



National Education Plan 2015-2019

Quality learning for all

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Contents

Abbreviations and acronyms	4
Figures and tables.....	4
Message from the Minister for Education	5
Message from the Secretary for Education	6
Executive summary.....	7
Section one Papua New Guinea context	9
Section two Education in Papua New Guinea.....	11
Section three Planning framework.....	20
Section four The plan	23
Section five Monitoring and evaluation	40
Section six Projections and costing.....	51
Section seven Annexes	54
Annex A Complete education	
Annex B Additional data	
Annex C Enrolment projections for 2015–24	
Reference materials	

Figures and tables

Figure 1: The regions and provinces of Papua New Guinea
Figure 2: Total enrolment growth, 2004–14
Figure 3: Enrolment growth by sector, 2004–14
Figure 4: Grade 8 to Grade 9 transition rates, 2004–14
Figure 5: Total government funding of education, 2004–13
Figure 6: Total government funding of education by major costs, 2004–13 (Km)
Figure 7: Education system, 2015
Figure 8: Gender of enrolled students, by sector, 2014
Figure 9: The National Education Plan connections in planning
Figure 10: NEP 2015- 2019 Logic Framework
Figure 11: NEP outputs
Figure 12: NEP outcomes
Figure 13: Proposed 2–6–6 education system structure
Figure 14: Student population by grade, gender and overage percentage, 2014

Table 1: Number of schools operating, 2014
Table 2: Number of students enrolled, 2014
Table 3: Teacher numbers and teacher-pupil ratio, 2014
Table 4: Transition rate, 2014
Table 5: Lead actors in NEP implementation
Table 6: Strategy 6 ideal school infrastructure targets
Table 7: Projected student enrolments
Table 8: Financial projections, 2015–19
Table 9: Proposed 2–6–6 education system structure
Table 10: Number of operating schools, by sector and by province, 2014
Table 11: Student:teacher ratio and teachers per school, by sector and province, 2014
Table 12: Student enrolment by gender and province, 2014
Table 13: Districts without vocational centres, 2014
Table 14: Toilets by sector and gender, 2013
Table 15: Students with special needs per grade, 2013
Table 16: Students with special needs registered with SERC, by grade, 2013

Abbreviations and acronyms

AD	Administration Division, NDoE	NEP	National Education Plan
ALESCO	ALESCO payroll system	NER	Net enrolment ratio
AOFP	Annual Operational Financial Plan	NES	National education system
BOG	Board Of Governors	NTCF	National Teachers Competency Framework
BOM	Board Of Management	NGO	Non-governmental organisation
CDD	Curriculum Development Division, NDoE	NLAS	National Literacy Awareness Secretariat, OLA
CEA	Church Education Agency	NQSSF	National Quality School Standards Framework
DPLGA	Department of Provincial and Local Government Affairs	NSLCF	National School Leadership Competency Framework
DSG	District Support Grant	OLA	Office of Libraries and Archives
ECCE	Early Childhood Care and Education	OOSCI	Out Of School Children Initiative
EFA	Education For All	PaBER	Pacific Benchmarking for Education Results
E-LD	E-Learning Division, NDoE	P&C	Parents and Citizens
EMIS	Education Management Information System	PARI	Papua New Guinea Accessibility Remote Index
FD	Finance Division, NDoE	PayD	Payroll Division, NDoE
FODE	Flexible Open and Distance Learning	PILNA	Pacific Islands Literacy and Numeracy Assessment
GCD	Guidance and Counselling Division, NDoE	PISA	Program for International Student Assessment
GDP	Gross domestic product	PNG	Papua New Guinea
GER	Gross enrolment rate	PPD	Policy and Planning Division, NDoE
GES	General Education Services Division, NDoE	PQEP	Parents for Quality Education Monitors Program
GoPNG	Government of Papua New Guinea	ProD	Procurement Division, NDoE
HIV/AIDS	Human immunodeficiency virus/acquired immune deficiency syndrome	RED	Research and Evaluation Division, NDoE
		SBC	Standards-Based Curriculum
HROD	Human Resources and Organisational Development Division, NDoE	SBE	Standards-Based Education
		SD	Standards Division, NDoE
IA	Internal Audit Division, NDoE	SERC	Special Education Resource Centre
ICT	Information and Communications Technology (Division, NDoE)	SG	Standards and Guidance Division, NDoE
		SLIP	School Learning Improvement Plan
IFMS	Integrated Financial Management System	SO	Standards Officer
Km	Kina million	TED	Teacher Education Division, NDoE
LLG	Local-Level Government	TFF	Tuition Fee Free
MCU	Media and Communications Unit, NDoE	TIMSS	Trends in International Mathematics and Science Study
M&E	Monitoring and evaluation	TSC	Teaching Service Commission
MoE	Ministry of Education	TVET	Technical and Vocational Education and Training
MSD	Measurement Services Division, NDoE	UBE	Universal basic education
NDoE	National Department of Education	WaSH	Water sanitation and hygiene

Message from the Minister for Education

The government's strong commitment to education did not end when the National Education Plan (NEP) 2005–14 expired. That continuing commitment is reflected in this follow-on National Education Plan, which builds on the many successes that we have achieved in education in recent years, as well as learning from our mistakes.

This NEP sets the course for even more initiatives to ensure that all the people of Papua New Guinea have the chance for the education and training that they are entitled to as citizens. All citizens must have a chance to share in the growth and development of our nation — and that requires a well-functioning education system.

The focus of education is often seen as the formal school system, which children enter at a young age before progressing through the grades, preferably to complete a full school career. But the government recognises that the aim of education for all — and a thriving economy and a healthy society — requires as strong a focus on other sectors of education.

In particular, this NEP provides the roadmap for implementing the government's commitment to providing education and training in the technical and vocational skills that are an essential requirement for a successful nation.

The plan also points the way to ensuring that people are given the support needed to learn the basic literacy, numeracy and life skills that they may have never had the chance to acquire, for example. Such skills are a right for all Papua New Guineans.

This plan is ambitious. It shows clearly how the right strategies can lead to the right educational outputs and outcomes and to the ultimate goal of quality learning for all.

Yet a plan is just a plan, unless everyone involved in education acts to implement the strategies to ensure that their fellow citizens can have access to the education and training that they desire. The national government will play its part and will work with all other levels of government and educational institutions. It will also continue to put substantial funding into education, to support schools and other institutions.

Yet the NEP also depends on collaboration at all levels. It sets out clear strategies and responsibilities, for the National Department of Education and for provincial and lower level governments. Our fellow citizens have a right to expect us all to work together to achieve quality learning for all.



Honourable Nick Kuman, MP
Minister for Education

Message from the Secretary for Education

This strategic plan has been produced by the Department of Education, but it is not a plan just for the public servants working in the department's headquarters. It is a plan for everyone who has responsibilities for education in Papua New Guinea.

The plan has been produced after consultations with people and organisations around the country and therefore reflects the reality on the ground. The strategies in the plan take account of the resources and capacities in all parts of the education system and are therefore strategies that we know we can achieve. The government's commitment to education means that we have no excuse for any failure to produce those deliverables.

Partners in education will work together to implement strategies to ensure that we achieve the three outcomes detailed in the NEP: all children and youths having access to a complete quality education; all students achieve learning standards and retention benchmarks; and education systems operating in a timely, proactive and coordinated manner. The three outcomes will result in Quality Learning for All.

The plan recognises that education and training are essential for everyone. The plan therefore puts a strong emphasis on progressing from basic education to a complete education of 14 years, including relevant learning for youth in technical and vocational education, as well as looking towards the establishment of the country's early childhood education sector.

The department will also work closely with and support its partners throughout the country, including the Teaching Service Commission, the Office of Libraries and Archives, provincial and other governments, teachers, schools and parents and communities. All of us must work together for the good of the children and youths of Papua New Guinea.

We must measure our progress towards the quality learning goal and we must all be held to account for our work. An important part of the plan is therefore the monitoring and evaluation system that we will run in parallel with the strategies in the plan. Effective monitoring and evaluation will let us see what is working and what is not and will let us make corrections during the life of the NEP, as well as informing our system decision-making.

I urge you to work with us to make the plan a success by doing your part to implement strategies successfully, for the benefit of everyone in our country.



Dr Michael F. Tapo, EdD
Secretary for Education

Executive summary

Despite tangible progress in education over the past decade, much more remains to be done to improve access, retention, quality, equity and management, to address remaining challenges in education.

The NEP 2015–19 is designed to give everyone in Papua New Guinea, regardless of their ability, gender, or socio-economic background, an opportunity to be educated and to transform their lives, using an holistic, inclusive and integrated approach.

There have been many changes in the country's education system and policies since independence 40 years ago, and the plan is designed build on past successes and experience and to speed up progress towards universal and high-quality education and training.

Following widespread consultation, the NEP is based on a logical planning framework that addresses the problems facing education in Papua New Guinea by establishing six focus areas:

- access and equity
All Papua New Guineans have access to 14 years of education and training. This should be irrespective of economic circumstances, location and gender and in a positive learning environment which is safe and hygienic.
- teachers and teaching
Well-trained and qualified teachers are in place to meet student demand. There should be enough resources, support and accommodation at schools to support quality teaching and learning.
- learning
Relevant curriculum will be in place for learners to acquire skills and knowledge for a happy and healthy life. A learning assessment system will focus on improving learning.
- alternate pathways
Students will be able to choose easy-to-access pathways to attain technical, work and life skills, and move between those and more traditional sectors.
- local management
Schools will be led by strong educational leadership and are well managed to achieve maximum student learning while being accountable to the community. Parents and wider communities are encouraged to actively support schools.
- system strengthening
National, provincial and district systems will improve their planning and operations to support schools to focus on improving student learning. Technology will be used to improve systems and access to information.

For each focus area there are clear strategies in this plan that will be detailed into activities in operational plans to be written by the National Department of Education and all other education partners around the country. The strategies have associated deliverables which will result in clear outputs by 2019, such as more infrastructure and teachers in place and easier access to alternate pathways for the development of work and life skills. All are underpinned by a focus on improving quality.

The outputs are designed to produce three outcomes related to access to education, achievement of learning and effective and efficient operation of the education system. Combined achievement of those outcomes will result in attainment of the ultimate goal; quality learning for all.

All the strategies are achievable and affordable and take account of existing and potential government policies and initiatives. The latter include: the Tuition Fee Free program to enable more children to remain in school; the emphasis on technical and vocational education and training (TVET); improved teacher training; an updated curriculum; infrastructure improvements; e-learning; and a push for 14 years of high-quality education from the age of five, through a proposed revision of the school system to establish a 2–6–6 structure of two years of elementary, six of primary and six of secondary schooling and to remove examination barriers at Grades 8 and 10.

The NEP outlines the responsibilities of different organisations, including divisions of the national Department of Education, for the strategies, as well as the associated timelines. It makes it clear that parents and local communities have important roles to play.

To ensure that the strategies are carried out and to measure their success, the NEP includes a transparent monitoring and evaluation system based on international best-practice. There are realistic and achievable targets, to be measured against the situation at the start of the NEP's five-year period. The measurements will be based on simple indicators and will be verified using the systems indicated, such as the department's Education Management Information System.

It will be important to be flexible over the lifetime of the plan. Therefore, strategies may be modified in the light of experience; including taking advantage of better-than-expected progress towards particular targets and outputs.

Overall, the NEP is also consistent with:

- The Papua New Guinea National Goals and Directive Principles
- International goals, in particular the Millennium Development Goals and the Education For All goals
- Recent government reforms to improve education service delivery
- Community input from provincial consultations
- Stakeholder inputs

The NEP presents a clear and easily-understood path towards quality learning for all.

Section one Papua New Guinea context

Papua New Guinea is one of the world's most ethnically diverse countries. Its population of an estimated 7.3 million speaks more than 850 indigenous languages and is spread across some of the world's most difficult terrain. An estimated 88 per cent of the population lives in rural areas, often isolated with poor communications. The overall literacy rate (literate in at least one language) is 68 per cent, an increase of 11 per cent since the 2000 Census. Tok Pisin shows the highest literacy rate of 57 per cent, followed by local languages Tok Ples at 56 per cent and English at 49 per cent (PNG Census, 2011)

Papua New Guinea comprises the eastern half of New Guinea Island and nearby islands and is the largest country (461,690 km²) in the Pacific region. It has more than 600 islands and the mainland is mostly covered by tropical rain forest and has large mountain ranges. Transport links are poor or non-existent.

Demographically, Papua New Guinea is a young country; 76 per cent of the population is under 35 years old and 35 per cent is under 15. Annual population growth is 3.1 per cent, with the population expected to reach 9 million by the end of the decade.

Papua New Guinea gained independence from Australia in 1975 and is a constitutional monarchy with a parliamentary democracy. Many government functions are devolved to the country's 22 provinces and to lower-levels.

The country is divided into four regions – Highlands, Momase, New Guinea Islands and Southern. The capital is Port Moresby, with a population of about 400,000. The main regional centres are Goroka and Mt. Hagen in the densely populated Highlands Region, the commercial port of Lae in the Momase region, and Kokopo/Rabaul in the New Guinea Islands region (United Nations Development Programme, 2014).

Figure 1: The regions and provinces of Papua New Guinea



Papua New Guinea is a lower- to middle-income country with a GDP of US\$15.41 billion and a per capita income of US\$2,104.9 (World Bank, 2013). It has a formal, corporate sector and a large informal sector where subsistence farming accounts for the bulk of economic activity. The formal sector provides a narrow employment base, consisting of mineral production, some manufacturing, the public sector, and services including finance, construction, transportation, and utilities. It is estimated that 75 per cent of households depend on subsistence agriculture, with 40 per cent of the population living on less than \$1 a day (United Nations Development Programme, 2014).

Papua New Guinea is rich in natural resources (forests, fish, and minerals) and has vast ecosystems hosting a unique biodiversity. Oil and gas, mining and construction activities have allowed the economy to expand strongly in recent years.

The economy was projected to grow by 15.5 per cent in 2015, compared with 8.4 per cent in 2014, driven mainly by a first full calendar year of liquefied natural gas production in the country and overall oil and gas growth of 156 per cent. However, the oil and gas sector was expected to return to negative growth by 2019 as the oil fields are depleted.

The mining and quarrying sector was expected to grow by 12.0 per cent in 2015, but then slow down as the Ok Tedi mine undergoes life extension work, before rebounding towards 2019 as increased mine production begins.

Growth in the non-mining sectors was expected to increase from 1.4 per cent in 2014 to 4 per cent in 2015, partly reflecting preparations for the 2015 Pacific Games and the 2018 Asia Pacific Economic Co-operation meeting. Agriculture was projected to expand by 3.6 per cent in 2015, based on improvements expected in coffee and cocoa growing and the elimination of copra oil production bottlenecks. Manufacturing, wholesaling and retailing and transport, storage and communications were expected to continue to grow in 2015, with electricity, gas and water slowing down.

From 2016 to 2019 the economy was expected to adjust to traditional drivers led by agriculture, fishing and forestry and supported by expansion of the private sector. Inflation was expected to decrease to 5.5 per cent in 2015 from 5.9 per cent in 2014 and then to stabilise at about 5.0 per cent until 2019.

Section two Education in Papua New Guinea

Under the Education Act (1983, consolidated 1995, p9), administration of the national education system is vested in the following authorities:

- The Minister for Education
- The National Education Board (NEB)
- The departmental head (Secretary for Education)
- The Teaching Service Commission (TSC)
- Provincial governments
- Education boards
- Local-Level Governments (LLGs)
- Education agencies
- The governing bodies of member schools

Minister for Education

The minister is the political head responsible for the overall management of education through the Ministry of Education, which comprises the National Department of Education (NDoE), the Office of Libraries and Archives (OLA) and the Teaching Service Commission (TSC).

National Department of Education

Under the Organic Law on Provincial Governments and Local-Level Governments, the NDoE determines national policies and standards and supports their implementation by the provinces with services such as planning, research, training and staff development.

The NDoE is responsible for: teacher education, inspection and registration; the national curriculum; curriculum materials; and examinations. It is also responsible for national institutions, namely teachers colleges, technical colleges, national high schools, special education resource centres, Flexible Open and Distance Education (FODE) centres and schools in the National Capital District.

Office of Library and Archives

The Office of Libraries and Archives (OLA) comprises three divisions: the National Library Service of Papua New Guinea; the National Archives; and Corporate Services. Its major role is to co-ordinate the planning and development of libraries and archives throughout the country. The National Library Service's primary objective is to preserve all documents on Papua New Guinea life and society in the national collection for all Papua New Guineans to enjoy and learn from.

