeted for the subsidy in 2002 was widely seen as being a politically motivated appropriation in view of the upcoming national elections. Whilst it was entirely laudable that Government should wish to lessen the burden on parents and in this regard, political motives set aside, it was encouraging that such an initiative was taken. However, Government needs

See pages 125 to
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to ensure that any such expenditure, especially as large as that of 2002, advances the country in its objective of achieving Universal Basic Education and that it is not just a one off bonus for parents. It is by no means clear that this large appropriation did. It is worthwhile looking at the issues raised with regard to the policy of 2002. This will be further considered in a 2002 Subsidy Impact study that is due to be undertaken in 2003.

Basic education

If parents are not required to make a contribution for school fees at any level of the system there will be a number of implications. The following points can be made about basic education.

- An all round rise in enrolments can be expected, particularly at the entry points. This is based upon the experience of 1993. Whilst many might consider this a rather mean spirited view to take especially as the objective of Government is surely to educate all children there are genuine reasons for this to be a concern. It makes planning for education even more difficult than it is at present and means that there will be a 'bulge' in enrolments that will work its way through the system over the next 10 years.
- There is likely to be another major pressure point at grade 7 in the primary sector. All provinces have got an implementation schedule for the expansion of access to grades 7 and 8 in the primary schools. These schedules are followed with a varying degree of consistency and plan for the opening of a small number of schools each year to take on the upper primary classes. If grade 7 and 8 education were to be free of parental cash contributions, or even if they were to be very highly subsidised, there is a danger of pressure being exerted to open more schools than have been planned for. This would have serious staffing, teacher training and materials implications.
- The opening of elementary schools is planned in a similar fashion. If there were suddenly a huge extra demand for new elementary schools, which is something that might be expected if education is seen to be 'free', there will again be teacher training, teacher supervision and materials implications. Such a rise in enrolment would also put great pressure on the system in 2005 when these children move into grade 3 in the primary schools.
- Anecdotal evidence from 1993 suggests that many parents will not continue to provide support in kind if they are not required to pay any fee. Traditionally, parents in many parts of the country produce cash crops such as copra and coffee in order to pay school fees. Some reports suggest that this does not happen if education is 'free'. If this were the case there may be an adverse effect on the economy as a whole.

The points to be made regarding post primary education are rather more philosophical in nature and should be considered bearing in mind that Universal Primary Education is the ultimate goal of Government.

Post primary education

Whilst most would agree that it is a good thing that education be 'free' at least up to Gr 2, or maybe Gr 6, there are strong arguments for not extending this beyond these grades. Any child that enrolls in Prep, or in grade 1 for that matter, is guaranteed a place through to grade 6. An education beyond grade 6, on the other hand, is only available to a much smaller number and this number decreases following examinations on completion of grades 8 and 10. This is despite the great advances made in access since the introduction of the education reforms in 1993. The situation is not as bad as it was ten years or so ago but still only about 5% of the age cohort complete a full secondary education. Less than half have the opportunity for an education beyond grade 6. This is because of a lack of space in the schools, a lack of properly prepared teachers and a lack of materials. The National Education Plan aims to improve access through measured expansion over a number of years and takes into account materials and human resources required to achieve objectives.

It is for these reasons it is hard for Government to justify paying the full fee for all students beyond grade 6. Having said this, it is important that any talented child is not denied the opportunity to be able to fulfil their potential due to their parents being unable to pay school fees. There needs to be a much more effective scholarship scheme initiated to ensure that these children are the ones that apply for and then receive the scholarships that are made available. The Department has traditionally found this very difficult to do. An alternative might be to consider blanket grants to children from identified 'disadvantaged' districts who are in grades 9 to 12. The concept of rural parents paying a smaller fee than urban parents has been spoken about but never fully explored.

