AN OVERVIEW

OF

EDUCATION DEVELOPMENT

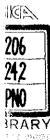
IN

PAPUA NEW GUINEA

March 2001

PAPUA NEW GUINEA OFFICE JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)





MARCH 2001

AN OVERVIEW OF EDUCATION DEVELOPMENT IN PAPUA NEW GUINEA

P N O J R 01-01

TABLE OF CONTENTS

LIST LIST	OF FI	RD BBREVIATIONS IGURES /E SUMMARY	ii iii v vi
Α.		OVERVIEW OF EDUCATION DEVELOPMENT IN PUA NEW GUINEA	1
	1.	GOVERNMENT POLICY AND PLAN	1
		1.1 Ministry of Education	1
		1.2 Lower and Further Education Development	3
		1.3 Higher Education Development	8
	-	1.4 Structure of Education System	16
	2.	LEGAL FRAMEWORK	16
	•	2.1 Acts of Parliament	16
		2.2 Organic Law	16
	0	2.3 Policy Formulation	17
	З.	SERVICE DELIVERY SYSTEM 3.1 National Government	17
		3.1 National Government3.2 Provincial and Local Level Governments	17
		3.3 Lower Education	23
		3.4 Further Education	23 31
		3.5 Higher Education	34
	•	3.6 Distance and Informal Education	36
	4.	GOVERNMENT BUDGET AND EXPENDITURE	40
		4.1 Recurrent Budget	40
		4.2 Development Budget	42
	5.	DONOR INPUT AND EXPERIENCES	43
		5.1 Donor Input	43
		5.2 Education Project Priorities	44
		5.3 Opportunities, Constraints and Risk Management Fac	tors 45
		5.4 AusAID Perspective	46
В.	FOF	REIGN ASSISTED EDUCATION PROJECTS	.49
	1.	INVENTORY OF ONGOING, MAJOR PAST AND	
		FUTURE PROJECTS	49
	2.	FOREIGN AID ASSISTED EDUCATION PROJECT	
		SUMMARIES	53
C.	BIBI	LIOGRAPHY RELATED TO EDUCATION DEVELOPMENT	97
~			
D.	ANN	EXES	101

FOREWORD

The Country Program of Japan International Cooperation Agency (JICA) in PNG emphasizes assistance in the Education sector in the areas of Educational Materials and Human Resource Development. Their main objective is to improve the overall Education for the people of Papua New Guinea by providing both support and technical cooperation.

Education service delivery is one of the most vital issues and prioritized areas in any society and Papua New Guinea is no exception. The Government of PNG and various donor agencies are required to work together in harmony for an effective delivery of goods and services in order to improve the standard of Education based on the National Education Plan (1995-2004) and the Medium Term Development Strategy of the Government of Papua New Guinea (1997-2002).

JICA and other major donors have recognized the significant improvements made to the education sector through the various assisted projects and programs. However, a better coordination among the donors is desired to provide effective and stable support to the Education sector in the short and long term basis.

Having fully appreciated the exchange of views and ideas with the Government of Papua New Guinea, other donor agencies and the non-government service providers, JICA PNG Office hereby compiles this "Overview of Education Development in Papua New Guinea" as a part of our contribution to donor coordination by reviewing of education projects and programs in Papua New Guinea. I hope this overview document will be of great assistance to promote much collaboration activities of all personnel concerned in the education sector services in Papua New Guinea.



March, 2001

Mr IWASAKI Kaoru Resident Representative JICA PNG Office

LIST OF ABBREVIATIONS

ADB ADS	Asian Development Bank Australian Development Scholarships
AusAlD	Australian Agency for International Development
BEICMP	Basic Education Infrastructure, Curriculum and Materials
	Project
BOM	Board of Management
BOS	Board of Studies
CASP	Commodities Assistance Support Program
CDD	Curriculum Development Division
CEEP	Community Equity in Education Project
CHE	Commission for Higher Education
CODE	College of Distance Education
CRIP	Curriculum Reform Implementation Project
DAL	Department of Agriculture and Livestock
DLE	Department of Labour and Employment
DNPM	Department of National Planning and Monitoring
DOE	Department of Education
DPM	Department of Personnel Management
EHP	Eastern Highlands Province
EMIS	Education Management Information System
ERSP	Education Reform Support Project
ETESP	Elementary Teacher Education Support Project
EU	European Union
FMU	Facilitating and Monitoring Unit
GAPD	General Administration and Policy Division
GDP	Gross Domestic Product
GNP	Gross National Product
GoA	Government of Australia
GoPNG	Government of Papua New Guinea
HAC	Highlands Agricultural College
HE	Higher Education
HEI	Higher Education Institutions
HEIMS	Higher Education Information Management System
HERST	Higher Education, Research, Science and Technology
HRD&OD	Human Resource Development and Organisational
	Development
IGD	Implementation and Guidance Division
IMG	Implementation and Monitoring Group
ISP	Institutional Strengthening to Department of Education Project
JICA	Japan International Cooperation Agency
LAMP	Literacy Awareness and Materials Production
LLG	Local Level Government
MRG	Monitoring and Review Group
MSU	Measurement and Standard Unit
	Medium Term Development Strategies
NATTB NCD	National Apprenticeship and Trading Testing Board
NEB	National Capital District National Education Board
NEC	National Executive Council
NEP	National Education Plan
	National Euloalion Fian

NES	National Education System
NEO	National Forestry Authority
NGO	Non-Government Organization
NHEP	National Higher Education Plan
NHES	National Higher Education System
NLAC	National Literacy and Awareness Council
NLAS	National Literacy and Awareness Secretariat
NMA	National Monitoring Authority
NTTCSP	National Trade Testing and Certification Support Project
NZODA	New Zealand Overseas Development Agency
OHE	Office of Higher Education
OLPLLG	Organic Law on Provincial and Local Level Government
PASTEP	Primary and Secondary Teacher Education Project
	PNG-Australia Targeted Training Project
PATTAP PETT	Pre Employment Technical Training
PEA	Provincial Education Administration
PEB	Provincial Education Board
PEC	Provincial Executive Council
PED	Provincial Education Division
PEO	Provincial Education Office
PNG	Papua New Guinea
PNGE	Papua New Guinea Education Institute
PFM	Planning, Facilitating and Monitoring
PRC	Policy, Research and Communication
PTCs	Primary Teachers' Colleges
RMPA	Regional Management and Planning Advisor
SAS	School Administration Services
SSSP	Secondary School Students Project
TA	Technical Assistance
TAG	Technical Assistance Group
TE	Teacher Education
TE&SDD	Teacher Education and Staff Development Division
TESAS	Tertiary Education Study Assistance Scheme
TMT	Top Management Team
TNA	Training Needs Analysis
TSC	Teaching Service Commission
TVET	Technical Vocational Education and Training
UBE	Universal Basic Education
UNFPA	United Nations Fund for Population Activities
UOG	University of Goroka
UOT	Papua New Guinea University of Technology
UOV	University of Vudal
UPHS	Upgrading Provincial High Schools Project
UPNG	University of Papua New Guinea
VC	Vocational Centre
všs	Vocational Secondary School
VTET	Vocational and Technical Education and Training
VUC	Vudal University College
WB	World Bank
WNBP	West New Britain Province

LSIT OF FIGURES

Figure 1. Structure of the Education System	99
Figure 2. Organisational Chart of Ministry of Education	100

•

V

EXECUTIVE SUMMARY

Papua New Guinea occupies the eastern half of the New Guinea Island with hundreds of outer lying islands and villages consisting of a few small hamlets to hundreds of houses. It has a population of about 4 million people and approximately 80% of them live in rural areas while 20% live in urban centres. It has an annual population growth rate of 2.3% which is higher than the medium human development countries.

The Education Sector is made up of the National Education System (NES) and the National Higher Education System (NHES). The NES consists of lower education (elementary, primary, secondary and national high schools) and further education (technical/business and teachers colleges). The Provincial Governments are responsible for elementary to secondary schools while the Department of Education is responsible for national high schools, technical/business colleges and teachers colleges. The NHES is mainly concerned with higher or university education and the CHE/OHE provide co-ordination at the national level.

The NES provides a model for policy development and a dynamic process of stakeholder participation through collaborative decision making, cost sharing and resource management.

The administration of the NES is vested in the following education authorities: the Minister, the National Education Board, the Secretary of Education, the Teaching Service Commission, the provincial governments, the local level governments, the education agencies, and the governing bodies of member schools.

The Organic Law strictly limits the Department of Education (DOE) functions to determining national policy and standards, and coordinating their implementation through providing support and advisory services to the provinces in areas such as planning, research, training and staff development.

The delivery of education services in the provinces and districts, and the operation and development of schools (except for national institutions and schools in the National Capital District) are the responsibilities of provincial and local-level governments and their provincial and district administrations.

The mission of the NES in the new century as defined through the DOE Corporate Plan 1998 - 2002 is to mass produce *literate, educated* and *skilled citizens* who are prepared for change and development.

The National Education Plan 1995 - 2004 (NEP) leans heavily on the recommendations from the Education Sector Review and the Resources Study. The Plan is in two parts. Part A describes the problems and outlines what should be done while Part B analyses the past and the reasons for the education reform program.

The aims of the NEP are to provide an education system that will adequately prepare school leavers: to return to their communities for community-based employment; who will find paid employment in the formal sector; who are academically talented by international standards to enter the academic profession; and from the urban centres for the realities of life in an urban situation.

The NEP and the Education Reform are a result of extensive consultation, detailed studies and planning by many people and are supported by Government and donors. Restructuring of the education system and the reform of the curriculum have been in progress since the modest pilot initiatives in 1993. Based on this experience introduction of the new education system has spread rapidly across all provinces. However, there exist widespread provincial variations and implementation gaps that remain to be addressed.

There is continuing agreement also that the overall philosophy policies and structure which underpin the new system are sound. As a result there is rapid progress being made in implementing the reforms demonstrated through the drafting and completion of all the provincial education plans. The plans provide achievable targets, management strategies, cost estimates and schedules for implementing the changes.

The 1999 NEP Update reported on progress towards the achievement of national targets presented in the NEP and then examined emerging issues for each of the education cycles: elementary, primary, secondary and vocational. Based on this analysis, targets and projections have been modified where deemed necessary. Follow-up action for addressing emerging implementation issues have been outlined for each of the cycles, and responsible parties are identified. For the first time all provinces have a Provincial Education Plan. It is unfortunate that some have yet to be endorsed by respective Provincial Executive Councils.

Following the introduction of the revised Organic Law on Provincial and Local Level Governments in 1995, changes have centered mainly on resource allocation, with provincial and local level governments being the principal recipients of funds for the provision of NES. Provincial and local level governments are the main providers of elementary, primary and secondary education. They also have substantial roles in adult, in-formal and vocational education. Curriculum and standards are monitored by the DOE allowing for an increasing flexibility for the development of local initiatives. The National Government is wholly responsible for technical and post-secondary education.

The DOE aims to improve the planning and management capacity of District Education Administrators through the provision appropriate facilities and on-going training to District Education Administrators.

The DOE recognizes the following key priorities for all partners in education for the next decade: The attainment of Universal Basic Education (UBE), national skills plan and quality education initiatives.

Attainment of UBE - Basic Education means educating children from elementary prep to grade 8. The target is to provide Basic School Education for all children (Universal Basic Education). Offering of basic literacy and numeracy training to illiterate out-ofschool youths and adults is also part of basic education. NEC has approved that the National Literacy Policy will direct the raising of the 1990 print literacy rate of 45% to 70% by 2010. This is an ambitious target for the DOE to achieve with limited funding.

There are certain factors that affect the achievement of UBE: low access (remoteness, shortage of space), low retention (tribal fighting, distance to school, lack of interest, school fee problems) and low standards (maintain high standards of learning). The DOE is addressing these factors in collaboration with provincial education authorities.

National Skills Plan - The present orientation of education remains mostly an academic one. The adoption of the National Education Skills Plan implies a re-balancing of education between academic and life skills education to provide a relevant education for the majority of students at school.

Quality Education Initiatives - The DOE will aim at quality education intervention programs. Quality interventions include: Curriculum development and materials; Examinations; Teacher training and teacher upgrading; and Teacher supervision and inspections.

The DOE accepts the fact that the achievement of the above development priorities will require every stakeholder making a contribution to the following needs and activities. The major activities include: Housing and building infrastructure, Education standards and monitoring, and Strengthening management capacity.

Housing and building infrastructure activities will include: Teacher housing; Specialist buildings and classrooms; and Inspector housing.

Education Standards and Monitoring activities will include: Training and upgrading of inspectors and guidance officers; Improving teacher supervision, teacher appraisal and reporting; Expanding guidance and counseling services; Strengthening CDD/MSU capacity; Examinations and school based assessment; Pre- and inservice teacher education; and Curriculum development, materials procurement and distribution.

Strengthening management capacity in: Teachers salary management; Provincial and district education administrations; School administrations; Education Management and Information System; and Education research and evaluation activities.

The administration of the NHES is vested in the following education authorities: the Minister, the Commission for Higher Education, the Director General of Higher Education, and University Councils.

The major objective of the next five year plan of higher education as contained in the National Higher Education Plan II, 1999 - 2004 (NHEP II) is to translate much needed reform in higher education into action. The NHEP II builds on the analysis and foundation design laid down in the White Paper by transforming the reform plan into an action strategy to stabilize and develop higher education.