Teaching Service Commission

The Teaching Service Commission (TSC), established by an Act of Parliament, acts as the agent of the state for the employment of teachers. It oversees teachers' terms and conditions of service, salaries, allowances and welfare. It supports the rights of teachers.

The National Education Board

The NEB is the highest education decision-making body in Papua New Guinea, overseeing the development and functioning of the education system and the implementation of the NEP. It advises the minister, in consultation with provincial governments, the TSC and education boards and agencies. The Secretary for Education, as head of the education department, is the statutory Chairman of the NEB.

Departmental head

The head of the Department of Education is the Secretary for Education. The Secretary also chairs the National Education Board.

Provincial governments

Through the provincial and district administrations and provincial education boards, the provinces have responsibility for establishing, building and maintaining schools. The provinces deploy teachers and employ provincial and district education officers.

A provincial education subsidy in the form of Education Function Grants must be spent on operating costs and maintenance, and at least half must be spent on the districts' minimum priority activities. Communities, through schools' governing bodies, share responsibility for infrastructure, including school buildings, teachers' houses and ancillary facilities.

Education boards

The Provincial Education Board (PEB) is the highest education decision-making body in a province. Most provincial boards are headed by a Chairman, who is the Provincial Education Adviser. Powers and functions of the PEBs vary from province to province depending on the powers devolved to them and subject to the capacity of the province.

District Education Boards are an integral part of the administration of education in the districts. Members are stakeholders within the districts. The powers and functions of the boards vary from province to province depending on the powers devolved to them. The National Education Board can veto board decisions

Local-Level Governments

Local-Level Government is the third level of government. It plays a minimal role in education but its responsibilities include the funding and maintenance of elementary and primary schools and helping districts to develop district education plans consistent with provincial education plans.

Education agencies

Education agencies are key partners in the delivery of education services in Papua New Guinea. They include faith-based and private agencies with well-established networks of schools in the provinces in all education sectors.

The agencies may have varied student entry criteria and teacher terms and conditions, but they are entitled to school subsidies from the government. Teachers are paid by the government except those employed by international education agencies.

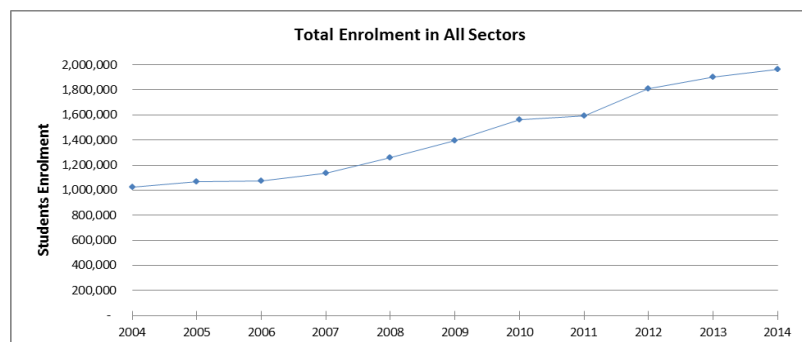
Governing boards of member schools

Governing boards are Boards of Management (BOMs) in elementary and primary schools and Boards of Governors (BOGs) in secondary and other post-primary schools. They are the schools' highest decision-making bodies and have financial and management powers. They also have disciplinary powers but their decisions can be vetoed by the National Education Board.

Progress in education

During Australia's administration, Papua New Guinea adopted that country's education system. Since independence in 1975, the system has undergone major reforms and has grown to more than 11,000 institutions and around 1.9 million pupils who are taught by almost 52,000 teachers in the elementary, primary and post primary sectors (EMIS, NDoE, 2014).

Figure 2: Total enrolment growth, 2004–14



Source: EMIS, NDoE, 2015

An important step towards reforming education was the development of a new philosophy of education outlined in the Matane Report (1983), based on 'integral human development'. This philosophy has permeated and influenced education planning, policy development and practices ever since.

The last 10 years have seen major programs and policies to improve access, retention, quality, equity and education management, although measured and sustained progress has been mixed. Corresponding reforms in governance were introduced and critical financial resources provided, to enable efficient and effective delivery of basic education, resulting in improved education access, retention and quality.

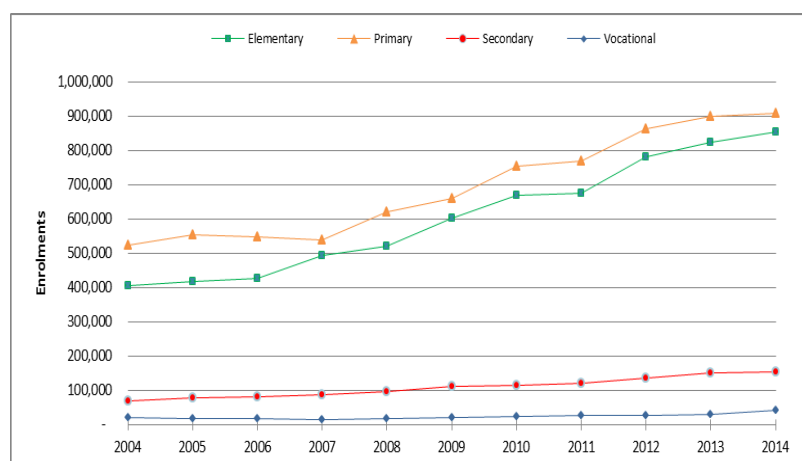
The first national education plan, the NEP 1995–2004, produced a restructuring of the education system and a reform of the curriculum. The NEP 2005–14 aimed to increase access and participation at all levels of education, supporting UNESCO's Education For All (EFA) goal of universal primary education. It also aimed to make the curriculum more relevant to community life, through the introduction of vernacular education and a focus on life skills, and to allow students to pursue a range of post-Grade 8 educational pathways. Despite some successes, significant challenges remain to meet international and national targets.

Development partners, including United Nations and overseas development agencies, supported numerous education programs during the 2005–14 NEP.

The overall gross enrolment rate for basic education improved to 96 per cent in 2014, compared to 71 per cent in 2000. In the secondary sector, the rate improved by 10 per cent from 2000 to 2013. Despite these achievements, significant disparities still exist across the country.

In 2012 the government began to abolish school fees in basic education by the introduction of the Tuition Fee Free (TFF) policy, which also subsidised fees for post-basic education institutions, except the tertiary institutions. The aim of TFF is to increase access to education. Although participation rates in some sectors remain very low, TFF has contributed to increased enrolment, particularly in basic education, with almost 2 million children enrolled in 2014 compared with about 1 million a decade before. The successful increase in enrolment in basic education has led to considerable challenges to ensure continuing access to education for the significantly increased enrolment.

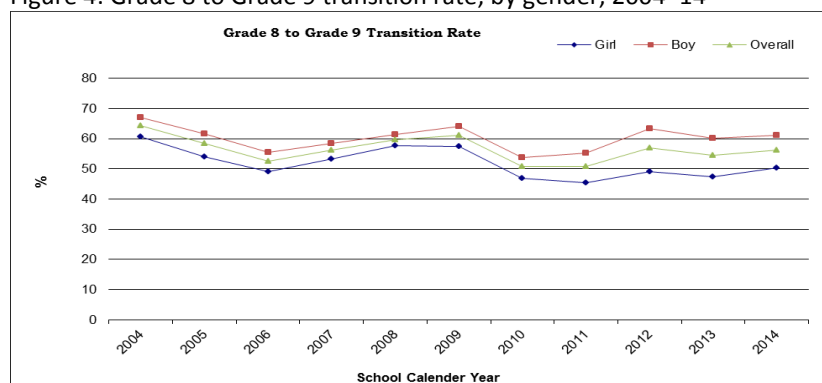
Figure 3: Enrolment growth by sector, 2004–14



Source: EMIS, NDoE, 2015

There is some evidence that girls' participation rates have generally improved over the last 10 years, yet significant barriers need removing to boost girls' access to and participation in education. The rates of children discontinuing school, between initial enrolment and the completion of 12 years of schooling are high, while transition rates following national examinations in Grades 8 and 10 are low. Girls' transition rates at certain points in their education continue to be a concern.

Figure 4: Grade 8 to Grade 9 transition rate, by gender, 2004–14



Source: EMIS, NDoE, 2015

Despite successes, significant challenges remain in meeting international and national targets, including gross enrolment and retention targets. The challenges include the need to expand the system capacity in line with population growth, remoteness, lack of resources, poor coordination between national and sub-national levels, the complexity of the society, the lack of teachers and a sub-standard curriculum.

Papua New Guinea made progress against some of the EFA goals:

EFA Goal 1: Early childhood care and education

Papua New Guinea has a desire to make education available to all children from the age of three, but there is currently no formal early childhood care and education (ECCE) sector; therefore, there are no data available for monitoring progress in ECCE.

EFA Goal 2: Universal basic education

Papua New Guinea exceeded its 2014 targets with considerable increases in the numbers of teachers and schools since 2000.

EFA Goal 3: Learning opportunities for youths and adults and life skills

Access and participation rates improved in the secondary and vocational sectors, although these rates are still very low as a result of a decision to prioritise basic education. There are considerable disparities across provinces, which needs to be addressed. The secondary teacher:pupil ratio is an acceptable 1:31.

EFA Goal 5: Gender parity and equality

Although there is a strong indication that gender disparities are gradually falling, gender gaps still exist in some areas.

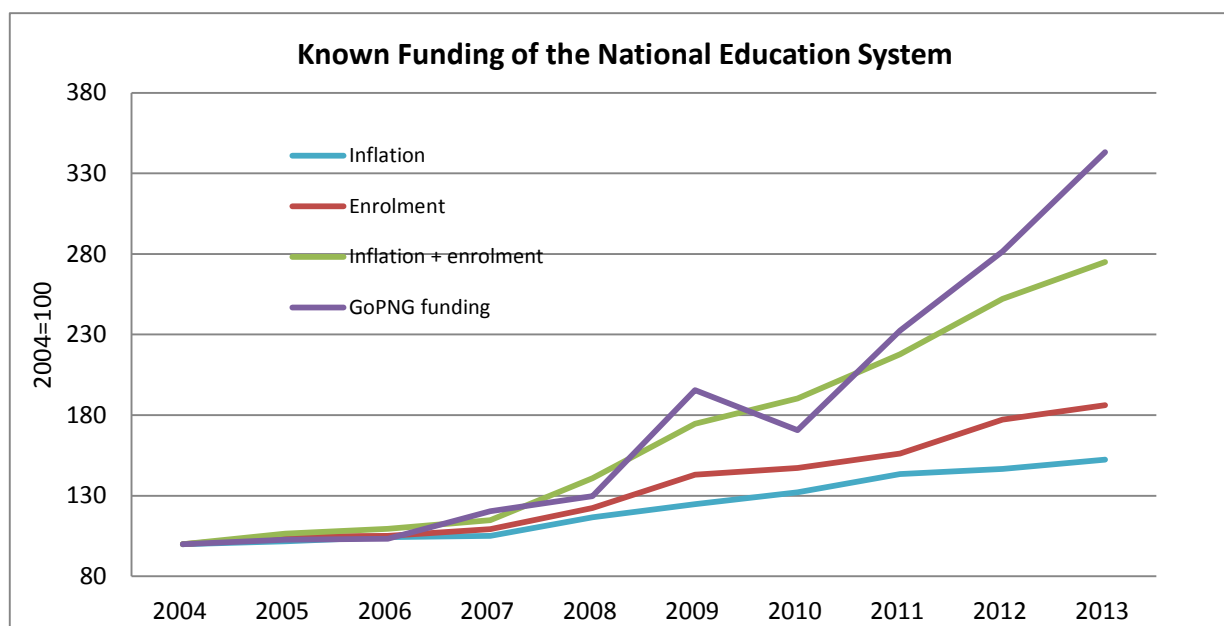
The Higher Education (General Provisions) Act 2014 resulted in the replacement of the Commission for Higher Education and the Office of Higher Education by the Department of Higher Education, Science and Research. The new department is responsible for regulating post-secondary institutions. This may in time include quality assurance in teachers colleges and post-secondary TVET colleges under NDoE control.

Financing education

A 1995 revision of the Organic Law on Provincial Governments and Local-Level Governments resulted in some education responsibilities being rolled out to provinces. Changes were also made in resource allocation, with provincial and local governments being the principle recipients of funds for the provision of education services, enabling them to play a greater role in the provision and management of education.

From 2004 to 2013, education funding by all levels of government (GoPNG) more than tripled, from K653.3m to K2,242.1m¹. The annual funding per student almost doubled, from K640 to K1,179. In the four years from 2010 to 2013, GoPNG funding of the national education system more than doubled in nominal terms.

Figure 5: Total government funding of education and enrolment, indexed to 2004 = 100, 2004–13



Source: Budget Branch, NDoE

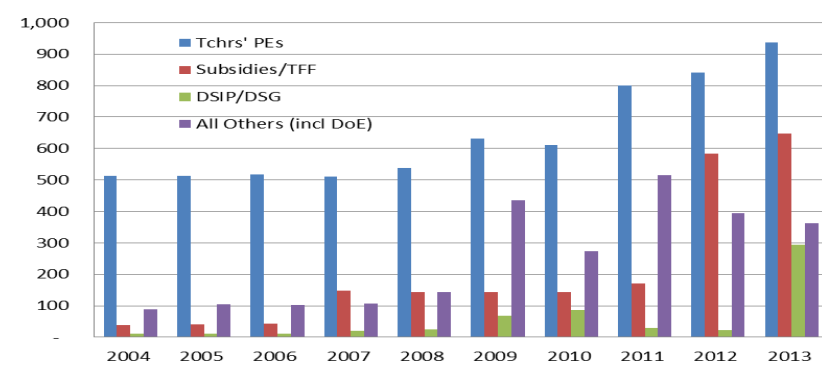
Teachers' emoluments (salaries, allowances and leave fares) is the largest single education cost. However, it fell from 79 per cent of total funding in 2004 (K516.1m) to 42 per cent (K937m) in 2013, as money was allocated to the district, provincial and local-level government Service Improvement Programs (SIP), introduced in 2007, 2013 and 2013 respectively, and to the Tuition Fee Free (TFF) program. TFF increased the direct funding of education institutions, from

¹ Funding data are a mixture of budget appropriations and expenditure, although expenditure data are used wherever practicable, including for the two largest costs: teachers' emoluments and subsidies/TFF.

K171.8m in 2011 to K582.7m in 2012 (the first year of TFF) and K648.6m in 2013. The SIPs were on top of District Support Grants (DSGs) given to Members of Parliament.

Although the national government provides a large majority of education funding, it does not directly control or monitor every aspect of its spending. For example, TFF funds are disbursed to schools, which manage their spending. The national government pays teachers directly, but the salaries are included in provincial governments' budgets. The provinces also control Education Function Grants and their own education budgets, in line with national guidelines. In the 10 years to 2013, the national government's share of spending on education only exceeded 25 per cent of the total in 2009 (31 per cent) and in 2011 (30 per cent).

Figure 6: Total government funding of education by major costs, 2004–13 (Km)



Source: Budget Branch, NDoE

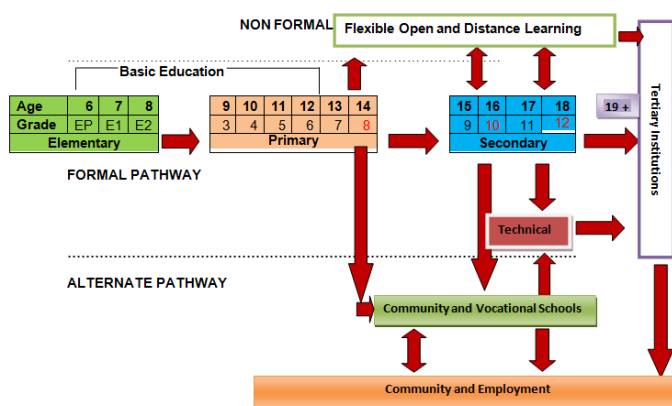
Current education snapshot

In 2014, 11,174 schools were operating in Papua New Guinea, approximately 53 per cent run by government and nearly 46 per cent by faith-based organisations. Student enrolments were just under 2 million. There were in excess of 51,000 teachers employed across all sectors of education, with almost 50 per cent in the primary sector and 38 per cent in the elementary sector. More males than females were accessing education.

NGOs and private organisations operated some schools outside the national education system. This plan does not cover those schools.