A related issue is whether 'free' education should extend to Government paying for the boarding fees of post primary students? Maybe Government should only pay for or subsidise the tuition fees and leave boarding fees as the responsibility of the parents. Experience, again, from 1993 shows that an enormous increase in the demand for limited boarding places can be expected if boarding is free. This will result in extra costs, as well as the health and safety risks associated with over crowded dormitories. Many might ask why Government should pay for the lucky few students to be fed and housed at schools whilst the majority do not have the opportunity to even get a place. The argument is similar to that of upper primary and maybe the money should be used to build further schools and train more teachers in order that the number of children enrolled can be increased. Against this is the argument that most of the boarders are from the rural areas whose parents are less likely to be able to afford the fees. The need for an efficient scholarships fund is again apparent.

Despite these reservations there have been positive outcomes. There has been a huge increase in enrolments although some doubts have been expressed as to how many of these have been purposely inflated. The vocational centre enrolment figures are particularly difficult to reconcile. There has been anecdotal evidence that a lot of children had re enrolled at school having dropped out in previous years due to 'school fee problems'.

In addition to all of the above there were also a number of administrative problems faced by the Department in carrying out this policy direction. It would, however, be fair to say, given the lead time available, that the Department did a far better than satisfactory job in carrying out the policy.

2003 school fee subsidy allocations

The question of sustainability in the school fee subsidy policy was reinforced when the plans for 2003 were announced. The 2002 total figure of K150m has been reduced to K60m. As in 2001, K40m has been included in the Department of Education budget with the remaining K20m in the 20 provincial budgets. The K20m included in the provincial budgets is allocated, supposedly, on the basis of enrolment in each of the provinces. This is discussed a little later.

The lack of funds available for school infrastructure and maintenance has long been recognised as a concern for provincial and local authorities. Funding has just not become available through the Local-level Governments as was intended and so it has been decided that that the school fee subsidy funds in 2003 should address this area. The allocation to each school is called the School Infrastructure and Maintenance Grant (SIMG). The K40m in the Department of Education budget will be allocated based upon the enrolment of the institutions. These per child allocations are shown below:

Table 34: Allocations per child by sector for 2003 school fee subsidy

Sector	Amount
Prep to grade 2	K5
Grade 3 to grade 6	K15
Grade 7 and 8 – primary	K40
Grade 7 to 10 – Secondary (day)	K50
Grade 7 to 10 – Secondary (boarding)	K75
Grade 11 and 12 (day)	K100
Grade 11 and 12 (boarding)	K120
Vocational (day)	K50
Vocational (boarding)	K75
College of Distance Education	K20

The administration of the 2003 policy has been explained in a Secretary's Circular and Ministerial Policy Statement and a public notice has been placed in the print media. As in previous years allocations for the Department will be made in quarters 1 and 3.

These constant changes, given political and economic realities, are understandable but school authorities, as well as parents, in Papua New Guinea would greatly appreciate a degree of certainty from year to year. There is a feeling in some quarters that, following a year in which the parental contribution was negligible, that the level of school fee being asked for in 2003 is such that many may not be able to continue with their schooling.

Possibly even more confusing for both parents and school administrators than the constant changes in the amounts of money appropriated is the criteria for its

expenditure. In 2002 and in previous years schools were advised that subsidy money had to be spent on school supplies and teaching materials. The parents were to be responsible for all aspects of school infrastructure. This has been turned around in 2003 with the subsidy money **only** to be spent on infrastructure and maintenance!

The provincial components of the subsidy for 2003 are shown in the table below. It is immediately apparent that some provinces, such as Milne Bay and New Ireland, have fared particularly well whilst others, such as the Southern and Western Highlands, have not done so well. The National Capital District is catered for elsewhere in the budget but it is not clear what will happen with the North Solomons Province in 2003.

It is important that in future years the figures allocated for the provincial component of the education subsidies are consistent with the enrolments in the provinces. For 2003, as in the past, figures have been allocated without any reference to the Department of Education.