The White Paper noted that, in general, higher education in PNG is small, costly, dependent on foreign expertise, and not very effective in terms of outputs. It also records that the GoPNG expenditure on higher education fell by more than 30 percent in the four years to 1996. The proportion that was allocated to higher education, research, science, and technology, within their sectors, has also diminished since 1996 as the value of the Kina has declined.

It is evident from recent funding oscillations that the State cannot provide high or increasing levels of resource support for higher education. Public HEI in PNG are too dependent on the Government as the major and almost exclusive source of funds. The progressive reduction in GoPNG's recurrent financial allocations in recent years should be an added stimulus for HEI to seek out complementary resources.

The NHEP II is realistic in what might be achievable in higher education in a five-year period. The plan builds on a solid base, which, although insufficiently coordinated, has greater potential than is generally acknowledged. Clearly, there is room for improvement, even though some institutions argue that they are currently struggling to exist in a survival mode. Implementation that is based on strategic action is planned to be progressive and sequenced. It is not designed to be executed in massive changes towards possibly unattainable goals. Against this assessment, two of the guiding principles underpinning the plan are: achievable change linked to manageable outcomes.

Successful implementation of the policies and strategies of the NHEP II will be accomplished through coordinated legislative, structural, and organizational changes. In turn, these relate to the development of improved information systems, and the reform of resource management procedures which service higher education, research, science, and technology programs. Over and above any input requirement for additional funding is the need for renewed commitment, and for the subsector and HEI to increase productivity, and responsiveness and responsibility.

Donor support has played an important role in the success of the reforms in the NES. While their support is still needed, the DOE and provinces ought to realize and take immediate actions to sustain current donor assisted projects.

The NHES has to ensure that the NHEP II is implemented as soon as possible. It should guide the subsector to prioritize its development programs. This is important for attracting donor assistance to further develop higher education in PNG.

Resource limitations will determine the achievement of the education reforms in the NES and NHES within the proposed time frame. Adequate funding must be allocated to support the effective and equitable provision of education services throughout the country. Those responsible for both the NES and NHES must come together and identify priority areas which will assist the Aid Donors in deciding which projects or programs to fund. This is critical because Donor assistance will continue to be a significant component of further developing and enhancing the quality of education in PNG in the 21st century.

A. AN OVERVIEW OF EDUCATION DEVELOPMENT IN PAPUA NEW GUINEA

1. GOVERNMENT POLICY AND PLAN

Any responsible Government of a country must not only preach but also understand the significance of educating its people. The advancement of any society depends on the level of education its citizens receive. This will depend on two important factors, namely: the quality and the relevance of education provided. The quality influences the degree of creativity embedded in the minds of the students and relevance relates to the appropriateness of the education curricula in training the students to adopt to their social (cultural), economic and physical environment.

A review of the short history of Papua New Guinea (PNG) as an independent nation shows that much has been achieved. PNG is a democracy, where citizens can speak openly. Public awareness extends further beyond traditional clan and village boundaries. The rural majority are still subsistence farmers, but most also have cash incomes. Large-scale commercial logging and mining activities have placed PNG on the world's economic map.

However, reviews of major indicators of human development show that PNG lags far behind most all nations in the South Pacific region, except for the least developed of developing countries¹. Data on adult literacy, participation in education, life expectancy, and per capita gross domestic product (GDP) show that PNG's development plans and strategies are not reaching the grassroots and this raises some very serious problems (see Tables 1, 2, 3 and 4 in Annex - 1).

There are also other worrying indicators. Urban unemployment is rising as people migrate into towns and cities and aspire to work in the formal economy, without any matching opportunities. Government operations often confirm and strengthen a 'handout mentality', rather than encouraging enterprise. The status of women is depressed because old sources of discrimination persist, and new disadvantages grow as women are denied equal access to the formal economy. An under-class in villages and urban settlements does not benefit from the modern society and disadvantages are compounded and reflected by growing social disorder.

1.1 Ministry of Education

1.1.1 National Objectives and Programs²

The National Executive Council (NEC) has assigned four national objectives to the Ministry of Education:

(a) to develop an education system to meet the needs of Papua New Guinea and its people, which will provide appropriately for the return of children to the village community, for formal employment, or for continuation to further education and training.

¹ AusAID, 2000. *The Economy of Papua New Guinea, 1999 Report.* International Development Issues No. 53. The Australian Agency for International Development, Canberra.

² Ministry of Education, 1996. National Education Plan, 1995 – 2004, Volume A. Government of Papua New Guinea, Port Moresby, page 2.

- (b) to provide basic schooling for all children as this becomes financially feasible;
- (c) to help people understand the changes that are occurring in contemporary society through the provision of in-formal education and literacy programs; and
- (d) to identify the manpower development needs in the public and private sectors, and to provide appropriate higher education, development and training programs.

From these objectives, four programs have been developed and are linked to national development objectives. These programs are:

- (a) The Education Access and Expansion Program, which directly fulfils National Objective 25 to provide basic schooling for all children.
- (b) The Relevant Education for All Program, which is designed to contribute directly to National Objective 24 – to develop a schooling system to meet the needs of Papua New Guinea and it's people, which provides appropriately for the return of children to further education or training.
- (c) The Literacy and Information Program, which is intended to contribute directly to the fulfilment of National Objective 13 to help people understand the changes that are occurring in contemporary society.
- (d) *Higher Education* which will gear resources to satisfy the qualified manpower requirements of the economy.

1.1.2 Integral Human Development Concept

Through integral human development concept, as outlined in the National Constitution and the Philosophy of Education Report³, the Government of Papua New Guinea (GoPNG) has called for the education system to give value and status back to appropriate social attitudes, knowledge and skills which are relevant to community development. This must be supplemented with a degree of competence in English, mathematics and science in order to ensure the development of Papua New Guinean citizens who:

- (a) will have a strong moral value system which places emphasis on personal integrity, the equality of all members of society, and the importance and relevance of traditional values in modern life.
- (b) are committed to their own personal development, and view education as a continuing life-long process;
- (c) possess a productive work ethic, and value both rural and urban community development activities in the context of national development;
- (d) are prepared for the realities of life in most communities; and

³ Ministerial Committee Report, 1985. A *Philosophy of Education for Papua New Guinea*. Ministry of Education, Port Moresby.

(e) have the capacity to participate in further training for manpower needs.

1.2 Lower and Further Education Development

1.2.1 Major Events⁴

The milestones in addressing the lower and further education reform issues in Papua New Guinea are briefly outlined in this section.

(1) Tololo Committee

A committee chaired by the then Director of Education, Sir Alkan Tololo, drafted a post – independence five year education plan in 1974. It proposed that schooling would be community based, the use of vernaculars would be emphasised, education should be linked to development and more widely and more equally provided. It also suggested to expand primary schooling to Grade 8 and expand access to Grades 9 and 10. This committee also raised concern regarding the low access to education given to females and those from disadvantaged areas.

(2) A Philosophy of Education

This report entitled 'A Philosophy of Education'⁵ was published in 1985 and it stressed that the school can help educate children but cannot and should not be regarded as the only agent of education. The emphasis was on integral human development since a lot of elements outside of the school influence a child's life such as the home and the wider community. This report can be considered to be the beginnings of the education curriculum reform in PNG.

The following recommendations from this report have become the cornerstone to the current education reforms in PNG:

- (a) That the vernacular language be used as the medium of instruction in the early years of schooling and English be used in the later years (Recommendation 12). Comment: This is an innovative approach as it allows the children the freedom to explore their immediate environment using language and numerical tools and at the same time develop the necessary skills to progress on to primary level⁶.
- (b) That ways be found to immediately expand upper secondary education (Recommendation 13). *Comment: This is an important initiative for addressing the transition bottleneck between Grades 10 and 11 in old education system.*
- (c) That funds be redirected from Higher Education to wards the goal of Universal Basic Education (Recommendation 8). *Comment: This is a very*

⁴ Ministry of Education, 2000. *The State of Education in Papua New Guinea*. Department of Education and AusAID, Port Moresby, pages 6 - 12.

⁵ Ministerial Committee Report, 1985: A Philosophy of Education for Papua New Guinea. Ministry of Education, Port Moresby, pages 47 - 49.

⁶ The comments provide an update to the recommendations from the Ministerial Committee Report, 1985.

contradictory suggestion in relation to recommendation 13. It is self defeating to increase the upper secondary and neglect the higher education subsector. In the next 5 years adequate funding should be made available to higher education to increase the capacity of tertiary institutions for absorbing the increasing number of Grade 12 School Leavers.

- (d) That standards in English and Mathematics be nationally monitored and further improved (Recommendation 15). Comment: Both of these subjects are important for all other subjects in the current education system. Even to this day the Grade 12 School Leavers who enter universities still have difficulties expressing themselves in English and lack basic mathematical knowledge. Whether a student decides to live in a town or a village he/she should still have a good appreciation of English and mathematics. Our villages like the towns are increasingly becoming part of the global village.
- (e) That those who form upper secondary and tertiary level education should pay a larger proportion of the costs of that education (Recommendation 7). Comment: This recommendation would make sense if the Government funded 90% of the lower education cost. It is also important to provide scholarship support for students who are socio-economically disadvantaged. The current student loan scheme for tertiary students should be widely publicised to the wider community for the acceptance of the concept by students, parents and relatives.

(3) A Declaration of Education For All

The Declaration of Education for All was signed in Jomtien, Thailand, in 1990 which obliges the National Government to provide Education For All. This declaration has enormous financial implications for a country like PNG. It will also require the National and Provincial Governments develop appropriate implementation plans.

(4) The Education Sector Study

The Education Sector Study conducted in 1991 identified certain problems of the PNG education system developed during the Australian Administration era and proposed strategies of resolving these problems. The origins of the current education reform can be linked to this study. The most important conclusion derived from this study was that PNG could not achieve either Universal Basic Education or its targets for increased access to secondary education under the system of education established during the colonial era.

(5) The Conference of the Council of Education Ministers

The findings of the Education Sector Study were considered and the recommendations of the Study were endorsed in this conference in 1991. The Department of Education was requested to prepare appropriate strategies for implementing the recommendations.

(6) 1991 National Executive Council Decisions

The National Executive Council (NEC) made two decisions (NEC Decision 183/91) which made way for the Department of Education to commence the implementation strategies of the education reform agenda.

(7) A National Education Reform Task Force

The National Education Reform Task Force was established in 1992 to identify suitable means of implementing the recommendations of Council of Education Ministers of 1991. This Task force consisted of representatives from the Department of Education, the provinces and other interested parties. It was agreed to commence the primary and secondary initiatives in the Madang and West New Britain Provinces.

Provincial Education Reform Task Forces were also formed during this period to consider ways in which they could implement the proposed reforms in the provinces.

(8) 1994 National Executive Council Decisions

Further decisions of the NEC (NEC Decision 68/94) approved the expansion of access to Grades 7 and 11. These were critical decisions for commencing the upgrading of provincial high schools under the education reform activities in PNG.

(9) Education Sector Resources

A major study entitled the Education Sector Resources Study was embarked upon in 1994 and 1995. This study was co-funded by Australian International Development Assistance Bureau (AIDAB, now AusAID), the Asian Development Bank (ADB) and the GoPNG. It was realised that there were enormous cost implications involved with the implementation of the education reforms. The Resource Study looked at all of these implications – financial, manpower, infrastructural, etc. A major finding was that although the education reforms reduced unit costs significantly there was still a resource gap needed for the implementation of the reforms. In order to achieve this PNG would need to commit itself to a number of cost saving and cost recovery measures (these are highlighted in Section 4 on Government Budget and Expenditure).

(10) The National Education Plan

The National Education Plan⁷ was completed in 1996 and the NEC endorsed it in 1997. The Plan leans heavily on the recommendations from the Education Sector Review and the Resources Study. The Plan is in two parts. Part A describes the problems and outlines what should be done while Part B analysis the past and the reasons for the education reform program.

(11) Provincial Education Plans

In a decentralised system, such as that operating in PNG, it was realised that there was a need for Provincial Education Plans to translate the National Education Plan at the provincial level. The actual work on these plans started in 1995 and has been ongoing.

⁷ Ministry of Education, 1996. National Education Plan 1995-2000, Volumes A and B. Government of Papua New Guinea, Port Moresby.

The DOE has been working closely with provinces in order that these plans can be completed and endorsed by their respective Provincial Executive Councils.

The role of DOE is to ensure that the Provincial Education Plans are consistent with the National Education Plan and to provide technical expertise where required. It is important that provinces have a sense of ownership of these plans. By the end of 1999 eighteen provinces completed their education plans, along with the implementation schedules. A much lower number had managed to get their plans endorsed by the Provincial Executive Councils. A few provinces started the important process of reviewing and amending their plans in 2000.

(12) World Bank Education Sector Study

The World Bank conducted an education sector study in early 1998. This study looked at the implementation of the education reforms. It painted a particularly good picture whilst identifying the problems that were being faced by the country. Five key issues were identified in relation to reform implementation: teacher supply, institutional strengthening, assessment, curriculum development and internal efficiency.

(13) 1998 Ministerial Consultations

The Ministerial Consultations conference held in Lae in January 1998 recommended that all provinces should have completed their provincial education plans by September 1998 and that these plans be consistent with the National Education Plan. This meeting strongly reaffirmed its commitment to the education reform agenda.