The education system has three years of elementary school, six years of primary and four years of secondary. There are national examinations at the ends of Grades 8, 10 and 12.

Figure 7: Education system, 2015



Source: National Plan for Education, 2005-2014

Below is an overview of education statistics for 2014.

Table 1: Number of schools operating, by management, 2014

Sector	Government-run	Church education agency-run	Permitted private and others	Total
Elementary	4,009	3,138	151	7,298
Primary	1,678	1,847	18	3,543
Secondary	133	82	4	219
Vocational	60	52	2	114
Total	5,880	5,119	175	11,174

Source: EMIS, NDoE, 2015

Table 2: Number of students enrolled, by grade, 2014

Sector	Number of students
Elementary total	855,572
Preparatory	335,257
Elementary 1/Grade 1	274,835
Elementary 2/Grade 2	245,480
Primary total	950,914
Grade 3	194,695
Grade 4	178,044
Grade 5	159,325
Grade 6	143,143
Grade 7	122,648
Grade 8	111,618
Secondary total	155,348
Grade 9	61,932
Grade 10	51,031
Grade 11	23,732
Grade 12	18,653
Vocational	41,331
FODE	11,893
Total	1,973,617

Source: EMIS, NDoE, 2015

Table 3: Teacher numbers and teacher:pupil ratio, by grade, 2014

Grade	Male teachers	Female teachers	Total teachers	Teacher:pupil ratio
Elementary total	10,727	8,746	19,473	1:44
Preparatory	3,598	3,377	6,975	1:48
Elementary 1/Grade 1	3,539	2,890	6,762	1:43
Elementary 2/Grade 2	3,590	2,479	6,428	1:40
Primary total	13,258	12,079	25,337	1:36
Grade 3	1,939	2,662	4,601	1:42
Grade 4	2,023	2,359	4,382	1:41
Grade 5	2,070	2,072	4,142	1:38
Grade 6	2,196	1,857	4,053	1:35
Grade 7	2,383	1,618	4,001	1:31
Grade 8	2,647	1,511	4,158	1:27
Secondary total (Grades 9–12)	3,074	1,993	5,067	1:31
Vocational	749	440	1,189	1:35
Total	27,808	23,258	51,066	

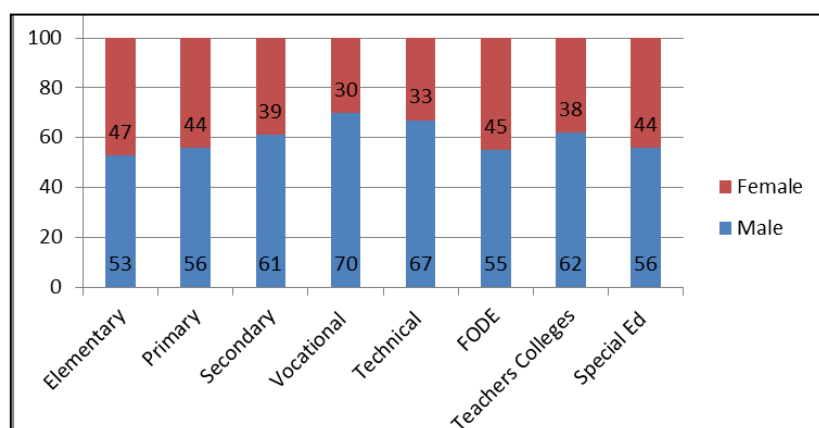
Source: EMIS, NDoE, 2015

Table 4: Transition rate, 2014

Grades	Transition rate (%)		
	Male	Female	Total
Preparatory to 1	87.1	86.0	86.5
1 to 2	90.5	89.4	90.0
2 to 3	82.3	77.3	80.0
3 to 4	88.2	91.5	89.7
4 to 5	90.0	90.5	90.2
5 to 6	90.8	89.6	90.3
6 to 7	88.0	85.1	86.7
7 to 8	93.5	87.8	91.0
8 to 9	61.1	50.3	56.3
9 to 10	84.6	84.9	84.7
10 to 11	46.8	43.5	45.5
11 to 12	84.2	76.9	81.3

Source: EMIS, NDoE, 2015

Figure 8: Gender of enrolled students, by sector, 2014



Source: EMIS, NDoE, 2015

Policies announced in late 2014 include a comprehensive strategy to provide access to a complete education lasting 14 years for any child from the age of five. One proposal is to restructure the education system to introduce the country's first formal early childhood sector. The current three years of elementary education starting at the age of six, six years of primary and four years of secondary education (3–6–4) would be changed to two years of elementary starting at the age of five, six years of primary and six years of secondary (2–6–6).

The proposed new early learning year would be in line with the country's UNESCO commitment and would more closely match the internationally-recognised phases of children's educational development. The 2–6–6 system would ensure progression through a full 14 years of education by abolishing the grade transition examinations at the ends of Grades 8 and 10. Students would instead be assessed to determine their progress in learning and would receive proof of education. See Annex A.

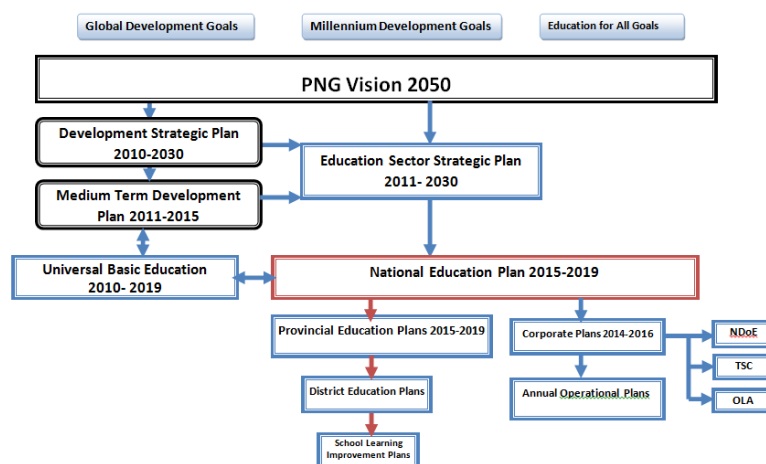
Section three Planning framework

Papua New Guinea was one of the first countries to ratify the Convention on the Rights of the Child, adopted in 1989, which recognises that education is a right that belongs to all children without any form of discrimination. In addition, the country is committed to achieving global education goals, which are due to be renewed soon after the release of this plan.

The National Education Plan 2015–19 is in accordance to the Education Act (1983) and based on the following national principles:

- The constitution statement that basic education is a right for all citizens
- The Vision 2050 aim for the country to become a ‘smart, wise, fair, healthy and happy society by 2050’, through improving the number and quality of opportunities at all educational levels
- The Medium-Term Development Strategy identification of education as a priority for development

Figure 9: The National Education Plan connections in planning



The plan is also underpinned by the country’s Public Service Ethics and Value-Based Leadership Capability Framework:

- Honesty The plan encourages openness and transparency
- Integrity Policies and practices are clear, ethical and intended for educational progress
- Accountability Staff are expected to take responsibility for their actions and report transparently to the wider community
- Respect Staff are expected to work together with trust, while accepting differences, for mutual and national benefit
- Wisdom Staff actions are expected to be based on information and analysis
- Responsibility Staff are expected to be committed to the plan and its holistic goals for progress in education

Source: Department of Personnel Management (undated)

The NEP provides strategic direction for an integrated approach to education. It focuses on improving the quality of education for all and takes account of widespread consultation. Gender equality is a cross-cutting issue reflected across the entire plan and its implementation.

The NEP 2015–19 builds on the NEP 2005–14 and the Education Sector Strategic Plan 2010–30, while complementing the Universal Basic Education (UBE) Plan 2010–19.

Education Sector Strategic Plan 2010–30

- **Access** All children complete nine years of basic education and have the opportunity for education or training beyond Grade 8
- **Teachers and teacher education** All teachers are well trained and resourced and are accepted by the community as professionals
- **Curriculum** All curricula are sensitive to local needs and students' aspirations
- **System management and planning** All institutions are managed effectively and transparently and are accountable to their local communities
- **Technical and Vocational Education and Training** A national system of public and private institutions offering skills development courses, ranging from short to full-time, leading to diploma and technician qualifications

Plan implementation

The plan is aspirational and responsive to identified needs and challenges. To achieve the goal of quality learning for all, an emphasis on implementing the strategies in this plan is essential.

To achieve optimal progress it is hoped that all implementing partners will collaborate to achieve the common direction outlined in this plan. Cascading plans will be developed from the NEP 2015–19. The NDoE will provide technical assistance and advice to provincial and district education offices drafting their own aligned plans, based on local context and priorities but working towards common outcomes. The NDoE will also collaborate with other government agencies and partners in education to achieve the common goal.

It is anticipated that activity will be reported in the department's Annual Operational and Financial Plan under the NEP focus areas. This will enable the NDoE to collate progress and therefore measure its overall performance, for high-level informed decision-making.

A monitoring and evaluation (M&E) system will track and report on progress towards mid-term outputs with recommendations for improvements based on this feedback. NDoE divisions will produce Annual Operational Plans, based on the same logic framework, for each of the NEP's six strategic focus areas, and on the department's Corporate Plan. The divisions will monitor and report progress against their plans.

Strategic planning is a continual process within an organisation, with broad strategies based on an outline of the desired future. Major initiatives may be modified during the five-years of this plan in response to feedback from M&E, but the overall goal and strategic direction will remain the same.

Within the department, a coordinated approach is needed to achieve the overall goal, to ensure the best outcome for students. This is consistent with a focus on system strengthening within the Ministry of Education.

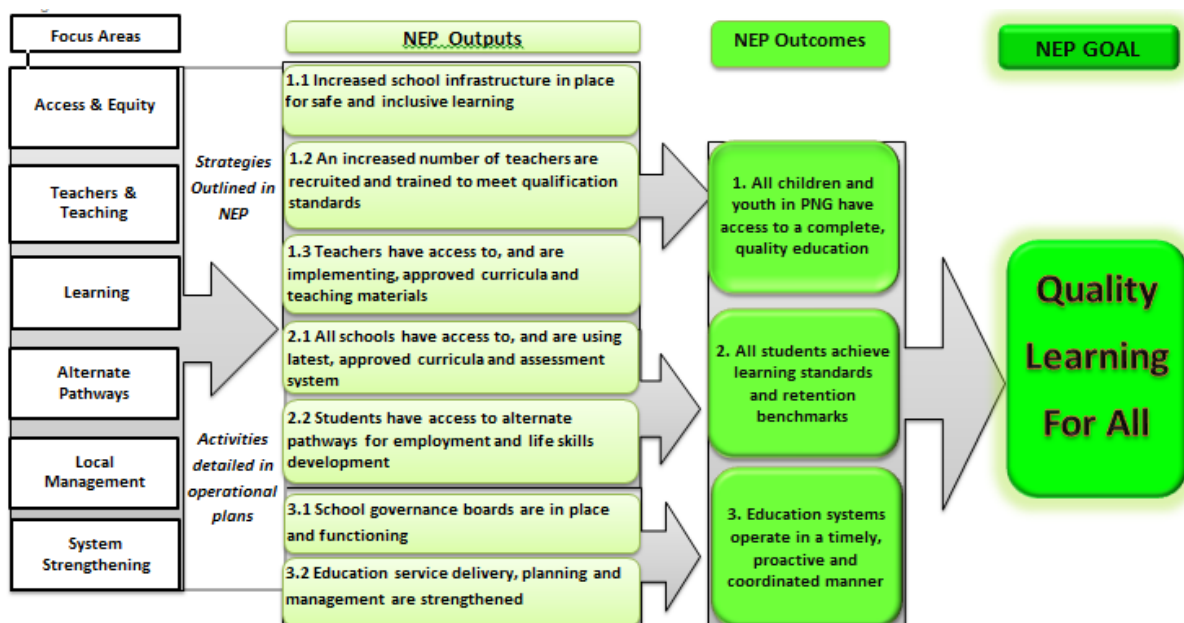
Below is a summary of the roles of the many stakeholders in the crucial implementation of the NEP 2015–19.

National Education Board	<ul style="list-style-type: none"> • Provide advice and guidance, set student quotas and selection criteria, approve governing body membership, impose and set school fees, approve appointments (see the Education Act)
Minister for Education	<ul style="list-style-type: none"> • Set government's education vision and direction, develop policies and issue directives (see the Education Act)
Secretary for Education	<ul style="list-style-type: none"> • Provide leadership in the implementation of the NEP and government policy, through senior Department of Education management (see the Education Act and the Public Service Management Act)
Department of Education	<ul style="list-style-type: none"> • Create and implement operational plans for NEP strategies, with targets • Monitor and evaluate against targets • Conduct annual reviews of NEP progress
Development partners and NGOs	<ul style="list-style-type: none"> • Provide technical assistance and financial support, aligned to NEP
Church education agencies	<ul style="list-style-type: none"> • Support NEP direction and adopt relevant strategies
Provincial education administrations	<ul style="list-style-type: none"> • Create provincial and district education plans to carry out NEP responsibilities, with NDoE support • Implement the NEP in accordance with Provincial Education Acts, if those exist, or in accordance with the national Education Act
District administrations	<ul style="list-style-type: none"> • Ensure that districts meet the minimum education and infrastructure standards • Provide professional and administrative support for head teachers, to improve teaching and learning
Local-Level Governments	<ul style="list-style-type: none"> • Establish and develop schools
Schools	<ul style="list-style-type: none"> • Administrators and boards implement strategies to improve quality learning for all
Communities	<ul style="list-style-type: none"> • Parents and communities to support students in learning • Communities to ensure security of school premises

Section four The plan

The NEP 2015–19 has six focus areas, which will contribute together towards achieving seven outputs and three end outcomes over the next five years, as outlined below. The strategies are interrelated and progress together will contribute to quality learning for all in Papua New Guinea. Quality will be an emphasis across all strategies and be underpinned using quality standards for Learning, Teachers, Schools and School Leaders.

Figure 10: NEP 2015–19 logic framework



See Section five of this plan for detailed national targets of all outputs and outcomes. Sub-national targets contributing to these will be agreed during sub-national planning, based on EMIS data.

Section six contains projected enrolments, based on achieving targets for the period 2015–19.

The lead agencies that will implement the strategies and means of verification are shown in the focus areas below, with abbreviations and acronyms explained in the front of this document.

Note: The term *teacher* that is used throughout the plan is inclusive of teachers, instructors, lecturers and all those implementing a teaching and learning program. The word *school* is used generically to cover schools, colleges, teachers colleges, centres and any other institution where a learning program is supplied. *School board* covers Governing Councils, Boards of Governors and Boards of Management.

This plan refers to the post-primary sector of schooling as secondary. The proposed 2-6-6 structure renames the post-primary sector high schooling but, for clarity, the term secondary is used until any proposed changes take effect.

Access and equity

2019 output targets include:

- 22 per cent more schools
- 19,180/44 per cent more classrooms
- 18 per cent of schools will have libraries
- Toilet:pupil ratio will be 1:25 for girls and 1:40 for boys
- 70 per cent of students have access to functional water facilities
- 70 per cent of educational institutions have hand-washing facilities (running water and soap)
- More special-needs students
- Gross intake ratio will be 100 per cent for elementary and primary, 60 per cent for secondary

Considerable effort is needed to provide access to education for all school-age children and youths throughout the country.

The Tuition Fee Free (TFF) strategy will continue to be the cornerstone of universally-accessible education by subsidising school fees for students, payable direct to schools. A comprehensive overhaul of many aspects of the education system is proposed to give all children the chance to enter school at the age of five and receive a relevant education for 14 years, until they reach Grade 12 (18 years of age). Education will not be made compulsory, but system barriers restricting students from remaining in education will be removed, enabling access by choice. Associated strategies are outlined in relevant focus areas of this plan with full details in Annex A.

The proposed 2–6–6 structure is one component of providing access to 14 years of schooling. The structure of elementary, primary and secondary schools would be changed to better match recognised phases of learning and to accommodate an extra year of school at entry level, to ensure that all students acquire important foundation skills from the age of five in readiness for further learning from the age of seven (Grade 1).

A more innovative approach to providing access to a complete education should take account of the challenges facing rural and remote students. Considerable forward planning for building schools will be required at provincial and district levels to reflect local context and to ensure that community needs are met.

Although there is significant variation between provinces, many still have schools without enough suitable classrooms or clean water and sanitation facilities to provide students with a suitable learning environment that is inclusive, catering for all children's needs. As well as the need for additional classrooms, extra housing will be needed for the increased number of teachers required.