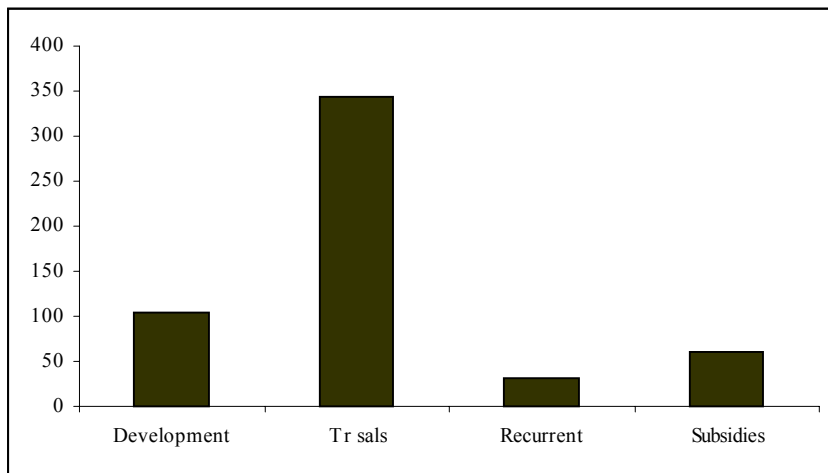
Table 35: Provincial education subsidy allocations, 2003 (K'000s)

Western	607.2
Gulf	422.9
Central	787.6
NCD	
Milne Bay	1,181.1
Oro	539.1
Southern Highlands	150.0
Enga	1,007.3
Western Highlands	660.4
Simbu	1,851.2
Eastern Highlands	3,044.2
Morobe	1,731.8
Madang	1,417.6
East Sepik	870.5
Sandaun	675.9
Manus	306.1
New Ireland	1,238.6
East New Britain	1,814.2
West New Britain	1,694.3
North Solomons	
	20,000.0

Summary of major education expenditure items

The chart below shows the relative costs of the major parts of the education budget. It does not include the expenditure by the provincial and the local-level governments. It serves to illustrate the significance of the amount of money spent on teacher salaries.

Figure 20: Major components of the 2003 education budget (K mills)



It is worth reemphasising the importance of looking at the possibilities of rationalising the teaching force in order to save as much money s possible or, if not actually saving money, then of using the same number of teachers to teach more children. If the teacher salary bill could be reduced by just 1% or 2%, through either removing ‘ghost’ teachers from the payroll or cutting unnecessary positions from schools, then there would be enough money saved to allow Inspectors to visit all schools in the country.

See pages 114 to 116 for information on teacher deployment

The Department is also looking at other ways in which to save money. Examples of initiatives that have been taken in 2002 are:

- The selling of Education calendars beyond an initial free supply to each school,
- The selling of the PNG Journal of Education,
- The increase in in-service fees from 1% to 2% of salary,
- The requirement for participants on overseas workshops to make a contribution towards the costs, and
- As noted earlier the charging of course fee for new elementary school teachers.

Quality Initiatives in Papua New Guinea Education (QIPE)

This program continued in 2002 using the same criteria for expenditure . A committee was established and was chaired by the Deputy Secretary, Finance and Administration. The role of this committee was to consider the applications made for funding by Divisions of the Department.

See pages 132 and 133

The table below shows the amounts of money approved by the Divisions within the Department through the QIPE in the years 2001 and 2002. It is important to bear in mind that this shows the year of approval. Actual expenditure is often not in the same year.

Table 36: QIPE approved expenditure by sector, 2001 and 2002 (K'000s)

Division	2001	2002
Teacher Education and Staff Development	1329.7	627.7
Planning, Facilitating and Monitoring	159.6	37.8
General Administration and Personnel	173.7	39.1
Technical and Vocational Education Training	195.1	71.9
Finance and Budgets	248.9	
Audit Branch	5.1	
General Education Services	397.8	
Inspections and Guidance	629.5	942.4
NCD Education	162.2	14.4
Policy, Research and Communications	462.9	
TSC	2.3	
National Literacy and Awareness Services	14.4	
Curriculum Development Division		686.1
Central Province education services	13.3	
Total	3,794.5	2,419.5

In addition to this there was money set aside, some K200,000, for the use of the Measurement Services Unit and the Facilitating and Monitoring Unit. This was part of the extension of the Institutional Strengthening Project.

A further K3.58m has been made available to the Department in 2003. These funds will be administered and then spent in a similar fashion to the two previous years