(14) World Bank Resource Allocation and Reallocation Study

One of the objectives of this World Bank funded study was to look again at measures identified in the Resources Study to allow education services to be provided in a more efficient manner. This study was completed in late 1998 and the critical recommendation highlighted the need to look carefully at teacher deployment. Funds saved through a more efficient use of teachers could then be used for a variety of activities such as incentives for teachers to go to more remote areas.

(15) Department of Education Corporate Plan

The Department of Education Corporate Plan 1998-2002 was produced in 1998 following a directive from the Prime Minister's Department. It should be seen as a companion document to the National Education Plan. This corporate plan should be revised in 2001 for the next five year period from 2003-2007.

(16) 1999 Ministerial Consultations

The Chairmen of the Education Committees in each province reported on the progress that had been made on their education plans during the Ministerial Consultation conference in January 1999. Major decisions were made with regard to a National Education Skills Plan and the state of literacy in the country. The Department was requested to present the completed National Education Skills Plan at the 2000 Ministerial Consultations.

6

(17) Technical Vocational Education and Training (TVET) Corporate Plan

This document was produced for the Ministerial Consultations in Rabaul in 1999. At this conference the Department of Education was requested to reconsider the draft and to consult more fully with the provinces. It was endorsed in principle at the Senior Officer's Conference in Goroka in June 1999. The TVET Plan shows the way forward in relation to the unification of Technical and Vocational education in PNG.

(18) National Education Plan Update Number 1

The National Education Plan update was completed towards the end of 1999. This document looked at the progress made in the implementation of the education reform agenda. It did not propose any new directions but did address some of the implementation issues that have emerged since 1994.

(19) Asia Pacific Education For All Conference

This conference was held in Bangkok, Thailand, in January of 2000. This conference was a follow up to the Jomtien Conference of 1990 and was attended by 44 nations from the Asia Pacific region. The conference took stock of the progress made in the provision of basic education for all in the last ten years.

1.2.2 National Education Plan 1995-2004

(1) *Aims*⁸

The aims of the Plan are to provide an education system that will adequately prepare:

- (a) school leavers to return to their communities where there is, and always has been, traditional work and opportunities for community-based employment. This covers approximately eighty-five percent of the population. The major source of employment for these citizens will be their own subsistence and small-scale, community-based commercial enterprises. Their education will have prepared them and/or their parents for this reality;
- (b) the approximately fifteen percent of the population who will find paid employment in the slowly increasing government, business, and service industries. Their education will have provided them with the academic and technical skills to allow them to partake in tertiary education;
- (c) the small number of children, like those of any other nation, who will perform at top international standards; and
- (d) the small, but growing, number of marginalised urban youth for the realities of life in an urban situation.

The policies, strategies and emerging issues regarding the implementation of the National Education Plan are discussed under Lower Education (Section 3.3), Further Education (Section 3.4) and Distance and Informal Education (Section 3.6).

⁸ Ministry of Education, 1996. National Education Plan, 1995 – 2004, Volume A. Government of Papua New Guinea, Port Moresby, page 2.

(2) Policy and Planning Initiatives

Major policy and planning initiatives since the National Education Plan was approved by NEC in 1997 are outlined in Table 5, Annex - 2.

1.3 Higher Education Development

1.3.1. Major Events

The major events in higher education development in PNG are outlined in this section.

(1) Establishment of Universities

The University of Papua New Guinea (UPNG) was established in 1965. For political reasons, the technology based higher education programs were moved to Lae under the Papua New Guinea Institute of Higher Technical Education in 1965. This Institute was upgraded to the PNG University of Technology (UOT) in 1986. The Chan Government approved the establishment of the two state universities: University of Goroka (UOG) and University of Vudal (UOV), respectively, by Acts of Parliament in 1997. Two private institutions were also accorded university status, namely: Divine Word University and Pacific Adventist University, in 1997.

(2) Committee of Inquiry into Higher Education in Papua New Guinea

The Minister for External Territories, the Hon. C E Barnes, established this Committee in December 1970 to inquire into and make recommendations in respect of institutions that could conduct post-secondary and tertiary courses. The recommendations of the Committee⁹ which have had a large influence on the higher education development before and after independence include the following:

- (a) That a Tertiary Education Commission be established as an advisory body with following functions:
 - (i) To advise the Government on tertiary education and, in particular, on the needs of the community for sufficient people to be trained and educated to achieve a balanced development of resources; and
 - (ii) To advise the tertiary institutions of PNG with a view to promoting co-ordination and mutual assistance (Recommendation 1 (a)). Comment: The Commission for Higher Education (CHE) was established with the above functions¹⁰.
- (b) That a Tertiary Education Finance Board be appointed by the Government to advise on financial proposals made by the UPNG and the Institute of Technology (now UOT) and on any other financial matters in the tertiary field that are referred to it (Recommendation 2 (a)). *Comment: This Board was never set up as proposed. However, the CHE has agreed*

¹⁰ The comments provide an update to the recommendations from the Ministerial Committee Report, 1971.

⁹ Ministerial Committee Report, 1971. Committee of Inquiry into Higher Education in Papua New Guinea, Ministry of External Territories, Canberra, pages 3 - 6.

to establish such a board as proposed in National Higher Education Plan II (NHEP II), 2000 - 2004.

- (c) That all tertiary institutions other than UPNG and UOT be linked into loose federations according to areas of vocational interest (Recommendation 3 (a)). Comment: This concept was never fully implemented and up to this day the tertiary institutions have not formed loose federations as proposed. This is due to the fragmented nature of managing HEI in PNG.
- (d) That there should be the fullest cooperation between UPNG and the Administrative College (now the PNG Institute of Public Administration, PNG-IPA) in developing courses and that, in due course, UPNG develop postgraduate courses in public administration (Recommendation 11). *Comment: There has been some form of cooperation between UPNG and PNG-IPA but not in the same manner it was proposed.*
- (e) That the Tertiary Education Commission give consideration to the provision of full opportunities for women to receive higher education and to the provision of suitable accommodation for married students (Recommendation 19). *Comment: The CHE encourages more women to enter higher education. The four state universities provide accommodation to married students. However, this has created other social problems on the campuses. UPNG does not provide student married accommodation.*
- (f) That junior colleges be established in lieu of the existing and proposed senior (national) high schools and that the curriculum at these colleges be specifically geared future tertiary studies (Recommendation 20 (a)). Comment: GoPNG opted to establish senior high schools instead of junior colleges. However, the national high schools have not been well funded over the years resulting in the deterioration of these facilities which affects student learning.
- (g) That the Preliminary Year at the UPNG and Introductory Studies at UOT be phased out as quickly as possible (Recommendation 20 (b)). Comment: This recommendation has been implemented at both UPNG and University of Technology, respectively.

(3) Commission for Higher Education/Office of Higher Education

The Higher Education Act of 1983 established the Commission for Higher Education (CHE) as the government's principal advisory and consultative body in higher education. The Office of Higher Education (OHE) was established as the public service arm of CHE.

(4) National Higher Education Plan

The CHE prepared the first National Higher Education Plan and was endorsed by the Parliament in 1990. The implementation of the plan was very slow due to the fragmented nature of the institutions offering higher education programs. Moreover, there were no proper dialogue channels established for fine tuning the implementation of the Plan by the key stakeholders in higher education.

(5) Higher Education Project

The CHE developed the Higher Education Project which was designed as the major investment program for the higher education sub-sector since independence. The purpose of the project was to train Papua New Guineans at Masters and Doctoral levels for UPNG and UOT and to strengthen the capacity of CHE and improve the curricula of Primary Teachers Colleges. The issue of training sufficient Papua New Guineans at the Masters and Doctoral levels to undertake academic careers in the higher education subsector is a complex one.

(6) *Ministry of Higher Education, Research, Science and Technology*

This ministry established in 1994 was responsible for higher education, research, science and technology (HERST) under the Wingti-Chan Government to give prominence to the role played by this subsector in the development activities of PNG. The CHE and OHE become part of this ministry. The Ministry of HERST was abolished in 1995 when the then Minister for HERST was appointed Minister for National Planning. The responsibilities for higher education were transferred back to the Minister for Education.

(7) Summit on Higher Education, Research, Science and Technology

The Minister for Higher Education, Research, Science and Technology directed the CHE to convene a summit to address outstanding issues in higher education, research, science and technology. This summit succeeded in bringing together stakeholders in higher education to address critical issues.

(8) 1995 Amendment of Higher Education Act

The amendment of the Higher Education Act 1995 removed the autonomy of CHE. The Secretary of Education became the Chairperson of the Commission. This led to the OHE being treated as a division of the Department of Education from 1996-1998.

(9) White Paper on Higher Education, Research, Science and Technology

The Minister for HERST directed the OHE to prepare a White Paper on Higher Education, Research, Science and Technology in 1995. The draft White Paper was completed in 1996. The CHE and National Executive Council endorsed the White Paper in principle in 1997. The White Paper¹¹:

- (a) offered a long-term vision for PNG to which higher education, research, science, and technology can contribute. The purpose is to stimulate and direct constructive planning;
- (b) noted current constraints that must be overcome if the vision is to be achieved. The purpose is to anchor planning in existing realities and to avoid "pie in the sky" optimism;

¹¹ Commission for Higher Education, 2000. The National Higher Education Policy and Implementation Strategy. White Paper on Higher Education, Research, Science and Technology, Volume I. Office of Higher Education, Port Moresby, pages ix – xii.

- (c) presented a Reform Program of policies and strategies to optimise the contributions of higher education, research, science, and technology to national capacity building; and
- (d) indicated essential follow-up action for legislative change, structural adjustments, institutional strengthening, private sector participation, and resource planning to ensure the successful implementation of the Reform Program.

The proposed vision of the Reform Program is as follows:

- (a) a lively, just, and self-reliant nation of forward and outward-looking citizens;
- (b) at peace with out neighbours at home and abroad;
- (c) proud of our rich cultural and environment diversity;
- (d) upholding and upheld by Christian principles; and
- (e) equipped with the best that higher education, research, science, and technology can provide, in order to improve and sustain the quality of life, for the good of the nation as a whole, in accordance with the National Goals and Directive Principles embodied in the Papua New Guinean Constitution.

Major policies and strategies for the achievement of the objectives of the Reform Program for higher education were identified to be:

- (a) Increasing access, equity, and participation;
- (b) Improving quality, relevance, standards, and range;
- (c) Sectoral coordination and direction; and
- (d) Resource planning and management.

(10) Summit on Higher Education

This summit was entitled 'Vision 2005: Higher Education Summit'¹² and its purpose was to:

- (a) provide a forum for critical players in the higher education sector to collectively articulate the vision for higher education in PNG;
- (b) help address and resolve relevant and current issues; and
- (c) help formulate the basis for a comprehensive national policy framework for the higher education sector.

¹² Commission for Higher Education, 1998. *Higher Education in Papua New Guinea: Looking Ahead*, Office of Higher Education, page 8.

Resolutions were passed at this summit in the following areas: access, equity, affiliation, partnership, accreditation, quality assurance, sectoral coordination, government support, donor funding, institutional self-financing, privatisation of non-core functions, national admission centre, information technology, student financing, cost-effective mode of higher education delivery, institutional and industry linkage, and research in higher education/science and technology.

(11) 1998 Amendment of Higher Education Act

The amendment of the Higher Education Act 1998 enabled CHE to regain its autonomy. A Director-General was appointed in 1998 to oversee the operations of OHE. The CHE and OHE need to be pro-active and aggressive in their coordination roles for the higher education subsector in the twenty first century.

(12) Tertiary Education Study Assistance Scheme

The National Government approved the Tertiary Education Study Assistance Scheme (TESAS) in 1999 for implementation in 2000. This scheme replaced the old National Scholarship Scheme where the students did not pay for their tertiary education costs. There were four categories under TESAS: academic excellence, higher education contribution scheme, self sponsored students and privately sponsored students (includes corporate and private industry, Pacific Islands Government and Overseas Aid Agency sponsored students). There are certain implementation issues of this scheme that require fine tuning by the OHE and higher education stakeholders.

(13) National Higher Education Plan II

The OHE prepared a National Higher Education Plan II, 2000 - 2004 which was endorsed by the CHE in 2000. It will be considered by NEC and then presented to the National Parliament in 2001.

(14) PNG – Ernet Feasibility Study

Fifteen education and research institutions agreed to enter into a partnership and undertake a feasibility study regarding the utilisation of information technology (IT) in education and research under PNG social and economic conditions. A network feasibility team was formed under the leadership of UOT in early 2000 to undertake the study. This feasibility study was conducted to:

- (a) Review Government Policy on IT in relation to advancement of education and research in PNG, and study the development trend in educational uses of IT in the world;
- (b) Investigate the need for networking and resource sharing mechanisms between educational and research institutions in light of current budgetary constraints.
- (c) Identify sources of funding available for development of IT, Internet and networking in the country for purposes of education, training and research.

- (d) Identify human resources required to develop and sustain the Network and provide support services.
- (e) Make recommendations to the Partners on:
 - Any policy issues that need to be addressed relating to the use of information technology and technology transfer, in particular the Internet as a tool for enhancing and developing education, training and research in Papua New Guinea;
 - (ii) The possible implementation strategies in establishing a private education and research network, that would encourage collaboration, minimise expenditure, and optimise resources; and
 - (iii) A comprehensive human resource development program, that will run in parallel with planned network development.