The goal of quality learning for all considers a more inclusive approach to education. Some children and youths are currently being excluded from the system or are marginalised and almost invisible in society. The groups include girls, children with disabilities, those in remote villages and the very poor. Part of the answer may be to ensure that learners are introduced into regular education while removing barriers hindering maximum participation in education. An in-depth gender analysis will identify trends and the causes of some inequalities in access to education.

The elimination of barriers to education and the creation of inclusive, learning-enabling schools require a multi-dimensional approach, with parallel interventions on different fronts. Schools need to become welcoming, child-centred, inclusive of all children, engaged with the community, sensitive to the psycho-social development needs of learners, aware of subtle gender biases, and generally more aware of a range of factors that facilitate or inhibit a child's learning.

A commitment under this NEP focus includes seeking out the children who are not in school; those who either have never attended or who have stopped attending school. The aim is to engage children in school as soon as they reach school age and keep them progressing through appropriate quality learning and suitable pathways to attain at least minimal literacy and numeracy skills. Strategies will attempt to re-engage children and youths who are currently not in formal education.

Early learning programs must address all aspects of children's development (social-emotional, language, cognitive and physical) and provide a solid foundation for success in early primary school. Such programs prepare children for school, making it less likely that they will have to repeat classes or that they will stop going to school. This is especially relevant for children from marginalised families and remote areas.

In order to increase access for all, infrastructure targets are provided to assist with planning. Sub-national planners are encouraged to think innovatively, including the creation of combination schools if this is the best option to increase access and suits local contexts.

Output 1.1 Increased school infrastructure in place for safe and inclusive learning

Access and equity

Strategies	Deliverables	Lead agencies	Timeline
Complete education			
1. Remove barriers restricting access to 14 years of education for children from the age of five <ul style="list-style-type: none"> Localise access <ul style="list-style-type: none"> Create new models of schools, e.g. three-in-one (Preparatory to Grade 12) or two-in-one (Preparatory and Primary) Multi-grade teaching Create child-friendly schools Abolish Grade 8 and 10 examinations Introduce early childhood education <i>(See Annex A for details)</i>	Integrated plan for complete education	<ul style="list-style-type: none"> National PPD Provinces Districts LLGs Schools 	2017 onwards
2. Develop and implement 2–6–6 school system <ul style="list-style-type: none"> Survey existing schools and plan options after wide consultation Adopt interim measures to cater for increasing enrolment and secondary expansion, while ensuring quality learning, such as extra classes and double-shift teaching Include foundation learning in early childhood setting Run community awareness program before changes 	2–6–6 conversion plan with multiple models Places in schools	<ul style="list-style-type: none"> National PPD Provinces Districts LLGs Schools CEAs 	2015 planning 2016–19 implementation
Infrastructure			
3. Develop and implement national infrastructure design standards for all building projects, to cover <ul style="list-style-type: none"> Classrooms Teacher:student ratio Students with special needs Water and sanitation Specialised needs, e.g. TVET, FODE 	National infrastructure design standards	<ul style="list-style-type: none"> National PPD, TVET, FODE Provinces Districts LLGs CEAs 	2015 2015–19
4. Set up quality assurance system to ensure all buildings meet design standards <ul style="list-style-type: none"> Implement national infrastructure standards at sub-national level 	National infrastructure guidelines	<ul style="list-style-type: none"> National PPD 	2016
5. Implement the School Infrastructure Partnership Program		<ul style="list-style-type: none"> Provinces LLGs CEAs 	
6. Build classrooms, schools, colleges, etc. to cater for projected student numbers <ul style="list-style-type: none"> Conform to infrastructure policy Build combination schools, e.g. three-in-one or two-in-one Base on teacher:student ratio Build or adapt for children with special needs <i>(See Alternate pathways focus area for specific TVET strategies)</i>	Classrooms (see indicator 2 targets, page xx) Schools (see Table 6) Water and sanitation facilities Teachers' quarters Libraries	<ul style="list-style-type: none"> National Provinces Districts CEAs 	2015–19
7. Develop e-learning and infrastructure adaptation program to provide access to learning through the use of technology any time, anywhere <i>(See strategy 27)</i>	E-learning infrastructure	<ul style="list-style-type: none"> National E-LD, FODE, GES, ICT, TED Provinces Districts LLGs Schools 	2016–19
8. Provide water, sanitation and hygiene (WaSH) <ul style="list-style-type: none"> Ensure existing water and sanitation facilities meet standards Make facilities suitable for local conditions Cater for children with special needs and girls 	Clean water supplies Toilets for all, including for girls'	<ul style="list-style-type: none"> National GCD 	2015–19

Access and equity			
Strategies	Deliverables	Lead agencies	Timeline
<ul style="list-style-type: none"> Encourage WaSH practices 	hygiene		
9. Provide all teachers with reasonable and affordable accommodation	Teachers' houses	<ul style="list-style-type: none"> National <i>PPD, SD</i> Provinces Districts LLGs Schools CEAs 	2015–19
School fees			
10. Continue to implement and enhance TFF system <ul style="list-style-type: none"> Use the PARI to incorporate funding formula in TFF Devolve TFF responsibility to provinces where possible Monitor TFF usage 	TFF for every enrolled student	<ul style="list-style-type: none"> National <i>GES, PPD</i> Provinces 	2015–19
Equity			
11. Include awareness of equity in all programs and initiatives and review existing policies <ul style="list-style-type: none"> From in-depth gender analysis, develop and implement strategies Conduct HIV and AIDS awareness campaign and implement policy Implement special needs strategies Address issues affecting most-vulnerable children 	Gender analysis and strategy paper	<ul style="list-style-type: none"> National <i>GCD, MCU</i> Provinces Districts LLGs Schools CEAs 	2015–19
12. Get out-of-school children into school or learning programs and keep in education those at risk of leaving <ul style="list-style-type: none"> Adopt UNICEF/UNESCO's Out Of School Children Initiative Develop profiles of out-of-school children Implement strategies, including use of technology Support students and their families to give access to learning, focusing on <ul style="list-style-type: none"> Gender-based violence School-age pregnancy Distance from school Prohibitive school expenses 	Out-of-school children awareness and strategy Virtual classrooms, radio and TV programs	<ul style="list-style-type: none"> National <i>ICT, RED</i> National <i>E-LD, GCD, ICT</i> 	2015 planning 2016–19 implementation
13. Conduct disaster risk reduction and climate change adaption <ul style="list-style-type: none"> Enhance governance mechanism for emergencies Strengthen preparedness and response of teachers and children, including mock earthquake drills Provide effective and timely response, recovery and reconstruction Incorporate in the curriculum (See Emergency in Education and Disaster Risk Management Policy) 	Schools reduce risk	<ul style="list-style-type: none"> National <i>GCD, PPD, SD</i> Provinces Schools CEAs 	2015–19

Table 5: Long-term school building targets, in line with Vision 2050

School type	Planning target
Pre-school	1 per ward
Primary	1 for each ward cluster (maximum of three wards)
Junior secondary (to Grade 10)	1 per LLG
Senior secondary (Grades 11 and 12)	1 per district
Vocational centre	1 per district

Teachers and teaching

2019 output targets include:

Increased numbers of teachers with sectors' target academic qualification

22,600 (44 per cent) more teachers

100 per cent of teachers using approved curricula

100 per cent of teachers have satisfactory access to learning materials

100 per cent of schools are adequately resourced with school materials

Quality teachers with an understanding of relevant pedagogy are critical to achieving quality learning for students. Teachers must be well-trained with relevant qualification, have ongoing training and properly resourced and supported to undertake their important role in the teaching and learning process. Teachers must be well informed and supported in understanding any changes to the curriculum as associated learning assessment practices. As the student population increases with increased access to learning, there is a need to ensure that there are enough quality teachers, trained in the relevant sector pedagogy, wherever required to meet student needs. Teachers' contributions to a more child-friendly learning environment are critical to achieving improved learning. Increased numbers undertaking pre-service training must be offered high-quality programs meeting standards. The need for current teachers to undergo professional development to upgrade their knowledge and skills requires a system of professional learning. To cater for the complete, 14-year education strategy, secondary teachers must be able to teach multiple subjects while primary teachers should be equipped to teach multi-grade classes.

Along with improved teacher quality, factors such as the provision of suitable housing and the better administration of teacher registration, appointments, pay and leave fares will all significantly contribute to teachers' professionalism and improvements in the learning environment for students.

Output 1.2 **An increased number of teachers are recruited and trained to qualification standards**

Output 1.3 Teachers have access to, and are using, approved curricula and teaching materials

Teachers and teaching			
<i>Strategies</i>	<i>Deliverables</i>	<i>Lead agencies</i>	<i>Timeline</i>
Pre-service training			
14. Increase the number of teachers trained to meet increased student demand, while meeting quality standards <ul style="list-style-type: none"> Plan for the expected student numbers in each sector All teachers must have qualifications relevant to their sectors and positions 	Qualified teachers Teacher Qualification Framework	o National <i>TED, TSC</i> Provinces	2019
15. Improve pre-service teacher training <ul style="list-style-type: none"> Select high-quality candidates Establish quality assurance system for teacher training, based on new National Teachers Competency Framework Register teachers colleges that meet national standards Train elementary teachers in registered colleges Deliver multi-grade teaching skills 	Teachers college quality standards	o National <i>SD, TED</i> o Provinces o Districts o Schools	2019 2017
In-service training			
16. Improve quality of all teachers by implementing a National Teacher Competency Framework <ul style="list-style-type: none"> Use to improve teacher competence Use as basis for teacher training Use to assess teacher performance Conduct teacher quality standards awareness program for all teachers and teachers colleges 	National Teachers' Competency Framework, profile for each teacher	o National <i>GCD, SD, TED</i> o Provinces o Districts o Schools	2015 development 2016 pilot 2017 phase one 2018 phase two 2019 phase three

Teachers and teaching

<i>Strategies</i>	<i>Deliverables</i>	<i>Lead agencies</i>	<i>Timeline</i>
17. Enhance teacher quality by providing support and professional learning <ul style="list-style-type: none"> • Conduct needs analysis • Develop formal and semi-formal learning opportunities • Upgrade teachers' qualifications • Upgrade skills and knowledge using profile form National Teachers Competency Framework • Provide training in use of ICT and e-learning technology to enhance learning • Monitor teachers and support in areas of need • Introduce local strategies to reduce teacher absenteeism • Provide industrial attachments 	Teacher professional development	<ul style="list-style-type: none"> ○ National <i>CDD, HROD, GCD, SD, TED, TVET, ICT</i> ○ Provinces ○ Districts ○ Schools 	2015 2015–19 2016 onwards 2015–19
18. Provide specialised training, for <ul style="list-style-type: none"> • Specialist subjects • Early childhood care and education • TVET (include industry attachments) • Special needs (inclusive education) • FODE • ICT and e-learning • Librarianship • Guidance counselling and behaviour management 	Qualified specialist teachers	<ul style="list-style-type: none"> ○ National <i>E-LD, GCD, GES, ICT FODE,OLA, SD, TED, TVET</i> ○ Provinces ○ Districts ○ Schools 	2015–19
19. Train and support teachers for Standards-Based Curriculum <ul style="list-style-type: none"> • Provide teachers with teaching and learning materials • Ensure liaison between teachers, education institutions and curriculum developers for a cohesive approach 	Teachers familiar with SBC pedagogy, content and assessment	<ul style="list-style-type: none"> ○ National <i>CDD, SD, TED</i> ○ Provinces ○ Districts ○ Schools 	Aligned to SBC implementation
20. Improve management of libraries and records <ul style="list-style-type: none"> • Provide capacity-building for school librarians • Train teachers to manage records and classroom libraries 	Functioning and improved libraries	<ul style="list-style-type: none"> ○ National <i>OLA</i> ○ Provinces ○ Districts ○ Schools 	2015–19

Learning

2019 output targets include:

- 100 per cent of schools using approved curricula (SBC)
- 100 per cent teachers using approved curricula (SBC) or National Qualifications Framework materials
- 100 per cent of pre-service colleges using approved curricula (SBC)
- 1:1 pupil:text book ratio
- 100 per cent of schools using new assessment for learning system

Improving learning requires a focus on the learner. There will be a greater emphasis on considering students holistically and appreciating the differences between individuals, as well as understanding learning both inside and outside of school. Strategies employed under the learner focus will combine with those to improve access, to provide relevant teaching and learning experiences. This focus includes formal, informal and non-formal learning.

Character and values education will be introduced as part of the curriculum so that students will develop a sense of respect for nature and for others. They will learn to promote and preserve their culture, practice conflict resolution and become caring, conscientious and responsible citizens. Schools will become safe areas free from gender-based violence and bullying. Gender equity will remain a cross-cutting issue and should be considered in all activities to ensure girls' outcomes are equal to boys'.

Disasters have detrimental effects on the fulfillment of children's right to education. Climate change adaptation and disaster risk reduction, including mock earthquake drills, will be part of the curriculum.

As a major component of learning, the curriculum will provide coherent pathways for learners to acquire skills and knowledge seen by policymakers as essential for life in Papua New Guinea. To overcome past curriculum problems, all stakeholders have embraced a new Standards-Based Curriculum (SBC) for elementary, primary and secondary learners. SBC will continue to be developed, with associated resources and learning materials distributed to all schools. TVET will continue to develop a competency-based curriculum aligned with the National Qualifications Framework.

Libraries will remain an important component of education, by providing books to supplement reading and learning. If relevant, there will be a move towards setting up e-libraries.

A change to examinations will be considered, to ensure that students are not prevented from progressing through education, along with the introduction of an assessment system to measure student progress and engage students in appropriate quality learning. Any changes will involve curriculum developers, to ensure assessment aligns with and supports the curriculum while reflecting good international practice.

An attempt will be made to harness the power of the digital age with an approach that is practical and viable for Papua New Guinea and that may enhance traditional learning.

Output 2.1 Schools have access to, and are using, the latest approved curricula and assessment system

Learning			
Strategies	Deliverables	Lead agencies	Timeline
Curriculum			
21. Develop and implement curriculum, incorporating gender sensitivity and learning capacity for all school levels. <ul style="list-style-type: none"> • Develop and distribute SBC National Curriculum Standards Framework • Produce SBC syllabuses and teacher guides for all school levels <ul style="list-style-type: none"> ○ Distribute materials to every school ○ Ensure relevant curriculum options for work-related, life skills for non-tertiary bound students in years 11 and 12 	National Curriculum Standards Framework for all year levels Syllabuses, teacher guides, text books and student resources in schools	<ul style="list-style-type: none"> ○ National CDD, FODE ○ Provinces ○ Districts ○ LLGs ○ Schools 	2015 elementary 2016 early childhood 2016 primary 2017 Grades 9 and 10 2017 FODE using primary secondary curricula 2018 Grades 11 and 12
22. Set up SBC quality assurance system, providing curriculum feedback to inform revisions	Curriculum monitoring and revision system	<ul style="list-style-type: none"> ○ National CDD, SD 	2015–19

Learning			
Strategies	Deliverables	Lead agencies	Timeline
23. Produce supplementary SBC learning materials, including teacher and student resource books for all grades <ul style="list-style-type: none"> Distribute materials to schools Distribute additional materials to schools through libraries 	Supplementary material to support SBC learning	<ul style="list-style-type: none"> National <i>CDD, OLA</i> 	2015-19
24. Develop a clear direction for excellence in schools and National High Schools	Directional statement	<ul style="list-style-type: none"> National <i>GES, TED</i> 	
25. Ensure TVET programs use approved curriculum and are aligned to industry standards and needs	Curriculum aligned to National Qualifications Framework	<ul style="list-style-type: none"> National <i>TVET</i> 	
26. Provide character and values education <ul style="list-style-type: none"> Teach children to appreciate nature and diversity (cultural, regional, religious, socio-economic and gender) with respect for themselves and their environment Build capacity of teachers in this area Develop and implement school code of conduct Ensure classroom practice encourages respect and care Build student leadership 	School code of conduct	<ul style="list-style-type: none"> National <i>GCD</i> Schools 	2016-19
E-learning			
27. Implement e-learning suitable for Papua New Guinea <ul style="list-style-type: none"> Develop e-learning policy, considering all digital options Develop e-learning program and resources Carry out consultation and readiness awareness Coordinate and advise schools on ICT infrastructure for e-learning Train teachers Trial strategies and resources Implement successful strategies from trials 	A system of e-learning	<ul style="list-style-type: none"> National <i>E-LD, ICT</i> 	2015-16 policy and planning 2016-17 trials 2016-19 Implementation
28. Use ICT to enhance teaching and learning <ul style="list-style-type: none"> Ensure collaboration throughout Ministry of Education Set up virtual schools 	Virtual learning sites	<ul style="list-style-type: none"> National <i>E-LD, ICT, OLA, TSC, NDoE teaching divisions, private sector</i> 	2016 onwards
Early childhood			
29. Establish pre-school program (early childhood care and education) as a transition from home, providing socialisation and foundation literacy and numeracy in readiness for primary school <ul style="list-style-type: none"> Link to proposed education system restructuring and Education Act revision Use existing good practice, e.g. early learning teaching standards, teacher training, appropriate curriculum, teacher employment/deployment Introduce shift-teaching in preparatory year as an interim measure to reduce class sizes, with enhanced salaries for double-shift teachers 	Elementary schools using quality curriculum and standards	<ul style="list-style-type: none"> National <i>CDD, GCD, TED</i> Schools 	2015-16
Assessment			
30. Establish a sustainable national learning assessment system <ul style="list-style-type: none"> Use individual student learning progress to assist further learning Produce aggregated, system-wide progress data for decision-making Abolish Grade 8 and 10 examinations[#] and replace these with certificates acknowledging student achievement level Implement easy-to-use diagnostic assessment for teachers to improve learning programs 	A national learning assessment system with data available electronically Compatibility with international requirements	<ul style="list-style-type: none"> National <i>CDD, FODE MSD, Pacific Benchmarking for Education Results (PaBER) Coordinator (PILNA)</i> 	2016 pilot 2017 primary 2017 Grade 8 and 10 examinations abolished

Learning

<i>Strategies</i>	<i>Deliverables</i>	<i>Lead agencies</i>	<i>Timeline</i>
<ul style="list-style-type: none"> Align assessment to the curriculum Assessment results on ICT database for system wide analysis and use Monitor literacy and numeracy using Pacific Islands Literacy and Numeracy Assessment (PILNA) regional benchmarking tool and a proposed National Standardised Assessment Engage in global assessment 	Literacy and numeracy progress benchmarked <ul style="list-style-type: none"> Nationally (new) Regionally (PILNA) Globally (PISA, TIMS) 	ICT	2015 and 2018 PILNA conducted
31. Increase awareness of need to include children with special needs in mainstream classes where appropriate <ul style="list-style-type: none"> Support all special-needs students and register with Special Education Resource Centre 	<ul style="list-style-type: none"> Children with special needs in mainstream classes Schools providing inclusive education 	<ul style="list-style-type: none"> National TED 	

Alternate pathways

2019 output targets include:

- 52,750 students enrolled in vocational programs
- 16,800 students enrolled in FODE
- 1 vocational centre per district
- 1 technical or business college per province
- 1 polytechnic per region

The focus on the traditional education pathway remains important, yet evidence suggests that there are also significant learning needs outside the traditional elementary, primary and secondary sectors.

The country has a growing shortage of skilled technical workers and a growing population of young people (55 per cent of the population is aged 0–24). In response, Technical and Vocational Education and Training (TVET) will improve and expand its coverage while Flexible Open and Distance Education (FODE) will provide an alternative learning mode.

TVET will provide a more seamless system with easier-to-understand and easier-to-access TVET options and pathways. The aim is to develop and promote a less complex system to allow parents and students to readily understand the certification pathways while seeing the direct links to work skills. The entire system will be underpinned by the National Qualifications Framework, with all institutions that offer TVET courses becoming registered training organisations. TVET will work to implement its Strategic Management Plan (2011–20)

For various reasons, children may not be able to attend traditional school. FODE offers the potential for following the same curriculum, the same examinations and the same selection process as mainstream secondary schools. FODE will continue to be improved to give access to learning in a more flexible manner than by traditional methods. Strategies will also focus on youths and adults who have not attained basic literacy, numeracy or life skills. When the need exists, FODE centres will register and enrol students, supply materials and mark assignments.

Output 2.2 Students have access to alternate pathways for employment and life skills development

Alternate pathways

Strategies	Deliverables	Lead agencies	Timeline
Technical and Vocational Education and Training (TVET)			
32. Develop and promote an understanding among parents and students of TVET educational pathways, purpose and routes to employment <ul style="list-style-type: none"> • Integrate existing organisations into one system, seamless to the community • Simplify TVET institution naming • Simplify course naming using certificate levels, as under the National Qualifications Framework • Clarify TVET options and entry requirements for short and long courses • Conduct public awareness campaign targeting parents and students • Promote vocational studies in schools 	One unified technical and vocational education system Public awareness of TVET options	o National TVET	2018
33. Develop TVET as a viable pathway from the mainstream education system for any student at Grade 8, 10 or 12 (vocational studies in schools and/or dedicated vocational schools) [#]	Simplified pathway courses, based on National Qualifications Framework	o National TVET	2015–17
34. Introduce a regulatory framework for TVET by passing a Skills Training Act	TVET regulatory framework	o National TVET	2015
35. Deliver all TVET under the National Qualifications Framework using nationally certified courses	Certified courses under National Qualifications Framework	o National TVET	2015–19

Alternate pathways

Strategies	Deliverables	Lead agencies	Timeline
36. Register institutions which deliver TVET certificate courses and meet quality and industry standards as Registered Training Organisations <ul style="list-style-type: none"> Conduct registration awareness program for institutions Ensure industry–TVET consultation guides course development based on real industry/workforce needs 	Registered training organisations	○ National TVET	2017
37. Ensure TVET becomes flexible and open to all, to provide technical and vocational/job skills	Public awareness program	○ National TVET	2015–19
38. Ensure that post-secondary TVET provides access to industry- and sector-based applied education for adults	Strengthened links with employers	Provinces Districts	2016–19
39. Support provinces to plan for increased TVET provision, to meet local need <ul style="list-style-type: none"> Current institutions to collaborate to offer more services, e.g. a province's technical college to set up branches in all districts Consider ways to increase opportunity, including offering TVET in secondary schools 	TVET enrolments	○ National TVET ○ Provinces ○ Districts	2016–19
Flexible Open and Distance Education (FODE)			
40. Strengthen system of FODE and links between FODE, traditional schooling and TVET to provide viable options for student movement between systems <ul style="list-style-type: none"> All vocational schools to offer Grade 8 and 9 FODE FODE to take a role in home schooling Set up virtual classrooms 	Links between systems visually represented and advertised Virtual classrooms	○ National E-LD, GES, FODE, TVET ○ Provinces	2015–17
41. Promote public awareness of FODE as an option for study outside conventional schools	Public awareness program	○ National FODE, MCU, TVET ○ Provinces	2015–16
Community programs			
42. Run National Literacy Program <ul style="list-style-type: none"> Identify needs of non-literate population Promote value of literacy for the population Coordinate literacy projects to address identified needs Provide programs for over-aged students in schools Community Learning Centres to continue providing literacy training for adults 	National literacy program	○ National National Literacy Awareness Secretariat	2015 onwards

Local management

2019 output targets include:

- 100 per cent of principals have had financial management training
- 100 per cent of schools have governance boards
- 100 per cent of schools have School Learning Improvement Plans
- 100 per cent of school boards hold at least four meetings each year
- 95 per cent of schools hold minimum of four P&C meetings per year
- 100 per cent schools hold parent/teacher meetings
- 75 per cent of schools increased their National Quality Standards Index rating

Evidence has shown that where schools and colleges are well led and managed, funding is more effectively focused on areas of need, teachers are better supported and, as a result, student learning is improved.

Successful programs focusing on improving skills and capacity of school management boards, including Governing Councils, will be continued. The introduction of the National Quality School Standards Framework (NQSSF) will provide a means to measure schools against agreed standards and will provide a roadmap to focus on aspects requiring improvement. Financial management training for school leaders and school boards will be provided, to ensure that funds are appropriately acquitted and improved delivery of quality learning.

This focus includes improving the competence of Principals and Head Teachers so that they become more effective instructional leaders and managers. The introduction of the National School Leadership Competencies Framework (NSLCF) will be an important tool to begin the journey by measuring the performance of school leaders and indicating improvements needed.

School boards will be supported by sub-national support mechanisms, all focused on improving the standards of teaching and learning. The importance of having an engaged school community is highlighted, with schools encouraged to have parents and the community involved in their children's education and supporting improvements to the quality of schools.

Output 3.1 School governance boards are in place and functioning

Local management			
Strategies	Deliverables	Lead agencies	Timeline
School leadership			
43. Build leadership in schools [#] <ul style="list-style-type: none"> • Principals to improve skills and knowledge through professional learning • Principals or Head Teachers must receive leadership professional development to lead new two- or three-in-one schools[#] • Implement National School Leadership Competency Framework (NSLCF) to assess and improve school leadership performance, including self-assessment <ul style="list-style-type: none"> ○ Develop and implement leadership training program for current and possible future leaders, focusing on women, to enable recruitment of school leaders based on merit 	Trained and competent Principals	<ul style="list-style-type: none"> ○ National GES, PPD ○ National SD ○ Provinces 	2015 pilot 2016 phase 1 2017 phase 2 2018 phase 3 2019 review 2016–19
School planning and management			
44. Improve financial management of education institutions Train Head Teachers, Principals and governing bodies in administration, finance and leadership <ul style="list-style-type: none"> • Train Head Teachers and management boards in quality education, TFF, financial management and acquittal reporting to improve student learning • Establish National Quality Schools Standards Framework to replace the Whole School Quality and Financial Management Assessment Program <ul style="list-style-type: none"> ○ Provide schools with a comprehensive picture of 	Improved TFF management with funds acquitted Schools have transparent financial records	<ul style="list-style-type: none"> ○ National GES, HROD, PPD ○ Provinces ○ National FD, GES, SD 	2015–18 2015–18 2015–19

Local management

Strategies	Deliverables	Lead agencies	Timeline
their performance in providing quality education and in financial management of school income		<ul style="list-style-type: none"> Provinces 	2015–17
45. Develop and implement School Learning Improvement Plans <ul style="list-style-type: none"> Support schools where no previous plans have been produced Review and update current SLIPs 	SLIPs	<ul style="list-style-type: none"> National SD Schools School boards, communities 	2015–19
46. Improve standard of school operation and management <ul style="list-style-type: none"> Implement National Quality School Standards Framework to identify standards of schools and to develop strategies for improvement Schools to adhere to standards, inclusive of recommended teacher:student ratios 	Schools recorded under National Quality School Standards Framework	<ul style="list-style-type: none"> National SD 	2015 pilot 2016 phase 1 2017 phase 2 2018 phase 3 2019 review
47. Strengthen and support behaviour management systems in schools <ul style="list-style-type: none"> School boards and communities to work with staff to support positive behaviour of students, using Behavior Management Policy and Guidelines School based counsellor in each school 	Behaviour management systems in schools Teacher Counsellor in every school	<ul style="list-style-type: none"> National GCD, TSC Schools Communities, Principals, school boards 	2015–19
Community and parental support			
48. Improve community and stakeholder participation [#] <ul style="list-style-type: none"> School boards and Principals to conduct parent and community consultation and education awareness Implement Parents for Quality Education Program Seek community input into planning of two-in-one and three-in-one schools[#] 	Community consultation meetings Reports to school boards	<ul style="list-style-type: none"> National PPD Schools Communities, school boards 	
49. Build and maintain school libraries and manage locally <ul style="list-style-type: none"> Libraries to be open out of school hours for student and community use Set up e-libraries where possible Set up ICT facilities in school libraries for use by students, teachers and communities 	School libraries	<ul style="list-style-type: none"> Schools School boards 	2015–19

System strengthening

2019 output targets include:

- 100 per cent of operational schools receive TFF
- 100 per cent of schools submitting school census data
- 90 per cent of schools inspected at least once annually
- 100 per cent of quarterly operational and financial reports covering all budget activities submitted on time
- 100 per cent of advances and allowances fully acquitted (annually)
- Annual report on departmental operations submitted to Department of Finance
- NEP evaluation completed by June 2019
- All PaBER ratings improved by one level
- 60 per cent of provinces submitting EMIS data electronically

To achieve the best possible learning for students, all supporting functions and governance at national, provincial and district levels should work together to achieve the common goal of quality learning for all.

There will be significant work to streamline and improve administrative systems. Capacity building will give staff the competence to assume tasks effectively, efficiently and accountably while ensuring that maximum funds reach schools to support teaching and learning. Improved systems to store and access quality information will be essential to enhance services.

ICT will be underpin all administrative processes and information systems, with connected systems allowing rapid access to accurate information and resulting in streamlined service delivery. Provinces and schools will be encouraged to take responsibility for the decentralised administration enabled by ICT.

Improved planning, budgeting and accountability will lay the foundation for securing funding from the government and from development partners and for effective project implementation and monitoring. The department will adhere to the Public Financial Management Act and implement the new Integrated Financial Management System to improve financial management and accountability.

During the previous NEP, donor agencies provided essential support in capacity building. It is expected that donors will continue, to provide much-needed technical support and funding, for system strengthening. The Education Sector Improvement Program will provide oversight and coordination in this area.

The Teaching Service Commission will continue to improve its operations. It will establish provincial offices to put services closer to teachers, to deal with professional matters and terms and conditions.

Output 3.2 Education service delivery is improved through effective planning and management

System strengthening			
Strategies	Deliverables	Lead agencies	Timeline
Communication, connectivity and information systems			
50. Improve communication and access to information across MoE and all levels of education <ul style="list-style-type: none"> • Link national, regional, provincial and district education offices and post-primary schools using ICT • Upgrade regional and provincial ICT infrastructures • Establish and/or convert current data systems to ensure one fully integrated digital information system • Replace paper-based records with integrated electronic records management system to improve access to information • Improve information management and archiving 	Integrated ICT systems connecting NDoE and provinces Fully integrated digital information system Centralised MoE and school management database	<ul style="list-style-type: none"> ○ National EMIS, GES, ICT, MCU, MSD, OLA, PPD, RED, TSC, other relevant divisions ○ National HROD, ICT 	2015–19 2015 2016 2017
Planning and coordination			
51. Improve planning <ul style="list-style-type: none"> • Carry out timely planning and policy consultation with partners, using innovative ways to gain partner input 	National Education Plan	○ National PPD, RED	

System strengthening

Strategies	Deliverables	Lead agencies	Timeline
<ul style="list-style-type: none"> Provide consistent advice and coordination to Minister of Education, based on achieving NEP goals Provide planning advice based on reliable data with educational, costing and policy implications Support development of consistent and clear approach to improvement using planning, monitoring and reporting cycle Align annual divisional operational and management plans to NEP, to include risk management Support sub-national planning for NEP goal, especially introduction of complete education[#] 	<p>Planning and reporting cycle</p> <p>Provincial education plans</p>	<p>○ National All NDoE divisions</p>	<p>2015–19</p> <p>2015–19</p> <p>2015–17</p>
<p>52. Improve policy</p> <ul style="list-style-type: none"> Develop a National Education Policy Standards Framework Set up policy development process and template Conduct institutional policy capacity analysis to identify areas of need Identify and audit all NDoE policies Implement an NDoE policy register, with all policies available on an integrated electronic records management system Extend the application of PaBER to assess quality and functionality of existing education policies Train NDoE officers in areas identified in policy development 	<p>National Education Policy Standards Framework</p> <p>Quality assured policies in place and available</p>	<p>○ National PPD, ICT</p>	<p>2015 identification/audit</p> <p>2016 develop framework</p> <p>2015–16 initial assessment</p> <p>2015–16 policy process/template</p>
<p>53. Improve coordination</p> <ul style="list-style-type: none"> Align all education strategies with NEP direction, including assistance and project proposals by donors, NGOs and community-based agencies Establish common operational and management standards Monitor and report on all activities 	<p>Strategies and activities linked to NEP</p>	<p>○ National AD, RED, PPD</p>	<p>2015–19</p>
<p>54. Monitor, evaluate, report and ensure accountability</p> <ul style="list-style-type: none"> Develop coordinated monitoring and evaluation (M&E) framework for NDoE Develop and use results-based monitoring system to track progress towards goals Develop results-based monitoring and accountability measures for management <ul style="list-style-type: none"> Produce staff performance appraisals and institutional performance reviews Use technology to increase promptness of data collection and analysis <ul style="list-style-type: none"> Develop education system research register with all research available on NDoE integrated electronic records management system Pilot innovative EMIS data collection methods Improve access to data by implementing electronic national learning assessment system, to allow progress monitoring 	<p>M&E framework M&E system</p> <p>EMIS electronic data collection</p> <p>Research register</p> <p>Electronic learning data</p>	<p>○ National PPD, RED</p> <p>○ National ICT, PPD, RED</p> <p>○ National MSD, ICT</p>	<p>2016</p> <p>2015–19</p> <p>2015–16</p>