The final report is expected to be completed in 2001 which will need to be endorsed by the CHE and National Government for implementation under donor funding.

1.3.2. National Higher Education Plan II

The principle features of the National Higher Education Plan II (NHEP II)¹³, 2000 – 2004 are outlined in this section.

(1) Objective

Successive Papua New Guinean governments have identified human resource development as a fundamental priority for continuing national development. This commitment includes a focus on strengthening education and training. It recognises that people are a very valuable national resource which does not depreciate and has potentially increasing worth. NHEP II is a human capital investment program. It is included within the second priority that was given to education, after health, in the reconstruction program of Sir Mekere Morauta's Government.

The fundamental objective of the NHEP II is to translate much needed reforms in higher education, research, science, and technology into action, in the five years from 2000 to 2004. The underlying vision follows that expressed in the White Paper on Education, Research, Science, and Technology which was submitted to the NEC (Decision No. 111/97). The NHEP II builds on the analysis and foundation design laid out in the White Paper by transforming the reform plan into an action strategy to stabilise and develop higher education, research, science, and technology.

(2) Policy Framework

The simplified conceptual framework for the NHEP II takes account of the turbulent environment affecting policy development and planning in Papua New Guinea (PNG), and its impact on higher education. Within a coherent policy framework, the plan endorses and incorporates the dynamic interaction of three key variables:

(a) policy formulation as an ongoing process within an integrated plan;

¹³ Commission for Higher Education, 2000. The National Higher Education Policy and Implementation Strategy. National Higher Education Plan II, 2000 – 2004. Office of Higher Education, Port Moresby, pages ix – xii.

- (b) realism and pragmatism concerning available resources; and
- (c) strategic action and progressive implementation.

The reform program of the White Paper was designed to achieve demonstrable increases and improvements in the three main bases of the program – *productivity; responsiveness and responsibility*; and *partnership*. These three basic themes are integrated into the NHEP II and the concept of partnership and relates to individual opportunity as well as to the idea of mutual interdependence. This attribute is a core value in tribal society, and key human resource development institutions such as higher education institutions (HEI) should constantly reaffirm its importance to national well-being in PNG.

(3) Higher Education Co-ordination

Policy and legislation governing the present National Higher Education System (NHES) have grown incrementally, and some elements are inadequate or inappropriate to the already altered and rapidly changing situation. Proposals embodied in the White Paper, and recommendations in the NHEP II necessitate a thorough review of existing policies and legislation at the system and institutional levels. Overall, there is a low level of effective coordination and planning for the subsector. Most institutions advance by individual or departmental initiative, rather than in the broader interest of the subsector or the nation.

Higher education will expand and become more differentiated and complex, thus requiring an increased level of policy formulation and coordination. The Commission for Higher Education (CHE), and the Office of Higher Education, (OHE) while recognising the autonomy of HEI legislatively based in PNG, must become more pro-active in providing effective coordination for the subsector under its mandate. To address and manage these and other challenges, the CHE should enlarge its membership to twelve, and increase its access to expertise through the operation of CHE standing committees.

Membership of these committees will comprise highly qualified persons or experts in the field, mostly drawn from HEI and the professional and the business/employment community.

(4) Demand for Higher Education

There is evidence of an increasing demand for higher education enrolment and of a market driven growth of higher education programs being offered by church agency, private, and other HEI based in PNG and overseas countries. Changing market conditions indicate that PNG will benefit from the further development of private HEI. Private providers should be allowed to offer courses and programs, within a comprehensive National Higher Education System, subject to quality considerations and appropriate legislative requirements.

(5) Cultural Transformations

Reform of higher education organisational arrangements and governance mechanisms alone will be insufficient, even if more organic components of teaching, research and

service are also added. What is needed is a cultural transformation in the case of larger degree granting HEI and small departmental colleges. Whatever criteria may be used to define HEI, the reformed culture of each institution should include:

- (a) policy and operational expressions of inclusiveness in respect of institutional development, the wider interests of the higher education subsector, and the national commitment to human resource development through formal education and training; positive articulation with other levels of education and training, particularly in relation to other HEI, through accreditation, credit transfer, and award pathways, and appropriate recognition of prior learning;
- (b) active strengthening of standards and expertise in relation to national and employment needs with increasing emphasis on quality assurance;
- (c) evident responsiveness and responsibility both personal and institutional
 in the use of resources allocated by the State, and demonstrated by an ethic of service and effective management; and
- (d) increasing productivity in such areas as the number and quality of graduates, acquisition of scholarship and other funding from non-governmental sources, and the relevance of research and consultancy activities to national and community issues.

(6) Components of the Plan

The emphasis on action implementation influenced the format of the NHEP II. The NHEP II, 2000 - 2004, includes eight *plan components*. The major sections, each dealing with a key issue in higher education at the national system and/or institutional levels include: Component 1: Legislation, Structure and Co-ordination; Component 2: Academic Programs; Component 3: Access, Equity, and Output; Component 4: Accreditation and Quality Assurance; Component 5: Distance and Flexible Learning; Component 6: Resources; Component 7: Institutional Governance and Management; and Component 8: Research, Science and Technology

The White Paper on Higher Education, Research, Science and Technology provides a broader discussion and analysis supporting many of the policy and action recommendations in the NHEP II. Within each plan component are a varying number of plan subcomponents that deal with specific issues. A total of 68 plan subcomponents have been identified, each of which is outlined, according to a standardised format.

The NHEP II, following the approach of the White Paper, does not present cost estimates for all items in this plan for the total plan period. The NHEP II is an action strategy for reform, and involves progressive implementation that is aimed at creating a more stable base for ongoing development. The NHEP II is not a predictive plan that draws upon statistical projections to fix goals to which a global cost sum can be assigned for total, annual, and other major expenditures. Also, the NHEP II does not include, for these and additional reasons, any projection of capital works and costs.

Access to data, and its reliability have been challenges frequently encountered in preparing the NHEP II, just as they were for the team drafting the White Paper. As often noted, PNG is well-furnished with reports that it has not been able to implement,

arguably because of policy and leadership discontinuities which are tangibly expressed as funding shortfalls.

1.4 Structure of Education System

The structure of education (as shown in Figure 1, page 99) provides for nine years of basic education (3 years elementary and 6 years primary), and four years of secondary education. Grades 9 and 10, lower secondary, have parallel provision for vocational education. There is also a wide range of 'permitted' institutions which offer two or more years of secondary education, with a bias determined by the needs and opportunities of the areas which they serve. Grades 11 and 12 comprise upper secondary.

Tertiary education includes universities and a range of colleges, including teachers colleges, technical colleges, nursing colleges. There are also an increasing number of private providers.

The College of Distance Education (CODE) provides open and flexible learning for lower education courses under the Department of Education. Other distance education providers such as UPNG and UOT also offer matriculation level courses and diploma courses.

2. LEGAL FRAMEWORK

2.1 Acts of Parliament

The National Education and National Higher Education Systems are governed by the following Acts:

The Organic Law on Provincial and Local Level Government, 1995 (as amended since 1995)

The Education Act, 1983 (as amended 1995)

The Teaching Service Commission Act, 1988 (as amended 1995)

The Higher Education Act, 1983 (as amended 1995, 1998)

The National Libraries and Archives Act 1993

The University of Papua New Guinea Act, 1983

The Papua New Guinea University of Technology Act, 1986

The University of Goroka Act, 1997

The University of Vudal Act, 1997

The Divine Word University Act, 1997

The Pacific Adventist University Act, 1997

The Minister responsible for education affairs provides oversight to these Acts.

2.2 Organic Law

There had been a devolution of responsibilities to and within provinces following the introduction of the revised Organic Law in 1995. In the case of education, these changes have focused mainly on resource allocation, with provincial and local level government being the principal recipients of funds for the provision of education services. The distribution of functions across the three levels of responsibility is highlighted in sections 3.3 and 3.4.

2.3 Policy Formulation

The formulation of policy for various subsectors in education comes under the following bodies:

- (a) National Library and Archives Board is responsible for all library and achieve policy matters;
- (b) Teaching Service Commission is responsible for all policy matters on terms and conditions of teaching staff employed in elementary, primary, secondary, high and secondary schools, technical/business colleges and teachers colleges;
- (c) National Education Board is responsible for all lower and further education policy matters;
- (d) Commission for Higher Education is responsible for all higher education policy matters; and
- (e) University Councils are responsible for policy development of universities (independent of the CHE).

The relationship between the Minister for Education and these policy formulation bodies is shown in Figure 2 page 100.

3. SERVICE DELIVERY SYSTEM

The Education Sector is made up of the National Education System (NES) and the National Higher Education System (NHES). The NES consists of lower education (elementary, primary, secondary and national high schools) and further education (technical/business and teachers colleges). The Provincial Governments are responsible for elementary to secondary schools while the Department of Education is responsible for national high schools, technical/business colleges and teachers colleges. The NHES is mainly concerned with higher or university education and the CHE/OHE provide co-ordination at the national level.

3.1 National Government

The National Government, through the Ministry of Education (Figure 2), plays a critical role in coordinating the overall education service delivery system of PNG.

3.1.1. Department of Education

(1) Mission¹⁴

The mission of the Department of Education, as defined by the National Executive Council, is:

(a) to facilitate and promote the integral development of every individual;

¹⁴ Ministry of Education, 1999. National Education Plan, 1995-2004: Update Number I. Department of Education, Port Moresby, page 1.

- (b) to develop and encourage and education system which satisfies the requirements of Papua New Guinea and it's people;
- (c) to establish, preserve, and improve standards of education throughout Papua New Guinea;
- (d) to make the benefits of such education available as widely as possible to all of the people; and
- (e) to make education accessible to the poor and physically, mentally and socially handicapped as well as to those who are educationally disadvantaged.

The principle features of the divisions of the Department of Education which have national responsibilities, in relation to the implementation of the Education Reform Agenda are outlined in the next sections (2) to (5), respectively.

(2) Responsibilities of Curriculum Development Division (CDD)¹⁵

Curriculum Development consists of the design and development of syllabuses, curriculum statements, textbook specifications and teachers' guides, the procurement, production and distribution of materials and the monitoring of standards.

The vision of the CDD is to provide a curriculum which develops from the culture of the community and equips students with the knowledge, skills and attitudes required to be productive members of their communities, participate in economic growth and to meet the manpower needs of the country.

The Division has the following specific strategic objectives:

- (a) To facilitate the development of community based elementary curriculum;
- (b) To complete the development of the primary and secondary curriculum;
- (c) To encourage and facilitate the further development of school-based curriculum;
- (d) To develop a standards monitoring mechanism to replace the Standards Monitoring Project;
- (e) To develop a mechanism for the assessment of practical subjects;
- (f) To enhance the writing, production, procurement and distribution capacity of CDD;
- (g) To improve the materials distribution network;
- (h) To make use of resources made available through the World Bank Project; and

¹⁵ Ibid, pages 48 - 50.

(i) To incorporate new policy directions into the curriculum at all levels.

(3) Responsibilities of Teacher Education and Staff Development Division (TE&SDD)¹⁶

The TE&SDD plays two important roles:

- (a) The role of Teacher Education is to provide appropriately trained teachers to satisfy the requirements of the education system; and
- (b) The role of Staff Development is to provide continuing professional development for teachers and education officers.

Teacher education programs will provide an adequate supply of well trained, innovative and self reliant teachers committed to the education of individual children, and to their own professional development. They will be equipped to teach in all grades in their sector of education with specialisation where required.

The Division has the following strategic objectives:

- (a) To provide for the continuing implementation of the elementary teacher education program;
- (b) To develop further articulation between the Primary Teachers' Colleges and the University of Goroka;
- (c) To identify further sources for the supply of secondary school teachers;
- (d) To develop pre-service courses for male vocational centre instructors;
- (e) To identify further providers for the training of technical college lecturers; and
- (f) To increase female participation in teacher education programs.

(4) Responsibilities of Inspections and Guidance Division (IGD)¹⁷

Inspectors provide the school level supervision and teacher assessment at elementary (currently being developed), primary and secondary levels. They monitor curriculum implementation for the approval of student certification, offer advice for institutional support and teachers' professional development and carry out teacher appraisal for registration and promotion purposes. Guidance officers work in the high/secondary school system and support teachers in their counselling duties. They also assist in primary schools with counselling services.

The IGD is unique within the Department of Education in that nearly all positions are occupied by field officers based in provincial and district locations.

The vision of the Division is the development of systems to provide and improve appropriate quality, advisory, inspection and guidance services for the school system. It

¹⁶ Ibid, pages 51 - 52.

¹⁷ Ibid, pages 53 - 54.

is envisaged that within the next four years, strategies to institutionalise advisory, counselling, supervisory and appraisal roles are implemented by the schools. The Division has the following strategic objectives:

- (a) To provide for school based appraisal, involving head teachers and teacher, at all levels of the system, as recommended in recent reports on the inspectorate;
- (b) To develop a system for the appraisal of elementary school teachers;
- (c) To provide career opportunities and better conditions for inspectors to avoid the present high turnover of inspectors;
- (d) To examine the need for a separate inspectorate and guidance service for CODE;
- (e) To accelerate the capacity building program for inspectors;
- (f) To examine the scope of the reporting functions of the inspectorate to ensure that all divisions receive timely advice on issues which need specific follow-up;
- (g) To increase the number of guidance officers in order to train school-based counsellors and provide better counselling services;
- (h) To develop Aptitude Test for Grades 9 and 11;
- (i) To review career guidance policy and practices in light of the new structure and to upgrade the capacity of the service to cater for lower and upper secondary grades; and
- (j) To increase the number of female inspectors and guidance officer.