System strengthening

Strategies	Deliverables	Lead agencies	Timeline
Financial management			
55. Establish government-wide Integrated Financial Management System (IFMS) with reporting requirements and timelines <ul style="list-style-type: none"> National, provincial and district agencies to align budgets to cater for teacher salaries using realistic costing Improve internal auditing 	IFMS in use	<ul style="list-style-type: none"> National <i>FD, GES, PPD, ICT</i> National <i>IA</i> 	
56. Improve NDoE asset management <ul style="list-style-type: none"> Include asset management system in Integrated Financial Management System Carry out annual stocktaking Ensure asset usage, storage and disposal comply with government requirements 	Asset management module in use Up-to-date stock record	<ul style="list-style-type: none"> National <i>ProD, AD</i> 	2016 2015
57. Ensure all and claim and payment account processing complies with Public Finances (Management) Act <ul style="list-style-type: none"> Train all requisition and accounts officers 	Training programs	<ul style="list-style-type: none"> National <i>FD</i> 	2015–19
58. Create transparent centralised and streamlined procurement system	Central procurement system	<ul style="list-style-type: none"> National <i>ProD</i> 	2016
59. Establish single payroll system, with decentralised operation and national quality assurance <ul style="list-style-type: none"> Maintain accurate payroll data and streamlined procedures <ul style="list-style-type: none"> Validate data and remove ghost names Establish single Ministry of Education database to improve efficiency and remove duplication 	Single payroll	<ul style="list-style-type: none"> National <i>HROD, PayD, TSC, ICT</i> Provincial 	2017 2016
Human resources			
60. Improve staffing, teaching and public service <ul style="list-style-type: none"> Review human resource management policy, processes and procedures to align with NEP Review manpower establishment to match changing organisational needs Recruit expatriate teaching staff to meet need Use human resources module in ALESCO 	Staff using, human resources module of ALESCO	<ul style="list-style-type: none"> National <i>HROD</i> 	2015
61. Improve efficiency of teacher employment <ul style="list-style-type: none"> Create single authority to manage all aspects of teacher registration, licensing and admission Ensure efficiency of teacher appointments Based on new Education Act, establish TSC offices in all provinces to manage as many functions as possible at provincial level Try to retain teachers by rewarding after-hours teaching and offering incentives for rural and remote postings Review duties of teachers in proposed two-in-one and three-in-one schools[#] 	Appointed teachers all registered TSC in provinces Teacher incentives	<ul style="list-style-type: none"> National <i>Payd, TSC, ICT</i> Provincial 	2015–19 2018 2018
62. Improve public servant recruitment, appointment and succession planning <ul style="list-style-type: none"> Outsource recruitment Raise professional standards and ethics Improve staff appraisal system to ensure staff are aware of their roles, responsibilities and accountability Improve staff discipline and grievance procedures Train public servants to provide educational leadership and meet school needs Develop professional development plan Review system of housing for public servants 	Staff appraisal system Staff training	<ul style="list-style-type: none"> National <i>FD, HROD</i> 	2015 trial 2016 2019

System strengthening

<i>Strategies</i>	<i>Deliverables</i>	<i>Lead agencies</i>	<i>Timeline</i>
63. Improve school services <ul style="list-style-type: none"> • Register all schools with one agency, dependent on Education Act revision • Improve efficiency of establishment and registration of schools • Set up electronic schools register as part of EMIS 	All operating schools registered Electronic schools register	○ National <i>GES, TED, ICT</i>	2017
64. Create accessible libraries, records and documents <ul style="list-style-type: none"> • Encourage schools to access digitised collections for learning • Use Integrated Government Information System to connect national, provincial and district systems • Establish computer-based records 	Digital library collections	○ National <i>E-LD, ICT, OLA</i>	2019

Section five Monitoring and evaluation

Recognising the fundamental importance of high-quality information for decision-making and program design, the NEP 2015–19 includes a strong emphasis on monitoring and measuring performance and outputs, outcomes and, ultimately, impacts (intended or unintended, positive or negative). The NDoE will monitor progress against indicators and baselines detailed below. Indicators will be tracked bi-annually and annually using national and sub-national monitoring and data collection systems (e.g. EMIS) where possible, as well as through other data collection means (e.g. surveys, field visits, School Census). Where data are missing or unavailable, baseline surveys will be conducted. The assessment and utility of data and indicators will be reviewed regularly.

Effective monitoring and evaluation (M&E) should be part of the institutional arrangements of the department's multi-stakeholder partnerships, to allow informed, evidence-based decisions. That is to ensure proper budgeting and resourcing and appropriate capacity building and management, including the identification of clear roles and responsibilities for planning and for M&E.

The main purposes of M&E are to identify successes for replication, identify problems and challenges for action and improve on past performance. Feedback will allow NDoE divisions to take account of M&E results in their annual divisional plans and to determine where research and evaluation may be required.

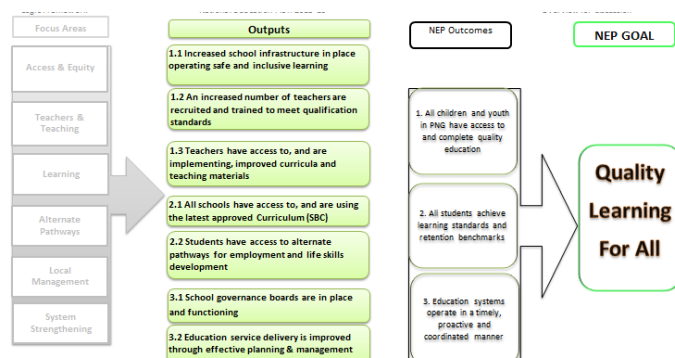
A mid-term review in 2017 will assess progress against the plan. An independent and impartial evaluation during the first quarter of 2019 will assess results and inform the development of the next NEP (to be completed by June 2019).

Designing, building and operating a reporting system that can produce trustworthy, timely and relevant information requires capacity. That includes: the means to collect, analyse and report on performance data; and the skills and understanding to use information effectively. An M&E readiness assessment will identify capacity requirements to ensure a sound and effective M&E system is in place and operating as part of the NEP's implementation.

Outputs

The following section outlines how the expected outputs will be monitored, with baseline data and targets detailed. All data are 2014 unless otherwise stated. Figure 11 demonstrates the contribution of strategies listed under the six focus areas to outputs.

Figure 11: NEP outputs



OUTPUTS

1.1 Increased school infrastructure in place for safe and inclusive learning

- 1.2 An increased number of teachers are recruited and trained to qualification standards
- 1.3 Teachers have access to, and are using, approved curricula and teaching materials

OUTCOME 1

All children and youths have access to a complete and quality education

Access and equity			
Output 1.1 Increased school infrastructure in place for safe and inclusive learning			
Assumptions	1. Enough funding is in place, and disbursed, to enable timely construction of infrastructure 2. There is political support to advance early childhood care and education 3. Access barriers (physical, income, gender) are adequately addressed		
Risk to education	1. Funding is insufficient or disbursed late, thus delaying the construction of infrastructure needed to improve physical access		
Indicator	Baseline	Target (2019)	Means of verification
1 Number of schools operational	Elementary 7,298 Primary 3,543 Secondary 219 Vocational 114 Total 11,174 (82% of registered schools)	Elementary 8,475 Primary 4,600 Secondary 370 Vocational 191 Total 13,635 (+25%)	EMIS
2 Number of classrooms, by sector and type	Permanent Pre-school baseline to be established Elementary 6,116 Primary 16,784 Secondary 2,441 Vocational 432 Semi-permanent Elementary 474 Primary 3,790 Secondary 102 Vocational 75 Bush materials Elementary 6,353 Primary 2,639 Secondary 41 Vocational 15 Total 43,535 Elementary 17,216	Permanent Pre-school 4,800 Elementary 9,043 Primary 23,719 Secondary 4,412 Vocational 827 Total 62,715 (+44% since 2012) Elementary 21,277 (+24%) Primary 30,800 (+33%) Secondary 4,850 (+88%) Vocational 988 (+89%)	EMIS

Access and equity					
Output 1.1		Increased school infrastructure in place for safe and inclusive learning			
Assumptions		1. Enough funding is in place, and disbursed, to enable timely construction of infrastructure 2. There is political support to advance early childhood care and education 3. Access barriers (physical, income, gender) are adequately addressed			
Risk to education		1. Funding is insufficient or disbursed late, thus delaying the construction of infrastructure needed to improve physical access			
Indicator		Baseline		Target (2019)	Means of verification
		Primary 23,213 Secondary 2,584 Vocational 522 (2012 data)			
3	Number and percentage of schools with libraries	Elementary 364 Primary 1,132 Secondary 165 Vocational 15 Total 1,676/15% (2012 data)	Elementary 370 Primary 1,900 (80% of levels 4–8) Secondary 220 (100%) Vocational 18 Total 2,528 18%		EMIS using RapidPro survey (UNICEF)
4	Number of functional* toilets in schools ** Indicator and data to change in 2015 to fit global standards Indicator to include: % of toilets in schools functional (measured by functional toilets divided by number of toilets, including broken and defunct toilets)	Elementary 11,622 Primary 14,861 Secondary 2,031 Vocational 461 (2012 data: number of toilets per sector, no record of functional or number per school)	2017 50% increase on baseline 2019 70% increase on baseline		EMIS School Census
5	Toilet:pupil ratio (disaggregated by gender)	1:32 (2012 data)	1:25 females 1:40 males		EMIS
6	Percentage of schools with functional water facilities ** Indicator and data to change in 2015 to fit global standards Indicator to include: % of functional water facilities in schools (measured by functional water facilities divided by number of water facilities)	Baseline to be established in 2015	2017 50% of students have access to water facilities 2019 70% of students have access to water facilities		EMIS
7	Percentage of schools that have hand washing facilities with running water and soap	Baseline to be established in 2015	2017 50% 2019 70%		EMIS using RapidPro survey (UNICEF)
8	Early Childhood Care and Education policy	No	Yes		National Executive Council
9	Gross intake ratio, by sector <i>Total number of new entrants in the first grade of a sector, regardless of age, expressed as a percentage of the population at official entrance age</i>	Elementary 143% Primary 98% Secondary 34% (2013)	Elementary 100% Primary 100% Secondary 60%		EMIS (2014 baseline to be provided in 2015)
10	Percentage of children enrolled in ECCE	Baseline to be established in 2015	25% of 3–6 year olds		World Bank data
11	Numbers and percentages of special-needs students in mainstream education registered with Special Education Resource Centre	Total Registered Elementary 9,441 2,599 28% Primary 9,712 1,982 16% Secondary 1,228 442 36% Vocational 552 335 61% Total 20,933 5,358 26% Registered Male Female Elementary 1,376 1,223 Primary 1,074 908 Secondary 187 255 Vocational 137 198 Total 2,774 2,584 (2013)	75% registered (2014 baseline)		EMIS

Access and equity			
Output 1.1 Increased school infrastructure in place for safe and inclusive learning			
Assumptions		1. Enough funding is in place, and disbursed, to enable timely construction of infrastructure 2. There is political support to advance early childhood care and education 3. Access barriers (physical, income, gender) are adequately addressed	
Risk to education		1. Funding is insufficient or disbursed late, thus delaying the construction of infrastructure needed to improve physical access	
Indicator	Baseline	Target (2019)	Means of verification
12 Difference in Prep to Grade 8 NER between best and worst provinces	58% (UBE Plan data, 2013)	10% (UBE Plan target)	EMIS
13 Difference in Prep to Grade 8 NER between best and worst districts	57% (2013)	25% (UBE Plan target)	EMIS

OUTPUTS

- 1.3 Increased school infrastructure in place for safe and inclusive learning
- 1.4 An increased number of teachers are recruited and trained to qualification standards**
- 1.3 Teachers have access to, and are using, approved curricula and teaching materials

OUTCOME 1

All children and youths have access to a complete and quality education

Teachers and teaching			
1.1 An increased number of teachers are recruited and trained to qualification standards			
Assumptions		1. Policy frameworks and incentive structures make teaching a viable career option 2. Sufficient funding is in place, and disbursed, to enable the timely hiring of qualified teachers	
Risks		1. Not enough people want to become teachers 2. Bureaucracy prevents the timely recruitment of qualified teachers 3. There are not enough facilities and instructors to train enough teachers	
Indicator	Baseline	Target (2019)	Means of verification
14 Number and percentage of teachers with required minimum teaching qualification, by grade and sector	Pre-school Baseline to be established	Pre-school Certificate or above 4,800 100%	EMIS
	Elementary	Elementary	
	Certificate 19,385 99.6%	Certificate or above 23,697	
	Diploma 78 0.4%	99%	
	Degree 10 0.1%	Total 23,784	
	Master's 0 0.0%		
	Total 19,473		
	Primary	Primary	
	Certificate 5,929 23.4%	Diploma or above 28,750	
	Diploma 19,104 75.4%	82%	
	Degree 304 1.2%	Total 34,972	
	Master 0 0.0%		
	Total 25,337		
	Secondary	Secondary	
	Certificate 502 9.9%	Degree or above 5,730	
	Diploma 1,758 34.7%	72%	
	Degree 2,797 55.2%	Total 8,000	
	Master 10 0.2%		
	Total 5,067		
	Vocational	Vocational	
	Certificate 253 21.3%	Diploma or above 1,800	
	Diploma 865 72.8%	85%	
	Degree 70 5.9%	Total 2,110	
	Master's 1 0.1%		
	Total 1,189		

Teachers and teaching				
1.1 An increased number of teachers are recruited and trained to qualification standards				
Assumptions		1. Policy frameworks and incentive structures make teaching a viable career option 2. Sufficient funding is in place, and disbursed, to enable the timely hiring of qualified teachers		
Risks		1. Not enough people want to become teachers 2. Bureaucracy prevents the timely recruitment of qualified teachers 3. There are not enough facilities and instructors to train enough teachers		
Indicator		Baseline	Target (2019)	Means of verification
15	Percentage of teachers accessing in-service training opportunities	N/A	100%	TED
16	Percentage of teachers meeting minimum teacher standards, by level	Baseline will be based on a new National Teacher Quality Standards Framework, to be produced in 2015	25% increase	National Teacher Quality Standards Framework
17	Percentage of teachers provided with housing	66% (2012)	75%	Standards Officers
18	Number of teachers employed	Elementary 19,473 Primary 25,337 Secondary 5,067 Vocation 1,189 Total 51,066	Pre-school 4,800 Elementary 23,784 (+22%) Primary 34,972 (+38%) Secondary 8,000 (+58%) Vocational 2,110 (77%) Total 73,665 (+44%)	EMIS

OUTPUTS

- 1.5 Increased school infrastructure in place for safe and inclusive learning
- 1.6 An increased number of teachers are recruited and trained to qualification standards
- 1.3 **Teachers have access to, and are using, approved curricula and teaching materials**

OUTCOME 1

All children and youths have access to a complete and quality education

Teachers and teaching**Output 1.3 Teachers have access to, and are using, approved curricula and teaching materials****Assumption**

- 1. Budget is in place to support the development and distribution of quality learning materials

Risks

- 1. There is insufficient budget to produce and distribute necessary learning materials to schools and teachers
- 2. Teachers are not aware of the shift to SBC and therefore do not use appropriate curricula

Indicator	Baseline	Target (2019)	Means of verification
19 Percentage of teachers reporting use of approved (standards-based) curricula	0%	100%	Standards Officers reports
20 Percentage of schools adequately resourced with (SBC) materials	0%	100%	Standards Officers reports
21 Percentage of teachers reporting satisfactory access to (SBC) learning materials	0%	100%	Standards Officers reports

OUTPUTS

- 2.1 **Schools have access to, and are using latest and approved curricula and assessment system**
- 2.2 Students have access to alternate pathways for employment and life skills development

OUTCOME 2

All students will achieve learning standards and retention benchmarks

Learning**2.1 Schools have access to, and are using latest curricula and assessment system****Assumption**

- 1. Budget is in place to support the development and distribution of quality learning materials

Risks

- 1. There is insufficient budget to produce and distribute necessary learning materials to schools and teachers
- 2. Teachers have not received training for new (SBC) and therefore do not use appropriate curricula or learning assessment

Indicator	Baseline	Target (2019)	Means of verification
22 Percent of schools at each level using SBC National Curriculum Statement, syllabuses and teacher guides	0%	2016 50% using National Curriculum Statement 2017 50% using syllabuses and teacher guides 2019 100% using all	Standards Officers reports
23 Percent of pre-service colleges using SBC National Curriculum Statement, syllabus and teachers guides	0%	2016 50% using National Curriculum Statement 2017 50% using syllabuses and teacher guides 2019 100% using all	Standards Officers reports
24 Percentage of schools at each level using SBC learning materials	0%	2017 50% 2019 100%	Standards Officers reports
25 Percent of pre-service colleges using SBC supplementary materials	0%	2017 50% 2019 100%	Standards Officers reports
26 Pupil:SBC text book ratio	1:0	1:1 (UBE Plan)	Standards Officers reports
27 Percentage of schools using assessment for learning system (Individual student and education-wide)	0%	2017 50% 2019 100%	Standards Officers reports
28 Students receiving Grade 8 and Grade 10 certificates of education	0%	2018 100%	MSD, ICT, Standards Officers reports (statements will be part of new assessment system)

OUTPUTS

- 2.1 Schools have access to, and are using latest and approved curricula and assessment system
- 2.2 Students have access to alternate pathways for employment and life skills development

OUTCOME 2

All students will achieve learning standards and retention benchmarks

Alternate pathways**Output 2.2 Students have access to alternate pathways for employment and life skills development**

Assumption	1. Relevant quality facilities are in place, staffed and functioning 2. There is political support to advance alternative pathways for life skill development		
Risks	1. Budgets are insufficient, or are disbursed late, thus delaying the construction of vocational centers, non-trade flexible open learning centres and other relevant institutions 2. TVET facilities are not located in locations to maximize access 3. Access barriers (physical, income, gender) are inadequately addressed		
Indicator	Baseline	Target (2019)	Means of verification
29 Number of students enrolled in vocational programmes, by gender	Male 28,999 70% Female 12,332 30% Total 41,331	Male 31,650 60% Female 21,100 40% Total 52,750	EMIS
30 Number of FODE enrolments, by gender	Male 5,403 45.4% Female 6,490 54.6% Total 11,893	Male 7,750 Female 9,150 Total 16,900	FODE
31 Number of vocational secondary schools, polytechnics, non-trade and trade flexible open learning institutions operational	119 vocational centres (17 districts without centres) 1 technical secondary school 4 community colleges 8 technical and business colleges 1 polytechnic	1 vocational centre per district 1 technical or business college per province (22) 1 polytechnic per region (4)	EMIS

OUTPUTS

- 3.1 School governance boards are in place and functioning
- 3.2 Education service delivery is improved through effective planning and management

OUTCOME 3

Education systems operate in a timely, proactive and coordinated manner

Local management**Output 3.1 School governance boards are in place and functioning**

Assumption	1. Teachers, principals and community members are interested and committed to supporting and improving school management		
Risk	1. Low level of interest or involvement leads to poor school governance, limiting overall quality and effectiveness		
Indicator	Baseline	Target (2019)	Means of verification
32 Percent of principals with training; inclusive of financial management training	5%	100%	<ul style="list-style-type: none"> Financial Management Training Program reports; Standards Officers
33 Percentage of schools with governance boards	Baseline to be provided during 2015	100%	Whole School Quality Assessment and Financial Management Assessment Report or National Quality School Standards (implementation 2015)
34 Percentage of school governance board meetings held	Baseline to be provided during 2015	100%	WSQA or National Quality School Standards Index (2015)
35 Percentage of schools with School Learning Improvement Plans	85% (2013 SLIP Impact Study)	100%	WSQA or National Quality School Standards Index (2015)
36 Percentage of parent and citizen meetings held	Baseline to be provided during 2015	95% hold four meetings annually	WSQA or National Quality School Standards Index (2015)
37 Percentage of parent /teacher meetings held (by school)	N/A	100%	WSQA or National Quality School Standards Index (2015)
38 National Quality School Standards Index	A baseline standard to be established for schools in 2015	20% increase	National Quality School Standards Index (Implementation 2015)

OUTPUTS

3.1 School governance boards are in place and functioning

3.2 Education service delivery is improved through effective planning and management**OUTCOME 3**

Education systems operate in a timely, proactive and coordinated manner

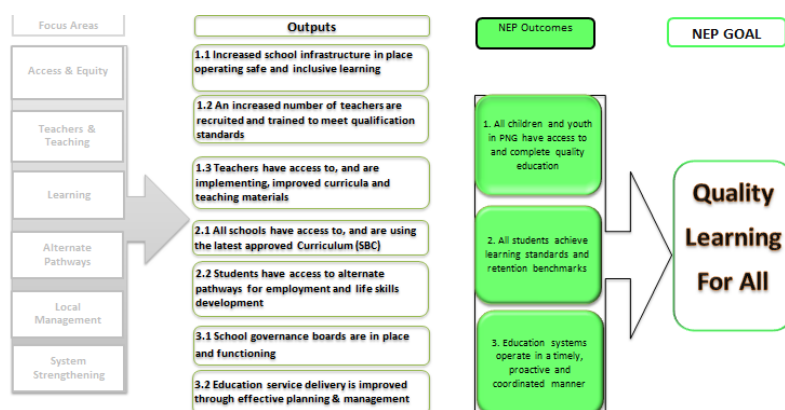
System strengthening**Output 3.2 Education service delivery is improved through effective planning and management****Assumption** 1. There is a common understanding of the importance of public financial management and reporting, and a willingness to monitor and report data**Risk** 1. Poor data and accounting systems limit the ability to report accurate data, leading to skewed reporting

Indicator	Baseline	Target (2019)	Means of verification
39 Number and percentage of operational schools that receive TFF	10,109 93%	100%	Standards Officers reports
40 Percentage of schools submitting school census data	88%	100%	EMIS
41 National school leadership competency framework providing leadership profiles	No	100% by 2018	Standards Officers reports
42 Percentage of schools inspected at least once (annually), by level	Primary and elementary 50% Secondary 100%	100%	Standards Officer reports DPLGA
43 Percentage of quarterly operation and financial reports submitted on time and reporting on all budget activities	N/A	100%	Department reports
44 Percentage of total national education system appropriations allocated to personal emoluments	43% (2015)	40%	FD
45 Percentage of teachers' salaries appropriation spent (through provincial budgets)	135% (2013)	100%	FD
46 Percentage of advances and allowances fully acquitted	71%	100% annually	FD
47 Annual NDoE financial report submitted to Department of Finance annually	2012 and 2013 submitted in 2014	Annually, in first six months of year	FD
48 Quality assessment of education policies by Pacific Benchmarking for Education Results (PaBER) <ul style="list-style-type: none"> Curriculum and materials Teacher quality School governance and management Student assessment EMIS 	<ul style="list-style-type: none"> 'Emerging' 'Emerging' 'Emerging' 'Emerging' EMIS result during 2015 	<ul style="list-style-type: none"> 'Established' 'Established' 'Established' 'Established' a one level improvement 	Research and Evaluation (PaBER National Coordinator) World Bank assessment tool
49 NEP review and evaluation	No baseline	2017 mid-term review June 2019 final evaluation	PPD
50 Percentage of provinces submitting EMIS data electronically	0%	60%	ICT

Outcomes

The following section outline how the expected *outcomes* will be monitored, with baseline data and targets detailed. All data is 2014 unless otherwise stated. The figure below demonstrates the contribution of outputs to outcomes.

Figure 12: NEP outcomes



OUTPUTS

- 1.7 Increased school infrastructure in place for safe and inclusive learning
- 1.8 An increased number of teachers trained to qualification standards are recruited
- 1.3 Teachers have access to, and are using, improved curricula and teaching materials

OUTCOME 1

All children and youths have access to a complete and quality education

Outcome 1 All children and youths have access to a complete and quality education			
Assumption 1. There is adequate infrastructure and enough teachers to ensure access Risk 1. The political support and financial resources are inadequate to develop the infrastructure and human resource base needed to meet demand			
Indicator	Baseline		Means of verification
1.1. Transition rate, by level and gender	Elementary to primary 80% Male 82.3% Female 77.3% Grade 8 to Grade 9 56% Male 61.1% Female 50.3% Grade 10 to Grade 11 45.5% Male 46.8% Female 43.5%	Elementary to primary 85% Grade 8 to Grade 9 65% Grade 10 to Grade 11 55%	EMIS
1.2. Gender parity index, by level	Elementary 0.92 Primary 0.92 Secondary 0.71 (2013)	Elementary 1.00 Primary 0.95 Secondary 0.95	EMIS (2014 data to be updated in 2015)
1.3. Pupil:teacher ratio, by level	Elementary 1:44 Primary 1:36 Secondary 1:31 Vocational 1:35	Elementary 1:35 Primary 1:35 Secondary less than 1:35 Vocational 1:31	EMIS
1.4. Gross enrolment ratio, by gender <i>Total enrolment in a specific level of education, regardless of age, expressed as a percentage of the eligible official school-age population corresponding to the same level of education in a given school year</i>	Elementary Male 131.03% Female 127.28% Total 129.23% Primary Male 85.79% Female 74.81% Total 80.52% Secondary Male 26.12% Female 18.56% Total 22.50%	Elementary 120% Primary 95% Secondary 34%	EMIS

Outcome 1 All children and youths have access to a complete and quality education			
	(2013)		
1.5. Net enrolment ratio, by gender <i>Enrolment of the official age group for a given level of education expressed as a percentage of the corresponding population</i>	Elementary Male 62.98% Female 61.25% Total 62.15% Primary Male 50.08% Female 43.67% Total 47.01% Secondary Male 8.54% Female 6.12% Total 7.38% (2013)	Elementary 79.3% Primary 65.9% Secondary 10%	EMIS
1.6. Completion rate by level (takes no account of students repeating grades and uses enrolment rather than graduate numbers)	Elementary 128% Primary 77% Secondary Grade 10 36% Grade 12 11%	Elementary 128% Primary 80% Secondary Grade 10 44% Grade 12 16%	EMIS
1.7. Gross enrolment ratio for ECCE	Baseline to be established in 2015 by ECCE facility survey	15% increase	ECCE facility survey
1.8. Public expenditure on education as percentage of GDP/total government expenditure	4.9% (2015)	6.0%	National budget report
1.9. Number of out-of-school children	Baseline to be established in 2015 by OOSCI survey	50% of OOSC will receive education	OOSCI baseline survey
1.10. Number and percentage of teachers meeting national performance standards	Baseline to be established in 2015 using National Quality School Standards Framework to be established in 2015	25% increase	Standards Officers using National Quality School Standards Framework

OUTPUTS

- 2.1 Schools have access to, and are using, the latest and approved (Standard Based) Curriculum
- 2.2 Students have access to alternate pathways for employment and life skills development

OUTCOME 2

All students achieve learning standards and retention benchmarks

Outcome 2 All students achieve learning standards and retention benchmarks			
Assumptions <ol style="list-style-type: none"> 1. Schools and other learning institutions implement SBC in line with national policy 2. Qualified teachers are in place and provide quality education that meets national standards 3. Students have access to, and use, alternate pathways for employment and life skills development 			
Risk <ol style="list-style-type: none"> 1. Inadequate resources and lack of political support will delay the implementation of SBC 			
Indicator	Baseline	Target (2019)	Means of verification
2.1 Percentage of students reaching satisfactory regional literacy and numeracy benchmarks	Numeracy 36% Reading 51% Writing 8% (2012 assessment)	Numeracy 55% Reading 65% Writing 25%	PILNA conducted 2012, 2015 and 2018
2.2 Percentage of students reaching national literacy and numeracy standards	Baseline to be established in 2016	20% increase	Literacy and numeracy assessment survey being developed 2015
2.3 Survival rate, by level and gender <i>Percentage of a cohort of students enrolled in the first grade of a given level or cycle of education in a given school year who are expected to reach successive grades</i>	Elementary Preparatory to Elementary 2 Male 85% Female 82% Total 83% Primary , Grade 3 to Grade 8 Male 75% Female 68% Total 72% Secondary , Grade 9 to Grade 12 Male 42% Female 40% Total 41%	Elementary 85% Primary 76% Secondary 46%	EMIS
2.4 Graduates by level	Grade 10 53,414 Grade 12 19,871	Grade 10 70,000 Grade 12 28,000	MSD

OUTPUTS

- 3.1 School governance boards are in place and functioning
- 3.2 Education service delivery is improved through effective planning and management

OUTCOME 3

Education systems are operate in a timely, proactive and coordinated manner

Outcome 3 Education systems operate in a timely, proactive and coordinated manner

Assumption 1. Governance systems (payroll, school budgets, quality assurance mechanisms, etc.) are in place and functioning to support the successful management of the education system

Risk 1. Poorly functioning systems slow the delivery of funds to schools and the timely payment of staff, leading to ineffective service delivery

Indicator	Baseline	Target (2019)	Means of verification
3.1 Number of teachers and school officials put back on payroll by end of April annually compared with March payroll	41,396 (81.04%) returned to payroll in April 2015	TBC	Alesco
3.2 Teaching position vacancies	Baseline to be provided during 2015	TBC	Alesco, GES
3.3 Percentage of schools spending TFF on approved items	Baseline to be provided during 2015	100%	Whole School Quality Assessment and Financial Management Assessment Report or National Quality Standards Index (implementation 2015), SLIP, Standards Officers
3.4 Schools using accounting system or combined cash book	31% not using cash book	100% schools use an accounting system or cash book	National Quality Standards Index (implementation 2015)
3.5 Percentage of schools submitting acquittals	Baseline to be provided during 2015	TBC	Standards Officers
3.6 Percentage of education system budgets expended annually	Baseline to be provided during 2015	100%	Annual Operational Financial Plan
3.7 NDoE annual report tabled in parliament on time with 100% coverage of budget activities	Baseline to be provided during 2015	100%	Parliamentary reports

Definitions

Functional toilets

Toilet facilities are not physically broken and can be used.

Partially functional toilets

Toilets can be used, but there are at least some problems with the physical infrastructure and some repair is necessary eg some deterioration in concrete, doors/locks coming loose, roof deteriorating etc.

Non-functional toilets

The toilets exist, but are so badly damaged or deteriorated it is no longer reasonably possible to use them e.g. squatting plate broken, door missing, roof has holes etc.

Section six Projections and costing

The following data have been provided by the Statistics Branch of NDoE, based on verified 2014 statistics.

Enrolments projections 2015–19

Table 6: Projected student enrolments, 2015–19

	2015	2016	2017	2018	2019
Pre-school	-	-	64,155	132,357	204,798
Preparatory	331,186	329,110	327,033	324,956	322,879
Elementary	911,679	953,025	942,206	933,075	923,943
<i>Annual change</i>		5%	-1%	-1%	-1%
E1 and G1	328,038	322,512	318,819	315,126	311,433
E2 and G2	252,454	301,403	296,354	292,993	289,631
Primary	947,641	991,539	1,068,009	1,132,529	1,189,002
<i>Annual change</i>		5%	8%	6%	5%
G3	196,384	204,487	247,151	245,974	249,044
G4	183,324	185,740	194,263	234,793	233,675
G5	167,645	173,387	176,453	184,550	223,054
G6	150,020	158,559	164,718	167,630	175,322
G7	134,783	141,888	150,631	156,482	159,248
G8	115,485	127,477	134,794	143,099	148,658
Secondary	167,619	176,800	195,559	215,516	242,302
<i>Annual change</i>		5%	11%	10%	12%
G9	62,506	66,750	75,976	82,763	93,015
G10	58,835	59,381	63,413	72,178	78,625
G11	23,732	28,123	29,453	32,594	39,698
G12	22,545	22,545	26,717	27,980	30,964
Vocational	43,398	45,567	47,846	50,238	52,750
<i>Annual change</i>		5%	5%	5%	5%
FODE	13,104	14,035	14,965	15,896	16,826
<i>Annual change</i>		7%	7%	6%	6%
Total	2,083,440	2,180,965	2,332,740	2,479,610	2,629,621
<i>Annual change</i>		5%	7%	6%	6%

Financial projections for 2015–19

Following is a breakdown of the projected Costs and revenues in the period by Medium Term Expenditure Framework category and sector. These figures are indicative costings that emanate from the projection of Department of Education enrolments combined with targets, using a costing projection model. The Medium Term Expenditure Framework was developed by the National Department of Education to allow officials to project budgetary needs in two ways: by school level and expenditure categories.