(5) **Responsibilities of Planning, Management and Monitoring Division**¹⁸

The vision of the Division is the development of relevant and appropriate policies and systems managed by suitably trained and experienced personnel at all levels to ensure the efficient planning and management of the education system.

The Resource Management System and Program Budgeting will remain the major instruments for planning, financing and implementation of education programs. The implementation of the education reforms must be within limits of the Education Act, Teaching Service Act and the Organic Law on Provincial and Local Level Governments.

The responsibility for management-related activities is distribution between communities, district and local level governments, provincial governments and the Department of Education.

(a) The communities are responsible for:

¹⁸ Ibid, pages 55 - 58.

- (i) ensuring that local-level government plans and budgets are consistent with provincial plans; and
- (ii) developing and implementing annual plans for elementary and primary schools in conjunction with School Board of Management.
- (b) The district and local level governments are responsible for:
 - (i) ensuring that the Joint District Planning and Budget Priorities Committee budgets for education at the local level government;
 - (ii) planning for the establishment of elementary and primary schools; and
 - (iii) budgeting for the organisational infrastructure for elementary and primary schools.
- (c) The provincial governments are responsible for:
 - (i) preparing provincial education plans;
 - (ii) ensuring that the Joint Provincial Planning and Budget Priorities Committee budgets for education across the province; and
 - (iii) developing and implementing annual maintenance plans in conjunction with Boards of Governors for all post primary Institutions.
- (d) The Department of Education (DOE) is responsible for:
 - (i) formulating education policy and prepares the National Education Plan for all levels of the system;
 - (ii) mobilising donor assistance; and
 - (iii) providing planning and professional support to provinces, districts, districts and local level government.

The Division has the following strategic objectives:

- (a) Implement cost-effectiveness measures as recommended in the Cost-Effectiveness Study;
- (b) Strengthen management skills of line DOE and provincial divisions and local level education managers;
- (c) Further strengthen the planning capacity at the national, provincial and local levels;
- (d) Establish a strategic regional planning and management structure which will provide further scope for Regional Management and Planning Advisers (RMPAs) to support provinces and districts and to provide coordinated linkages within the central planning process;
- (e) Ensure provinces undertake regular reviews of implementation schedules (annual) and education plans (at least every 3 years);
- (f) Expand the scope of the community awareness program, giving particular emphasis to the need to relate development to agreed plans;

- (g) Further develop the management information system;
- (h) Provide decision makers with reliable and timely data on which to base appropriate planning and management decisions;
- (i) Maintain and update key education indicators for different levels of the system;
- (j) Assist DOE and provincial divisions to implement education programs and projects aimed at improving performance on education indicators;
- (k) Monitor and evaluate the plans and activities of line DOE Divisions, within the context of the DOE Corporate Plan and report on the use of resources, including staffing, in seeking to meet approved objectives, biannually;
- (I) Strengthen the personnel management capacity and system of DOE; and
- (m) Undertake a comprehensive audit of the composition and distribution of the teaching service.

3.1.2. Office of Higher Education

(1) Mission

The mission of the OHE is:

- (a) To advise the Minister on higher education policies;
- (b) To coordinate the development and expansion of higher education programs in accordance with the objectives of the National Higher Education Plan; and
- (c) To coordinate higher education resource planning activities.

(2) Responsibilities

The OHE currently has the following national responsibilities:

- (a) Policy Development, Implementation and Evaluation;
- (b) Institutional Finance;
- (c) Scholarships and Human Resource; and
- (d) Institutional Development.

The OHE provides advice on higher education resource requirements and proposes policies consistent with the social and economic developments of PNG. It also coordinates higher education programs, institutional developments and budgets of higher education institutions, and recommends to Government the appropriate operational funding levels. It is also responsible for managing the TESAS which replaced the old National Scholarship Scheme.

3.2 Provincial and Local Level Governments

There are Provincial Educational Boards in all the provinces. These Boards are responsible for all education matters except for higher education, in a particular province. It is assumed that the District Education Administration will be responsible for all basic education in a district. Provincial administration will be responsible for all secondary education. The responsibilities of province and local level governments in the implementation of the education reforms are outlined in appropriate parts of Sections 3.3 (lower education) and 3.4 (further education), respectively.

3.3 Lower Education

3.3.1 Elementary Education¹⁹

(1) Policies

The objective of elementary education is to improve literacy skills and cultural bonding through an appropriate community-based integrated curriculum. The priority issues of low enrolment, poor retention, and inequality of access to education are being addressed through the establishment of community-based elementary schools with the aim of universal access.

The following policies are being implemented:

- (a) Elementary schools will consist of a Preparatory grade, Elementary Grade 1 and Elementary Grade 2;
- (b) Entry will be for children of six years of age and will be on an annual basis;
- (c) The language of instruction in elementary schools will be that which the children speak and as determined by the community;
- (d) The duration of the school day will be for four hours;
- (e) The curriculum will be based on needs and appropriateness for that level, the local environment and local culture;
- (f) Implementation will be a responsibility shared between communities, different levels of government, non-government organisations, provincial education divisions, and the DOE; and
- (g) Elementary schools will be feeder schools for primary schools, within designated clusters.

¹⁹ Ibid, pages 11 - 20.

(2) Responsibilities and Strategies

The phased implementation of elementary education is based on the following distribution of responsibilities and strategies:

- (a) The community is responsible for:
 - forming a community-based Board of Management (BOM) that is required to organise regular Parents and Citizens days to plan and organise awareness and build, supply and maintain school classrooms and facilities;
 - (ii) providing suitable land for the establishment of elementary schools.
 - (iii) constructing and maintaining school buildings;
 - (iv) identifying suitable community volunteers to participate in the development of the local vernacular curriculum to ensure sensitivity to the local culture, and give recognition to the wishes of the community which it serves; and
 - (v) nominating teachers for their elementary schools.
- (b) The local-level governments and the district administrations are responsible for:
 - (i) developing and producing curriculum materials at the provincial and local levels, with the help of district and provincial trainers, and technical assistance teams.
 - providing support to communities for the development of elementary schools.
- (c) The provincial governments, through the provincial education division (PED), are responsible for:
 - (i) planning for the establishment of elementary schools;
 - (ii) implementing all approved teacher training courses, with a provincial training team, consisting of the provincial elementary coordinator and teacher trainers;
 - (iii) budgeting for teachers' emoluments;
 - (iv) ensuring the cost effective deployment of teachers (the recommended class grouping is 30); and
 - (v) teachers are trained to teach all grades (multi-grade teaching) within the elementary school.
- (d) The DOE is responsible for:
 - (i) establishing policies for elementary education;
 - developing the elementary curriculum framework;
 - (iii) designing, developing and coordinating the delivery of the elementary teacher training course;
 - (iv) designing and developing elementary handbooks for BOM and head teachers;
 - (v) providing planning and professional services for the maintenance of standards;
 - (vi) the registration of schools and teachers; and

- (vii) sourcing external assistance for elementary infrastructure and curriculum material support, where appropriate.
- (e) The Teaching Service Commission (TSC) is responsible for the appointment, salaries and conditions of employment of teachers.

(3) Emerging Issues

During the period of implementation a number of critical issues have emerged. The main issues include: access, teachers and teacher education, curriculum, teaching materials, infrastructure, and management. The emerging issues, required action, responsible parties and timeframe for elementary education are outlined in Table 6, Annex - 3.

The actual, revised and NEP projected elementary enrolments for 1995 - 2004 are shown in Tables 11 and 12, Annex - 4. The Elementary 1 enrolments will increase while the Grade 1 enrolments in primary and community schools will decrease in this period. The teacher supply and demand for elementary schools for 1995 - 2004 is shown in Table 13, Annex - 4. There will be 15,896 teachers for the elementary system in 2004. A summary of 1999 student enrolments and number of teachers for elementary education is provided in Table 22, Annex - 7.

3.3.2 Primary Education²⁰

(1) Policies

The following policies are being implemented:

- (a) Primary education will begin at Grade 3 and finish in Grade 8, catering for the 9 to 14 years age group;
- (b) All children will have the opportunity to complete nine years of basic education (Universal Basic Education (UBE));
- (c) Developments at the primary level will focus on the removal of Grades 1 and 2, the establishment of Grades 7 and 8, retention and the rehabilitation of primary school infrastructure; and
- (d) The curriculum will emphasis the strengthening of standards and the child's social, cultural, spiritual, ethical, moral and vocational education.

(2) **Responsibilities and Strategies**

The phased implementation of reforms for the primary cycle is based on the following distribution of responsibilities and strategies:

(a) The community is responsible for establishing a community based BOM responsible for:

²⁰ Ibid, pages 21 - 29.

- (i) organising regular Parents and Citizens days and to plan for, and contribute to, the construction and maintenance of school classrooms and facilities;
- (ii) the security of school facilities, the maintenance of an inventory of facilities, materials and equipment;
- (iii) the good governance of the institution;
- (iv) assisting the district and provincial planners in decisions regarding appropriate clustering arrangements; and
- (v) managing funds in accordance with the Public Finance Management Act.
- (b) The local-level governments and the district administrations are responsible for:
 - (i) ensuring that schools maintain an inventory for all facilities, equipment and materials;
 - (ii) contributing towards the construction and maintenance of school classrooms and facilities;
 - (iii) assisting and facilitating cluster and district based staff development activities; and
 - (iv) assisting and developing central primary schools as resource centres for the cluster of elementary and feeder primary schools.
- (c) The Provincial Governments, through the Provincial Division of Education, are responsible for:
 - (i) planning, in consultation with districts, for the establishment of new Grade 7 classes in conjunction with plans for the clustering of elementary schools and in accordance with national policy guideline:
 - (ii) planning for the flow of students from the lower to upper primary levels through effective consolidation of classes;
 - (iii) appointing teachers; and
 - (iv) budgeting for teacher emoluments, capital works, maintenance, rehabilitation of facilities and other operational costs.
- (d) The DOE is responsible for:
 - (i) establishing policies for primary schooling;
 - (ii) developing a relevant primary curriculum;
 - (iii) providing pre-service and in-service training of teachers;
 - (iv) providing planning and professional services for the improvement of standards; and
 - (v) sourcing external assistance for primary infrastructure and curriculum materials, where appropriate.
- (e) The TSC is responsible for the appointment, salaries and conditions of employment of teachers.

(3) Emerging Issues

During the period of implementation a number of critical issues have emerged and the main ones include: access, teachers and teacher education, curriculum, examinations,

teaching materials, infrastructure, and management. The issues, required action, responsible parties and timeframe for primary education are outlined in Table 7, Annex - 3.

The actual and revised projected primary enrolments against NEP projections for 1995 - 2004 are shown in Tables 14, 15 and 16 in Annex - 5. The Grade 7 enrolments under the reform system will increase to 60,000 in 2004 while Grade 7 enrolments in High Schools will decrease to 6,000 in 2004. The teacher supply and demand for 1995 - 2004 is shown in Table 17 in Annex - 5. The number of teachers will increase by about 3,000 in 2004. A summary of 1999 student enrolments and number of teachers for primary education is provided in Table 23, Annex - 7.

3.3.3 Secondary Education²¹

(1) **Policies**

The following policies for secondary education are being implemented:

- (a) Secondary schools cover Grades 9 to 12;
- (b) Relocate Grades 7 and 8 to the primary schools and utilizing the facilities and thus free up places for extra Grade 9 and 10 classes and, in certain selected schools, Grade 9 to 12 classes;
- (c) Phasing out of Grades 7 and 8 from secondary schools will continue during this planning period;
- (d) Develop the vocational secondary school system within the lower secondary level. These changes will allow the progressive increase in access of Grade 8 leavers to secondary education;
- (e) Achieve (and maintain) a 50% transition rate between primary and secondary education;
- (f) Achieve (and maintain) an 25% transition rate between Grades 10 and 11; and
- (g) Establish an additional secondary school in each province to offer Grades 9 to 12, depending on demand and capacity.

(2) Responsibilities and Strategies

The phased implementation of reforms for the secondary education is based on the following distribution of responsibilities and strategies:

- (a) The community is responsible for forming a Board of Governors (BOG) that is required:
 - (i) to organise the maintenance of school classrooms and facilities;
 - (ii) to keep an inventory of facilities, materials and equipment; and

²¹ Ibid, pages 30 - 37.

- (iii) to recommend appointments to the Provincial Education Board.
- (b) Provincial and district authorities, through the PED, are responsible for:
 - (i) increasing opportunities for access to Grades 9 and 10, through the relocation of Grades 7 and 8 to primary schools, to meet planned targets;
 - (ii) appointing teachers;
 - (iii) budgeting for teacher emoluments, capital works, maintenance, rehabilitation of facilities and other operational costs;
 - (iv) developing an annual maintenance plan in conjunction with the BOG; and
 - (v) managing funds in accordance with the Public Finance Management Act.
- (c) The DOE is responsible for:
 - (i) establishing policies for secondary education;
 - (ii) upgrading qualifications of teachers and improving pre-service and in-service training utilising mixed methods of delivery, including distance education;
 - (iii) improving management and delivery capabilities at central and provincial levels;
 - (iv) improving coordination and support services;
 - (v) providing planning and professional services for the improvement of standards; and
 - (vi) sourcing external assistance for secondary infrastructure, materials and equipment.
- (d) The TSC is responsible for the appointment, salaries and conditions of employment of teachers.

(3) Emerging Issues

During the period of implementation a number of critical issues have emerged and the major ones are concerned with access, availability of teachers, curriculum, teaching materials, infrastructure and management of schools. The emerging issues, required action, responsible parties and timeframe for secondary education are outlined in Table 8, Annex - 3.

The actual and projected secondary enrolments from 1995 to 2004 are shown in Tables 18 and 19 in Annex - 6. Grade 9 enrolments will reach 36,000 by 2004 while Grade 10 enrolments will reach 5,000 by 2004. The number of Grade 11 classes will increase by a factor of 4 in this period (Table 20, Annex - 6). The number of teachers will reach 3,700 by 2004 as shown in Table 21, Annex - 6. A summary of 1999 student enrolments and number of teachers for secondary education is provided in Table 24, Annex - 7.

3.3.4 Vocational Education²²

(1) Overview

Vocational education will become a post Grade 8 program designed to provide students with vocational skills for community development and to meet employment opportunities where they exist in a province. The system will still provide opportunities for others, of whatever education level, to enrol on short courses.

This basic aim of the system is to give status to vocational education and training. This will be pursued through an upgrading of 'traditional' style Vocational Centres (VCs) including an improvement in curriculum and teaching standards, the development of further VCs, offering competency-based training leading to formal accreditation, and the establishment of Vocational Secondary Schools (VSSs). The system will allow for articulation to other forms of training, and also for centres to offer extension services and short courses.

Vocational education is now under the umbrella of the Division of Technical Vocational Education and Training (TVET). However, it remains firmly a provincial responsibility in terms of staffing, infrastructure, materials and equipment provision. The Division will provide technical support in areas of curriculum development, inspections and coordination. The TVET Corporate Plan was produced in 1999.

(2) Policies

Legislative changes provide for nationally accredited subjects. Selection for further training will be based on skills testing.

(3) **Responsibilities and Strategies**

In order to implement the Vocational Centre proposals the following strategies will be undertaken:

- (a) The community is expected to establish a Board of Management (BOM) responsible for:
 - (i) for organising the maintenance of centre classrooms, workshops and other facilities;
 - (ii) the upkeep of an inventory of facilities, materials and equipment; and
 - (iii) recommending appointments to the Provincial Education Board (PEB).
- (4) The provinces, through the PEDs, are responsible for:
 - (i) maintenance of enrolment levels;
 - (ii) planning for the rationalisation and upgrading of existing institutions;
 - (iii) appointment of teachers;
 - (iv) budgeting for teacher emoluments, capital works, maintenance, rehabilitation of facilities and other operational costs;

²² Ibid, pages 38 - 41.

- (v) developing annual maintenance plans in conjunction with the BOM; and
- (vi) developing relevant and appropriate locally-based curriculum.
- (5) The DOE is responsible for:
 - (i) establishing policies for vocational education;
 - (ii) securing external assistance for vocational centre infrastructure, materials and equipment;
 - (iii) vocational Centre instructors education, through the Teacher Education and Staff Development Division;
 - (iv) developing relevant curricula and support for the development and accreditation of locally produced curricula;
 - (v) improving management and delivery capabilities at central, provincial and institution levels;
 - (vi) improving coordination and support services;
 - (vii) providing inspectorial support for both advisory and appraisal purposes; and
 - (viii) providing planning and professional services for the improvement of standards.

(4) Strategic Objectives

The DOE aims to provide a system of post primary level vocational education which will incorporate the following objectives:

- (a) Development of programs to cater for a variety of needs, including extension courses to meet local and community requirements;
- (b) Upgrading of courses in certain centres, to be redesignated as VSSs, to be equivalent to Grades 9 and 10;
- (c) Establishment of trade testing and certification system;
- (d) Increased female participation;
- (e) Development of a culture of self reliance;
- (f) Involvement of industry in program planning and teaching; and
- (g) Rehabilitation, reconstruction and equipping of existing centres.

(5) Emerging Issues

During the period of implementation a number of critical issues have emerged and the major ones are concerned with access, staff:student ratio, curriculum, teacher education for instructors, teaching materials, infrastructure and management of the Vocational Centres. The emerging issues, required action, responsible parties and timeframe for vocational education are outlined in Table 9, Annex - 3.

A summary of 1999 student enrolments and number of teachers for vocational education is provided in Table 25, Annex - 7. About 26% of these were female students.

3.4 Further Education

Further education is defined as tertiary programs post Grade 10 or 12 which lead to a qualification not accredited or recognized by a university. Tertiary colleges which offering further education programs include Primary Teachers, Technical, Business, Nursing, Agriculture, Paramedical, Maritime and Fisheries Colleges. However, some of these programs are internationally accredited such as the certificate program offered at the Maritime College which comes under the Ministry of Transport. Other tertiary colleges like Nursing and Maritime Colleges under other Government Agencies are not considered in this section.

There has been discussions on the issue of merging the training colleges under one entity for better management and utilisation of scarce resources. However, little progress has been achieved because of the fragmented nature of further education institutions in PNG.

3.4.1 Primary Teacher Education

(1) Vision

The vision of Primary Teachers' Colleges (PTCs) is to produce competent teachers for the primary schools.

(2) **Objectives**

The objectives of primary teacher education are to:

- (a) Prepare teachers for entry into the teaching service at the primary school level;
- (b) Provide access to degree programs and articulation opportunities to other higher level courses at the UOG; and
- (c) Produce teachers who are able to adapt to living in difficult remote communities in PNG.

(3) Programs

All the PTCs offer a diploma in teaching which is a prerequisite for entering the teaching service at the primary school level. The Colleges now require Grade 12 School Leavers to enroll in the diploma course. The curriculum taught in the colleges is the responsibility of the Teacher Education and Staff Development Division in the DOE.

There are nine PTCs in PNG, namely: Holy Trinity - Mount Hagen (Western Highlands); St Benedict - Wewak (East Sepik); OLSH - Kabaleo (East New Britain); Balob – Lae (Morobe); Madang – Madang; St Paul's Vunakanau (East New Britain); Gaulim (East New Britain); Dauli - Tari (Southern Highlands) and PNG Education Institute Port Moresby, NCDC. The remoteness of most of these colleges helps prepare college graduates of their future work environment.

The DOE administers Madang Teachers College for training primary school teachers. Other Teachers' Colleges are administered by the Churches but under a unique arrangement where the State meets the salary costs of the teaching staff. The Churches provide financial support for maintenance of these college facilities.

The DOE upgraded the Port Moresby Teachers In-service College to PNG Education Institution. This Institution continues to train trainers of elementary school teachers, vocational centre instructors and other relevant education programs.

A summary of student enrolments and number of teachers for Primary Teachers' Colleges is provided in Table 26, Annex - 7. It should be noted that 49% were female students.

(4) Strategies

The DOE has proposed to develop further articulation between the PTCs and the University of Goroka, for further improving and maintaining the quality of college programs.

3.4.2. Technical/Business Education²³

(1) Vision

The vision of Technical Education and Training is to provide demand driven broad based technical and vocational education and training that meets National Competency Standards and the needs of the community, government, commerce and industry.

(2) Objectives

Technical education is designed for skills training of vocational personnel in technical areas at post secondary and the provision of further opportunities for those already in the workforce.

The objectives of technical education are to:

- (d) prepare students for entry into the work force;
- (e) provide access to technician and Diploma programs and articulation opportunities to other higher level courses; and
- (f) provide self-employment opportunities;
- (g) establish two-way communication between the Ministry of Labour and Employment, industry and commerce, to provide relevant programs and enhance employment opportunities in the community.

²³ Ministry of Education, 1999. National Education Plan, 1995 - 2004: Update Number I. Department of Education, Port Moresby, pages 41 - 43.

(3) **Programs**

Technical education is firmly biased towards meeting the needs of industry and commerce. The following courses are being offered:

- (a) A two year Technical Training Certificate program. This replaces the one year Pre Employment Technical Training (PETT) course. These will be offered in various trade areas and provide the basic skills necessary for students to gain formal employment in industry and commerce. These are broad based, multi-skilled courses;
- (b) Extension courses for apprentices in blocks of eight weeks over two or three year periods;
- (c) Diploma courses conducted in blocks of twenty weeks, over a four year period, with a certificate issued on completion; and
- (d) Special courses provided on demand by industrial, commercial and community organisations with special training requirements.

(4) Strategies

In order to achieve the vision and objectives of Technical Education the following strategies will be undertaken to:

- (a) Increase the number and skills of technical and vocational personnel in technological areas, by teaching adaptable, broad-based, analytical and creative skills;
- (b) Increase female participation;
- (c) Increase the quality and standards of technical education;
- (d) Incorporate industry in program planning and teaching;
- (e) Modernize and improve teaching and training facilities;
- (f) Provide inspectoral support for both advisory and appraisal purposes;
- (g) Develop Competency Based Training and Assessment curricula; and
- (h) Develop programs to cater for a variety of needs, including the combining of entrepreneurial training with skills training. Such skills training will include managerial technology and developing and handling new materials and inorganic compounds.

(5) Emerging Issue

During the period of implementation a number of critical issues have emerged and the main ones are concerned with access and staff:student ratio, curriculum, teacher education for instructors, teaching materials, infrastructure and management of the

Technical Colleges. The emerging issues, required action, responsible agencies and timeframe for technical education are outlined in Table 10, Annex - 3.

A summary of 1999 student enrolments and number of teachers for technical and business colleges is provided in Table 26, Annex -7. Female students made up 25% of the enrolments.

3.5 Higher Education

Higher Education is defined as all post Grade 12 education programs which lead to a college or university certificate, diploma or degree. Only the state funded universities are included in this section. The Divine Word University and the Pacific Adventist University are private universities.

The major objective of university programs is to produce well educated and trained persons with specialised knowledge and skills ready to join the workforce and actively participate in the socio-economic development of PNG. All countries need highly trained human resource to strengthen their international competitiveness in the areas of commerce and industry.

A summary of student enrolments in the state universities is provided in Table 27, Annex - 7. The majority (78%) of the students benefit from TESAS while 11% are self sponsored students. The latter group proportion may increase with time as the number Grade 12 School Leavers increase each year.

3.5.1 The University of Papua New Guinea (UPNG)

The UPNG has two campuses:

- (a) Waigani Campus Undergraduate and postgraduate courses are offered in the schools of: Humanities, Social Sciences, Law and Business Studies, Natural and Physical Science. Adult matriculation course are also offered in the distance education mode.
- (b) Taurama Campus Undergraduate and postgraduate courses are offered in the school of Medicine and Health Sciences.

This University was one of the first higher education institutions established in PNG. There has been a decline in the overall quality of academic programs offered and other general services provided over the years. Strong institutional leadership is required to address outstanding management issues at the University.

3.5.2 The PNG University of Technology (UOT)

The UOT has three campuses:

- (a) Taraka and Bulolo Campuses Undergraduate and postgraduate courses are offered in the areas of: Engineering, Natural Resources, Industrial Technology, Business Studies and Communication Studies.
- (b) Bumbu Campus (also known as the Forest and Timber Training College) - PETT courses are provided in the fields of: forest harvesting techniques,

sawmill operations, saw doctoring, timber yard management and furniture making. These are PETT programs provided under the leadership of the college and the University.

This University was originally established as an Institute of Higher Technical Education and later upgraded to a university. Like UPNG, UOT has similar institutional management problems which require decisive leadership to address in the long term.

3.5.3 The University of Goroka (UOG)

The UOG has a campus at Goroka and its focus is on education programs. There is a need for the University to seriously consider offering its undergraduate education programs in the distance education mode to the address the professional development needs of the teachers in the workforce at the provincial and district levels.

There is a critical need for the UOG, DOE and the Churches to seriously address the rationalisation of all teacher education programs in PNG and the current situation regarding the management of providers of teacher education.

3.5.4 The University of Vudal (UOV)

The UOV has a campus at Vudal and its focus is on Tropical Agriculture. The major objective of the University is to produce graduates, conduct research and undertake community extension programs of a high standard, with a special emphasis on producing competent professionals in their particular disciplines.

There is an urgent need to rationalise the agriculture courses offered at UOT and UOV. The UOV should concentrate on agriculture education of PNG while UOT concentrates on the other existing academic programs.

An agreement was reached between OHE, Department of Agriculture and Livestock (DAL) and the University to transfer the Popondetta Agricultural College to UOV in 1999. This agreement was reached on the understanding that funds for the College under DAL were transferred to UOV at the time of the transfer.

3.5.5 Major Higher Education Issues

The major higher education issues have been extensively discussed in the White Paper on Higher Education, Research, Science and Technology. From an operational perspective, the state universities are still struggling to survive since the severe budget cuts in 1999. The National Higher Education Plan II, 2000-2004 is designed to address the critical issues affecting the advancement of the higher education subsector.

The major issues of concern are as follows:

(a) Training of sufficient Papua New Guineans at the Masters and Doctoral level for performing academic duties at the universities is progressing fairly slowly since PNG gained independence in 1975. The approach has been to train one citizen staff to replace a non-citizen staff. This has not been a very effective means of localising the expatriates with specialised skills.

- (b) Adequate funding for maintenance of the institutional infrastructure continues to be an important issue. Most buildings at the state universities were constructed during the Australian Administration era. These need to be rehabilitated for the safety of staff and students.
- (c) Adequate funding for the maintenance and upgrading of teaching and research facilities and equipment at these institutions is another issue that needs addressing in order to maintain the quality of educational programs offered at these institutions. The UOT has received assistance from JICA to rehabilitate and upgrade some of its teaching and research equipment. However, additional support is required by the state funded universities to replace old teaching and research equipment.
- (d) Universities continue to manage student accommodation and it does take a lot of time and energy away from their core functions in teaching and research. Student bed-spaces limit the access to university education. The OHE is seeking donor assistance to address this issue on a long term basis.
- (e) There are outstanding land compensation cases involving the HEIs. Recently the landowners of UOG campus demanded the Government pay their land claim award of K2.7 million before the university would be opened for the 2001 academic year.
- (f) Co-ordination of student applications and admissions between the DOE, OHE and the universities needs to be improved. The OHE is in the process of addressing this issue through Donor assistance.
- (g) The CHE and OHE have lacked focused leadership in addressing these critical issues over the last several years. It is essential for CHE and OHE to be more pro-active and aggressive in addressing these issues once the NHEP II is endorsed by the NEC.

3.6 Distance and Informal Education²⁴

3.6.1 Distance Education

(1) Overview

It is becoming apparent that distance education mode may be the only alternative cost effective way of increasing access to education in PNG. Distance education, coupled with flexible delivery methods and information technology is an important way to increase access to secondary, further and higher education. Cost effective means of delivering education beyond UBE is critical under the Education Reform Agenda with limited resources available.

The College of Distance Education (CODE) is the key provider for primary and secondary courses. CODE is based in Port Moresby with centres in all provinces.

²⁴ Ministry of Education, 1999. National Education Plan, 1995 - 2004: Update Number I. Department of Education, Port Moresby, pages 44 - 47.

About 6,500²⁵ new students were enrolled in CODE 1999 and 35% were females. A total of 16,783²⁶ students were enrolled in various CODE subjects in 1999 and 34% were females.

Both UPNG and UOT are also involved in providing matriculation courses. At this stage only a diploma course in Commerce is externalized. However, universities should focus their resources in developing and offering diploma and degree courses. This approach would assist in addressing the limited access to higher education issue. The NHEP II is also supporting this concept in order to address the increased demand in higher education in the next 5 to 10 years. A recent Feasibility Study on Distance Education and Flexible Learning through Electronic Media in PNG²⁷ concluded that Distance Education and Flexible Delivery modes have the potential to expand the higher education system to achieve cost-effective growth in education. There can also be synergies with the primary and lower secondary Distance Education system, which all government planning indicates should incorporate matriculation through Distance Education.

(2) Vision

A distance education structure will provide for the delivery of courses developed by a range of distance education providers. Courses will be offered at secondary, matriculation, college and university levels. These courses will lead to the awards of certificates, diplomas and degrees. Distance education providers must ensure that their courses can be easily articulated into the formal education system.

(3) Policy

Distance education has been endorsed as being the principle means of delivering inservice training for teachers and spreading higher education programs to the wider community. Distance education constitutes part of the DOE providing training and professional development (Section 80, Organic Law on Provincial and Local Level Government, 1995).

(4) Strategic objectives

In order to encourage broad support for distance education in PNG in accordance with social demand, the DOE and OHE will:

- (a) Progressively restructure its curricula and services in line with the restructured school system to concentrate to a greater extent on Grades 11 and 12 while winding back Grade 7 and 8 services;
- (b) Liaise with UPNG and UOT regarding the administration of the existing matriculation programs;

²⁵ Ministry of Education, 1999. 1999 Education Statistics of Papua New Guinea. Department of Education, Table 61.

²⁶ Ibid, Table 62.

²⁷ Moore C, Haihuie S and Kema D. 2000. Feasibility Study on Distance Education and Flexible Learning Through Electronic Media in Papua New Guinea. A Report for the Office of Higher Education, Port Moresby.

- (c) Strengthen the in-country capacity in the CODE and universities for the development and administration of distance education courses through donor funding;
- (d) Develop assessment mechanisms to allow students to qualify for nationally recognized certification;
- (e) Investigate the possibility of establishing a separate inspectorate and guidance service for CODE;
- (f) Ensure that universities focus on developing and delivering undergraduate and postgraduate courses; and
- (g) Seek donor funding for the establishment of the PNG-Ernet to assist in enhancing the quality of distance education programs.

3.6.2 Informal Education²⁸

(1) Overview

Papua New Guinea's population was estimated at more than 3.5 million in 1990. Over 40% were under fifteen years of age, and about 15% were under the age of five. The gender ratio is 109 males to 100 females. As many as 85% of the people live by farming on communally owned land in rural areas. The growth rate is anticipated to average 2.3%, giving a population of 7.4 million by 2010. Approximately 40% of the population will be in the 13-34 age range.

The annual urban population growth rate in the 1970s was 7.0%, although this slowed to 4.5% over the 1980-1990 period. The rapid growth in urban population is creating severe overcrowding, increasing the spread of urban crime and other social problems. The 2000 Population Census will give further information about the current rate of urban drift.

A large population creates competition for resources to meet various social needs, all of which appear urgent and legitimate. It is essential to meet the basic subsistence needs of all our people, remove the sources of social problems, protect the environment, and control excessive population growth. However, these demands must not replace the learning needs of the population.

Literacy, through informal education, has a crucial role to play in Papua New Guinea, where only about three in four children between six and twelve years off age go to school. A much smaller percentage is then able to continue and complete one or more grades of post primary education. Whether it occurs through vocational education, agricultural or health extension programs, adult literacy activities, distance education, or community-based libraries, informal education is a very important part of the effort to meet the learning needs of the majority of Papua New Guineans.

The National Literacy and Awareness Council (NLAC) is responsible for policies and strategies for the development of literacy programs. The National Literacy and

²⁸ Ministry of Education, 1999. National Education Plan, 1995 - 2004: Update Number I. Department of Education, Port Moresby. Pages 45 - 47.

Awareness Secretariat (NLAS) acts as the executive arm of the NLAC. The NLAS requires a greater level of staffing if it is to adequately carry out it's functions.

(2) Vision

Informal education will target school age children who are not in the formal school system, out-of-school youth, adults and second-chance learners, by mobilising the expertise of government agencies and non-government organisations to:

- (a) Improve health and nutrition;
- (b) Develop an interest in literacy and awareness;
- (c) Implement appropriate technology skills for economic development;
- (d) Develop leadership skills for political development;
- (e) Mount communication networks for social development;
- (f) Encourage and support creative activities for spiritual and cultural development; and
- (g) Help people to learn and appreciate the need for the preservation of the environment.

(3) Policies

The basic principle underlying informal education is that programs must be personcentred. This shift means:

- (a) Giving high priority to nurturing and promoting creativity in the personal and collective development of the learners;
- (b) Only supplementing national funding of a local initiative as long as it does not entail a recurrent cost; and
- (c) That Local-level Governments are responsible for self help and tok ples schools.

(4) Strategies

The experiences of non-government organisations in village-level programs have made them experts in many aspects of in-formal education. Government departments as well as non-government organisations will jointly be involved in the planning, implementing, maintaining, and evaluation of in-formal education programs. Programs will include:

- (a) Maximising community planning Goals and design of programs will be determined as much as possible by the community hosting and supporting the programs;
- (b) Promoting community control, responsibility and participation Programs will be community-based and people-centred;

- (c) Developing human and community resources first Training in community resource development will be provided for effective in-formal education programs; and
- (d) Maximising the use of local or community resources Dependence on external assistance will be minimal, and more reliance will be placed on local resources (grants from external agencies will be carefully administered to help local communities develop and achieve their aims).

Specific objectives for literacy and informal education are detailed in the National Literacy Policy 2000²⁹. The policy delineates the responsibilities of different levels of government including the Local-level Governments and Ward Councils. It also stresses the important linkages between literacy and the formal education system, in particular the Vocational Centres and CODE. Provinces are required to produce Provincial Literacy Plans of Action.

4. GOVERNMENT BUDGET AND EXPENDITURE

4.1 Recurrent Budget Appropriations

4.1.1 Department of Education

The summary of expenditure by program structure for DOE from 1998 - 2000 is summarised in Table 28 in Annex - 8. It should be noted that the appropriation for the OHE has been removed for 1999 - 2000 because the OHE became autonomous in 1998.

There are four main programs indicated above. The main program of Pre-Primary, Primary and Secondary received the bulk (84-85%) of the recurrent budget from 1998 to 2000. This was followed by Tertiary (Further) Education (14%, excluding Higher Education), Cultural Services (Library Services) (0.5-0.6%) and Government Archives (0.3-0.4%). There is a need to review budget allocations to the Library and Archives Services.

The recurrent budget summarised by items is shown in Table 29 in Annex - 8 for 1998 to 2000. The personnel emoluments represented 39-42% of the current expenditures from 1998 to 2000. Goods and Services represented 8-9% of the expenditure. Current transfers represent 47-50% of the expenditure. It is disappointing to note that the capital expenditure was very insignificant (less than 1%) and this needs to be addressed in the long term.

The unit cost of the new structure is lower than the traditional structure. However, the increased access at all levels, together with the natural growth due to population increases, will require a substantial expansion of the education budget. Considerable attention has been given to the need to apply cost saving and cost recovery measures to contain overall expenditure by the DOE.

²⁹ Ministry of Education, 2000. National Literacy Policy of Papua New Guinea. Government of Papua New Guinea, Port Moresby.

The following cost saving measures³⁰ have been identified which need to be adopted in the lower education subsector in the long term:

- (a) *Class size:* Class size groupings to be 30 for Elementary, 40 for Primary, 40 for Lower Secondary and 30 for Upper Secondary;
- (b) *Class regrouping:* classes to be regrouped on entry into Grades 3, 6, 9 and 11 to account for student transfers and attrition;
- (c) *Multigrade teaching:* multi grade classes to be an integral part of school planning and teacher allocation. Multigrade teaching be part of teacher upgrading and pre-service;
- (d) *Teacher allocation:* staff to be allocated to schools on the basis of the number of students rather than the number of classes;
- (e) *Teacher deployment:* deployment to be on the basis of agreed national criteria, with the number of teachers being determined annually in advance, and with any additional appointments being made to a province within a given year being subject to central approval;
- (f) *Teacher upgrading:* flexible delivery methods including distance education to be the principal mode for teacher upgrading;
- (g) *Partnerships:* maximising opportunities for all stakeholders at all levels to support the National Education System;
- (h) *Community Participation:* school communities to be encouraged to contribute to the development of infrastructure for schools, particularly at the elementary and primary levels, through the provision of local materials and labour; and
- (i) *Privatisation:* functions that are not part of the Department of Education's core business to be privatised, e.g. printing and distribution of materials.

The following cost recovery measures³¹ which have been applied or are under consideration in terms of national policy or provincial initiatives include:

- (a) Fees for in-service courses;
- (b) Fees for examinations conducted at the end of Grades 6, 8, 10 and 12;
- (c) Project fees in schools;
- (d) The introduction of self reliance projects within schools through the development of life skills relevant and applicable to the area of the school; and

³⁰ Ministry of Education, 1999 National Education Plan, 1995 - 2004: Update Number I. Department of Education, Port Moresby, page 4.

³¹ Ibid, page 4.

(e) Earmarking of a predetermined proportion of revenue base (e.g. provincial tax) for education.

4.1.2 Provincial and Local Level Governments

The education items of the recurrent budgets for provincial governments from 1998 - 2000 is shown in Table 30, Annex - 9. The expenditure items relate to teachers salaries, teachers leave fares and education subsidies. The bulk of the expenditure is for the salaries of teachers. In 1998 and 1999 no budget provisions were made for teachers leave fares. It is hoped that provincial authorities budget for teachers leave fares form 2000 onwards.

4.1.3 Higher Education Institutions

The OHE (Annex - 10) and universities (Annex - 11) are still recovering from the severe cuts in 1999 Budget Appropriations. The budgets of the universities have declined by 30-40% in real terms compared to 1997 budget value. For the period from 1998 to 2000, funding for UPNG increased from 41 to 44%, UOT funding decreased from 43 to 39%, UOG funding increased 8 to 12% and UOV received between 4 and 5% funding.

Overall, the universities received 14% in 1998, 15% in 1999 and 13% in 2000 of the total Education Sector budget. The funding for OHE was between 4 and 5% in 1998 to 2000 of the Education Sector budget. Further education is covered under tertiary education.

4.1.4 Overall Education Recurrent Budget Situation

The 1998 - 2000 budgets for recurrent expenditure on education is estimated at 16 - 18% of the total national government spending. A sectoral overview shows that 78 - 79% was allocated to the lower education (754,000 or more students), 13 - 15% was allocated to the higher education (6,800 or more students) and 3% to the further education (2,400 or more students).

The implementation of the Universal Basic Education (UBE) by the Department of education requires considerable resources which increases the competitiveness of biding for limited national financial resources. It is therefore critical for the higher education subsector to aggressively seek funding on a unit cost basis to justify the investment in higher education.

4.2 Development Budget

4.2.1 Department of Education and Provinces

In 1998 the GoPNG provided less than 5 percent of the development budget. Approximately two-thirds of the overseas component for development for 1998 was sourced from AusAID. This trend continues as GoPNG contributed 3 to 5 % in 1999 and 2000. The GoPNG is expected to increase its contribution to 17% in 2001 and decline to 12% and 1.3% in 2002 and 2003, respectively (Tables 39 and 40 in Annex - 12).

The data from development budgets showed that education development budgets for 1998 - 2000 were K69.3 million, K92.1 million and K119.5, million respectively (Table

41 in Annex - 12). Development budget overview of main programs in Education Department showed that: lower education received an average of 73%, further education received an average of 25% and cultural services received an average of 1.6% from 1998 - 2000, respectively. There should be some reconsideration regarding development funding for library developments in PNG. This area needs immediate attention.

The attainment of UBE and the quality of basic education services required by the nation, strongly indicates that the proportion of funding to both basic education and to technical and vocational skills development training should be increased from current levels. In addition the funds allocated to higher education will be required to relate more closely to skills development for work. The proportion of government budget allocation to the education sector should increase to approximately 20%.

4.2.2 Higher Education Institutions

The data on development budget for 1998 - 2000 indicate that there are only three projects for the higher education institutions (Annexes – 13 and 14). The OHE manages the Higher Education Project (Tables 43 and 44), UPNG oversees Family Planning and Population Project (Tables 45 and 46), UOT oversees certain components of Forestry Human Resource Development Project (Tables 47 and 48), UOG oversees the Development of Secondary Teacher Education (Tables 49 and 50). The Higher Education Project was funded by the Asian Development Bank through a bank loan. It would be more economical for PNG to request for grants rather than loans for supporting human resource development through scholarships. It would make more sense to finance vocational technical training through loan financing. However, the objectives such projects/programs should be clearly linked to income generation activities in the community.

4.2.3 Overall Education Development Budget

The development budget data in Annexes 12,13 and 14 indicates that the Education Sector received K74.41 million in 1998, K102.80 million in 1999, and K125.99 million in 2000 respectively. The DOE received 93% in 1998, 90% in 1999 and 94% in 2000. The universities received 7% in 1998, 10% in 1999 and 2% in 2000. The CHE received 3% in 2000. It is hoped that a more coordinated approach to formulating development budget for the Education Sector be adopted in the future.

It is projected that Education Sector will receive K 484 million in development budget form 2000 - 2004 (Table 39 in Annex - 12).

The data from Table 40 in Annex - 12 shows that projects expenditure can be grouped into capacity building and capital (infrastructure) projects. The proportion of funding over the next 5 years is as follows: 42% for capacity and 58% for capital in 2000, 53% for capacity and 47% for capital in 2001, 46% for capacity and 54% for capital in 2002, 26% for capacity and 74% for capital in 2003; and 2% for capacity and 98% for capital in 2002, 2004. There will be a drastic decrease in funding support for capacity building from 2002 to 2004. This situation should be reviewed in the next few years.

5 DONOR INPUT AND EXPERIENCES

5.1 Donor Input

The donor supported projects in education and training at present are contributing in a significant way to the education sector. Various donors and lenders have their own conditions which PNG must understand and accept. The conditions of the donors and the needs of PNG have changed over the years and there is increasing scrutiny of programs by both donors and PNG as a recipient.

The role and priority of education in the nation's Medium Term Development Strategy (MTDS) 1997 – 2002 ³² is reflected in the NEP 1995 – 2004 and the NHEP II 2000 - 2004. Donor support should continue to support needs identified within education sector, and be consistent with the NEP and the NHEP II, as well as policies presently being developed to address important implementation issues.

Delivery of programs and projects should be consistent with the education structures, the MTDS and the Organic Law on Provincial and Local Level Governments (OLPLLG). In addition, all projects should address the institutional strengthening and capacity building needs required to ensuring sustainability of development after the project intervention ends.

Many agencies report a change from project funding to program or sector funding. This allows a wider, longer term and more coordinated intervention.

5.2 Education Project Priorities

Four major programs in education, linked to the National Development Objectives, are: the Literacy and Information Program, addressed through both the Literacy and Awareness Secretariat and the NEP; the Relevant Education for All Program; and the Education Access and Expansion Program, addressed through the NEP; and the Higher Education Program to be addressed through the NEP and the NHEP II.

The MTDS provides a matrix for the education sector focussing on primary and secondary education with a high priority given to increasing access to students from remote areas and females. There has now been a shift in priority with vocational and technical as the second priority and secondary education as the third priority followed by higher education. The main objective continues to be a significant movement towards achieving Universal Basic Education (UBE). The MTDS seeks improvement in living standards, particularly in the rural areas, through education that leads to better health and builds up skills development to be used for income generation.

The NEP addresses these needs through increased access to initial schooling in the vernacular and, through UBE by the year 2004. The NEP also provides for appropriate changes in curriculum to ensure that the objectives of basic education to Grade 8 are achieved. The NEP provides the strategies and targets for these activities. Consequently many of the current donor projects are targeted to support the provision of basic education.

²² Ministry of National Planning and Monitoring, 1996. *Medium Term Development Strategy*, 1997 - 2002. Government of Papua New Guinea, Port Moresby.

As countries achieve UBE there is a tendency for pressure to build up on the need for greater access to higher levels of education, as well as for better quality education provision. PNG still has a long way to go before basic education can be made available to all children in the nation. However, there is a growing concern for the slow progress on the development of life and employment oriented skills programs, both in-school and out-of-school. These programs will address issues such as underemployment, self-employment and unemployment; and a variety of social ills including alienation, drug abuse, home/peer group issues, the need for skills development in enterprise and rural development. PNG will seek to develop programs to address these needs. The process has begun with the decision to develop a National Skills Development Plan.

PNG seeks to ensure that the higher education sector makes a full contribution to the development needs of the nations. This should include a broadened approach to course provision, rationalisation of provider institutions, more cost-effective staff:student ratios, and a stronger interface with industry and resource development.

The CHE has produced a National Higher Education Plan II, 2000 – 2004 which outlines the vision, policies, strategies and programs of the Higher Education subsector. All donor inputs to higher education subsector should be consistent with the NHEP II. It should be noted that eleven new projects have been identified and are in the pipeline. The summary of these proposed projects have been included in section B subsection 2 (Summary Tables 2.34 (page 86) to 2.44 (page 96)).

5.3 Constraints and Risk Management Factors

With the implementation of the OLPLLG reforms, some uncertainty can be expected regarding functions, responsibilities, funding and accountability at different levels of government. All agreements for education projects/programs between recipients and donors should be confirmed through DOE. It is expected that all interventions will be arranged through the DOE and the Department of National Planning and Monitoring (DNPM), and that suitable agreements will be drawn up between central and provincial agencies.

Where there is a counterpart contribution built into approved project or program design, the DOE and DNPM will make every effort to ensure that the funding is budgeted for and made available at the appropriate level. However, the design phase of the project should seek to minimise the risk impact of any shortfall in counterpart funding.

The nature and processes of project management are often determined by the requirements of the donor. The DOE accepts this constraint, particularly where projects are managed by managing contractors. However it will assist both capacity building and sustainability if, whenever possible, implementation systems adopted should be compatible with the normal financial and management systems of GoPNG. It must also be noted that budget procedures now require program aid to be reflected in the annual budgets

The DOE is aware of the pressure the Education Reform Agenda will place on the people and the institutions. The changing government processes and an economic down-turn are added pressures. The capacity of the nation to absorb the changes under way is a challenge. Donors should assist by assessing the levels of management skills and capacity in education agencies and institutions and develop appropriate

training programs for Papua New Guineans who would sustain the activities initiated under the projects/programs.

The immediate post-project needs and requirements for staffing, funding and maintenance of assets should be fully made known to education agencies at the project design stage. Education agencies and institutions will develop strategies to absorb relevant post-project needs into recurrent and/or institutional budgets.

For projects involving higher education institutions, the OHE will be the lead agency in terms of negotiations in the project design stages. The HEI will be represented in Project Coordinating Groups.

5.4 AusAID Perspective

5.4.1 Priority Areas for Education Support³³

A recent Desk Study found AusAID's PNG education sector program to be consistent with GoA and PNG development goals. Further, projects target the objectives of the PNG education reform agenda. There is little evidence of duplication within AusAID projects.

Donor activity within the education sector has been extensive. The Desk Study observed that there was minimal overlap between projects. This is due, at least in part, to the fact that all donors have been encouraged by DOE to operate within the framework of the Education Reform Agenda. Given the scale of the education system and the extent of the reform agenda, there has been ample scope to accommodate a wide range of donor interests. Also to its credit, the DOE has been particularly diligent in identifying areas of need to match donor interest, in participating in project preparation activities through counterpart involvement, and in appraising draft reports.

The framework, integrates current and proposed AusAID initiatives within the context of the Strategy's three program areas:

- (a) Support for Reform for a Sustainable Education System;
- (b) Support for Universal Basic Education; and
- (c) Support for Further Learning (Education).

The framework highlights the proposed dual focus for capacity building on both national and provincial/district levels. This is intended to reflect the critical role of the provinces in the planning and management of education and in implementing projects, particularly those relating to basic education.

Universal Basic Education accounts for the bulk of AusAID's sector projects being undertaken. Apart from literacy for out-of-school youth and adults, the major areas of need are well covered.

The framework accommodates vocational and technical education and training (VTET), secondary and tertiary within further learning. The need for skills development linked to the formal and informal economies of PNG is well documented in a number of studies, including AusAID, WB, and ADB.

³³ AusAID, 2000. *PNG Education Sector - Report of Desk Study of Current and Future Program.* Australian Agency for International Development, Canberra, pages 24 - 27.

The Desk Study recommended the following:

(a) Reform Support

That AusAID proceed with a feasibility/design study on reform support for the education sector, having particular regard to policy, planning, management, human resource development, co-ordination, finance skills, and systems, at central provincial and district levels.

(b) Universal Basic Education

That subject to DOE interest in the development of support for a National Literacy Project being conveyed to AusAID, a Project Pre-feasibility Study be fielded, with particular attention being given to the National Literacy Survey Report and the National Literacy Policy.

(c) Further Learning (Education)

That the initial focus of AusAID's further support for VTET in PNG be on policy development and capacity building; and

That AusAID provide technical assistance to DOE to support the development of a comprehensive policy framework for VTET.

5.4.2 Limits of AusAID Support³⁴

AusAID's assistance to PNG cannot be expected to address, even partially, all of the areas seen as needing donor assistance. There are a number of other donors who are providing inputs and many of them have particular interest in supporting certain kinds of activities. Some have focused on support for buildings others on high technology inputs. AusAID's program should continue to be tightly focused. In some cases, AusAID's assistance should be conditional on certain criteria being met, while on others there is a clear view that assistance should not be provided or should be cut back from the level available previously.

Particular areas where AusAID assistance should not be given or where it should be conditional are:

- (a) Universities, except where a strategic focus is given on structural reform;
- (b) Office of Higher Education, except where a strategic focus is given on structural reform and improved performance;
- (c) Further Secondary School Scholarships in Australia;
- (d) Most recurrent expenditure;
- (e) Infrastructure, except where the input significantly improves access/equity provision and there is significant community involvement and structured recipient provision for on-going maintenance;

⁴ AusAID, 2000 . Strategy for AusAID Support to the Papua New Guinea Education Sector 2000 – 2010. Australian Agency for International Development, Canberra, page 42.

- (f) High cost, high risk, technologically inappropriate strategies; and
- (g) Private sector activities without clear public benefit.

AusAID should eschew some other activities, but for three quite different reasons:

- (a) Some activities constitute "bad" aid. Examples would include:
 - (i) Funding capital projects in situations where it is apparent that longterm, domestically generated maintenance and operating expenses would not be forthcoming or where they would only be forthcoming at the expense of other priority activities; and
 - (ii) Funding activities not within GoPNG's stated priorities as set out in long-term policy statements such as the MTDS or the National Education Plan.
- (b) Some activities are outside Australia's stated strategic objectives for PNG assistance. Other activities might offend against gender equity or environmental guidelines.
- (c) Some activities may be outside AusAID's of Australia's capacity to implement effectively. Australia's competence, resource base and experience tend to be in "software" rather then "hardware" areas system design, institutional strengthening and assistance with curriculum and training material design as well as with training itself.

5.4.3 Possible Roles of Other Organisations³⁵

Other donors may wish to engage in activities not suitable for AusAID participation but which otherwise might make satisfactory contributions to PNG's development, such as infrastructure projects or high technology aspects of tertiary education. However, increasingly the larger donors, especially the multilaterals, are focusing on issues similar to those in AusAID's strategies. This opens possibilities for fruitful collaboration e.g. with GTZ and ADB in developing vocational training facilities, skills and courses. Some other donors already acknowledge the comparative advantage possessed by Australia as a result of its historic and geographic links to PNG. Rationalising donor responsibilities in appropriate ways by way of response is sensible, so long as satisfactory donor coordination mechanisms prevail. Donor cooperation for these reasons builds a compelling argument for groups of donors to engage collaboratively in separate components of integrated development.