TFF is the biggest component of the institutional funding Medium-Term Expenditure Framework category. Projections of donor input by category and sector is included. The probable shortfalls in the budget are included as Gaps for funding.

Table 7: Financial projections, 2015–19

Projected expenditure (Kina '000s)	2015	2016	2017	2018	2019
Elementary					
Teacher education	54,998	25,199	18,790	16,418	14,983
Education materials	26,963	0	0	11,130	11,613
Institutional infrastructure	34,032	47,133	39,526	41,707	34,437
Education standards	35,383	38,576	39,763	41,060	42,415
Institutional funding	114,416	126,294	131,535	137,239	143,186
Management and administration	47,062	51,907	54,024	56,311	58,685
Personal emoluments	466,221	532,162	575,228	609,200	644,519
Total	779,076	821,271	858,865	913,065	949,837
Primary					
Teacher education	89,041	142,084	128,959	162,767	171,260
Education materials	23,894	233,630	66,593	72,272	157,964
Institutional infrastructure	460,970	468,382	478,949	498,049	529,056
Education standards	50,346	55,181	61,347	67,501	73,408
Institutional funding	324,761	355,003	399,280	442,542	485,912
Management and administration	66,191	71,671	79,909	87,496	95,192
Personal emoluments	895,317	1,026,399	1,149,745	1,267,466	1,381,075
Total	1,910,521	2,352,350	2,364,783	2,598,092	2,893,865
Secondary					
Teacher education	1,003	1,109	15,497	1,492	1,758
Education materials	22,817	23,903	96,541	26,076	27,163
Institutional infrastructure	306,425	333,407	451,284	457,324	374,313
Education standards	12,368	13,327	15,430	17,940	20,854
Institutional funding	254,892	282,893	328,597	379,765	449,267
Management and administration	30,792	33,909	37,713	41,774	46,574
Personal emoluments	215,528	244,747	282,258	324,116	378,134
Total	843,824	933,295	1,227,320	1,248,487	1,298,063
Vocational					
Teacher education	2,433	1,091	1,164	1,242	1,326
Education materials	4,557	5,012	5,502	6,029	6,594
Institutional infrastructure	73,938	79,147	84,771	90,848	97,417
Education standards	1,146	1,263	1,393	1,535	1,693
Institutional funding	86,557	95,429	105,210	115,994	127,884
Management and administration	2,324	2,560	2,819	3,104	3,418
Personal emoluments	67,469	76,392	83,640	91,421	99,771
Total	238,422	260,894	284,499	310,173	338,102
Technical (post-Grade 12)					
Teacher education	259	259	259	259	259
Education materials	7,509	442	477	515	556
Institutional infrastructure	5,217	13,810	14,461	15,180	15,975
Education standards					
Institutional funding	3,446	3,722	4,220	4,786	5,427
Management and administration	5,420	5,962	6,233	6,504	6,776
Personal emoluments	17,233	18,485	18,706	19,443	20,179
Total	39,085	42,680	44,357	46,687	49,172
Teachers colleges					
Teacher education					
Education materials					
Institutional infrastructure					
Education standards					
Institutional funding					

Projected expenditure (Kina '000s)	2015	2016	2017	2018	2019
Management and administration	80,374	85,463	81,764	86,008	90,523
Personal emoluments	45,522	48,757	52,062	55,443	59,044
Total	125,896	134,220	133,826	141,451	149,567
Other (management and administration)					
Teacher education	147,733	172,282	167,504	185,339	189,882
Education materials	85,739	262,987	171,038	119,992	210,033
Institutional infrastructure	885,025	1,013,059	1,144,314	1,153,323	1,055,676
Education standards	99,243	108,347	121,141	134,654	148,609
Institutional funding	790,914	870,513	987,623	1,112,487	1,256,987
Management and administration	235,495	254,970	270,122	293,673	319,065
Personal emoluments	1,724,945	1,976,078	2,242,694	2,487,092	2,710,144
Total	3,969,094	4,658,237	5,104,436	5,486,560	5,890,396
Totals by category					
Teacher education	147,733	172,282	167,504	185,339	189,882
Education materials	85,739	262,987	171,038	119,992	210,033
Institutional infrastructure	885,025	1,013,059	1,144,314	1,153,323	1,055,676
Education standards	99,243	108,347	121,141	134,654	148,609
Institutional funding	790,914	870,513	987,623	1,112,487	1,256,987
Management and administration	235,495	254,970	270,122	293,673	319,065
Personal emoluments	1,724,945	1,976,078	2,242,694	2,487,092	2,710,144
Total	3,969,094	4,658,237	5,104,436	5,486,560	5,890,396
Totals by sector					
Pre-school	0	56,998	133,171	197,151	179,987
Elementary	779,076	821,271	858,865	913,065	949,837
Primary	1,910,521	2,352,350	2,364,783	2,598,092	2,893,865
Secondary	843,824	933,295	1,227,320	1,248,487	1,298,063
Vocational	238,422	260,894	284,499	310,173	338,102
Technical (post-Grade 12)	39,085	42,680	44,357	46,687	49,172
Teachers colleges	32,272	56,530	57,615	31,453	31,802
Other (management and administration)	125,896	134,220	133,826	141,451	149,567
Total	3,969,094	4,658,237	5,104,436	5,486,560	5,890,396

Table 8: Revenue projections, by source, 2015–19

Revenue source	Revenue (K '000s)				
	2015	2016	2017	2018	2019
GoPNG (national government)	2,841,327	3,203,903	3,564,576	3,929,762	4,332,771
GoPNG (provincial Education Function Grants and internal revenues)	133,000	118,800	126,200	134,700	143,800
GoPNG (District Services Improvement Programs/District Support Grants)	294,700	294,700	294,700	294,700	294,700
<i>Total GoPNG funding as % GDP</i>	<i>6.4</i>	<i>6.5</i>	<i>6.8</i>	<i>7.0</i>	<i>7.2</i>
Parents (project fees)	0	315,929	352,303	389,643	430,595
Donor partners	255,930	253,725	253,725	253,725	253,725
Estimated revenue from other sources	101,347	111,372	124,846	138,775	153,603
Total	3,626,304	4,298,429	4,716,351	5,141,305	5,609,194
<i>Gap</i>	<i>342,790</i>	<i>359,808</i>	<i>388,085</i>	<i>345,255</i>	<i>281,202</i>

Annex A Complete education (14 years of education)

A comprehensive overhaul to many aspects of the education system is proposed to provide all children the ability to enter school at the age of five and receive a relevant education for fourteen years, until they reach grade 12 (18 years of age). Education will not be compulsory, rather, system barriers restricting students from remaining in education will be removed, enabling access by choice. Considerable consultation and planning within the DoE and with partners and stakeholders is required to ensure all components are viable and planned implementation occurs. There are a number of interrelated components to complete education, with strategies found in different focus areas of this plan. They are summarized below.

Access and Equity

- I. The proposed 2–6–6 structure is one component of providing access to 14 years of schooling. Under this proposal current structure of elementary, primary and secondary school would be changed to better match recognised phases of learning and accommodate an extra year of school (Early Childhood Education) at entry level to ensure all students acquire important foundation skills from the age of five in readiness for further learning from the age of seven (Grade 1).
- II. A significant increase in student's places in schools is required. To achieve this a more innovative approach to planning should include consideration of combination schools. These may include
 - o 3 in 1 schools, catering for elementary, primary and secondary students all on the one campus
 - o 2 in 1 schools, catering for elementary and primary or Primary and secondary students
 - o Junior high schools
 - o Or any combination to suit the needs and the local context.

Teachers and Teaching

- III. Increased numbers of teachers required
Elementary and Secondary teachers to cater for the additional pre school year and increased enrolments once grade 8 and 10 exams are removed .
- IV. Teachers to be more flexible
 - o Secondary teachers to teach multiple subjects in smaller secondary schools
 - o Primary teachers to teach multi grade classes if required
 - o Elementary teachers to cater for foundations skills, school readiness
 - o Double shift teaching if demand requires. Teachers to receive
 - o Supplementary classes if demand requires

Learning

- V. Grade 8 and 10 exams would be removed, replacing these with a system of recognizing the level of schooling attained. Significant work will result in a more suitable system of assessment provides students and teachers with a better way to understand and use the achievement results. It will also create an improved measure of tracking system wide progress and achievement.
- VI. Teachers provided with a more informative (standards based) assessment report to improve teaching and learning process

Alternate Pathways

- VII. Access to TVET or FODE to complete 14 years of education if this option is most suitable

System Strengthening

- VIII. More innovative planning to cater for increasing student number
 - o Support for subnational planning
- IX. Improved data available for TFF and planning
- X. Improved teacher employment
- XI. Improved monitoring of process

Education system restructuring

Under a proposed school system restructuring to improve the quality of education and access, students would receive 14 years of schooling; two years in Elementary, six in primary education and six in high school. A child would begin education at the age of five, rather than the current age six, and be expected to complete secondary schooling at the age of 18. The first two years would develop the foundations literacy and numeracy skills to enable students to successfully enter more formal learning in Grade 1 (Table x and Figure x). A period of planning and consultation would be undertaken during 2015 with options for implementation developed. Implementation of the 2–6–6 system is expected to begin in 2016.

Table 9: Proposed 2–6–6 education system structure

Age	Years	Sector	Grades
5–6	2	Elementary	Pre-school, Preparatory, Elementary
7–12	6	Primary	1–6
13–18	6	High school/TVET/FODE	7–12
Total	14		

The aim would be to introduce the country’s first formal early childhood sector, with a new early learning year, in line with the country’s UNESCO commitment. 2–6–6 would more closely match the internationally-recognised phases of children’s educational development and ensure that quality foundation skills are learnt in an early childhood environment to provide foundations for more formal learning.

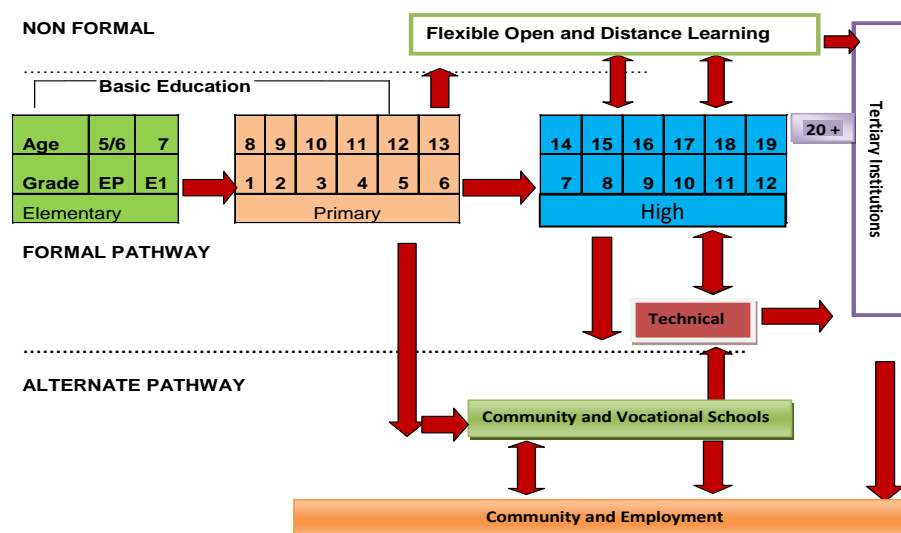
Progression through 14 years of education would be achieved by gradually abolishing the national grade transition examinations at the ends of Grades 8 and 10. Students would instead be assessed at the ends of Grades 3, 8 and 10 using standard tests. There would be one national examination at the end of Grade 12, to control access to higher education.

The proposed structure would not discriminate against, categorise or classify students. It would provide various learning pathways, through streaming at the ends of Grade 6 and Grade 10.

As there are 3,543 primary schools and only 219 secondary schools, 2–6–6 could not be implemented directly in existing elementary, primary and secondary schools. Secondary schools could not be expanded to cater for all primary school students transitioning to the new Grade 7 under 2–6–6. Existing primary schools have the land and infrastructure (teacher houses, classrooms, toilets, libraries, etc.) to expand access to secondary education in Grades 7–9 under 2–6–6. However, primary schools could not handle Grades 1 to 6 plus lower secondary (Grades 7–9), so the 7,298 elementary schools, which have land and infrastructure, would add one additional year.

It is proposed that the 219 existing secondary schools would be named high schools.

Figure 13: Proposed 2–6–6 education system structure

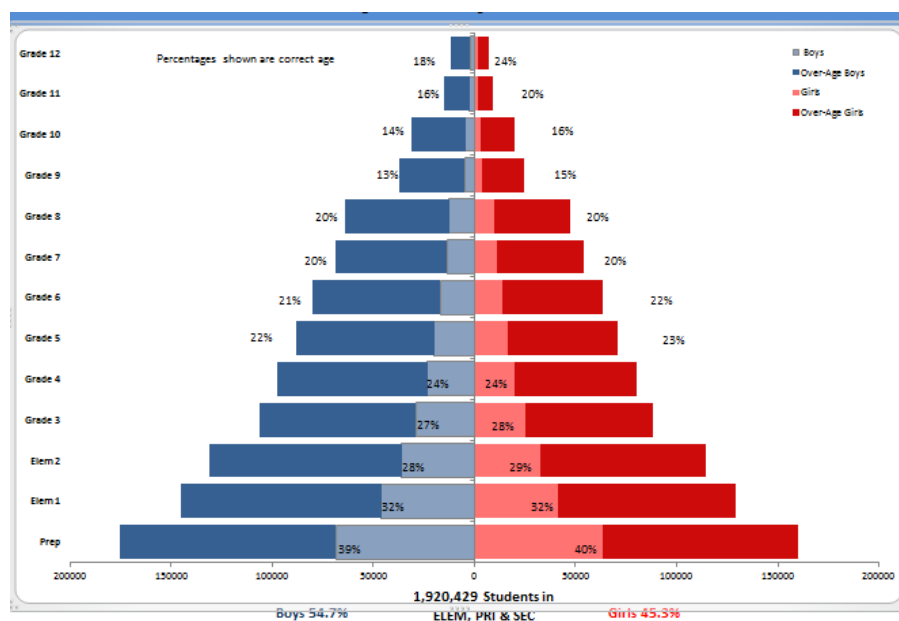


Annex B Additional data

Table 10: Qualifications of teachers, by sector and gender, minimum required highlighted (% of total qualifications)

Qualification	Elementary		Primary		Secondary		Vocational		Total		TOTALS
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Certificate	20.51	16.20	6.84	5.11	0.68	0.29	0.37	0.11	28.41	21.70	50.11
Diploma	0.08	0.06	19.79	18.77	2.17	1.21	0.97	0.66	23.01	20.71	43.72
Degree	0.00	0.02	0.41	0.20	3.19	2.19	0.08	0.06	3.68	2.47	6.15
Master's	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.01	0.02
Total	20.60	16.28	27.04	24.08	6.05	3.70	1.42	0.83	55.11	44.89	100.00

Figure 13: Student population, by grade, gender and overage percentage, 2014



Source: EMIS, NDoE

Table 11: Number of operating schools, by province and by sector, 2014

Province	Elementary	Primary	Secondary	Vocational	Total
Autonomous Region of Bouganville					
Bougainville	318	220	11	3	552
Central	304	188	12	3	507
East New Britain	360	158	12	8	538
East Sepik	401	240	16	8	665
Eastern Highlands	432	220	14	5	671
Enga	409	146	12	10	577
Gulf	129	83	6	3	221
Kiunga Lake Murray	173	76	4	1	254
Madang	520	252	9	7	788
Manus	117	90	4	1	212
Milne Bay	441	193	9	8	651
Morobe	738	333	17	7	1,095
National Capital District	42	38	11	5	96
New Ireland	343	141	9	5	498
Northern	276	111	4	4	395
Sandaun	316	212	10	8	546
Simbu	349	143	17	8	517
Southern Highlands	686	255	17	8	966
West New Britain	292	149	5	3	449
Western Highlands	436	194	17	7	654
Western	216	101	3	2	322
Total	7,298	3,543	219	114	11,174

Source: EMIS, NDoE

Table 12: Student:teacher ratio and teachers per school, by province and sector, 2014

Province	Gross student:teacher ratio	Teachers/school			
		Elementary	Primary	Secondary	Vocational
Autonomous Region of Bouganville	28.6	2.6	6.8	19.6	10.7
Central	32.6	2.5	6.0	20.8	9.0
East New Britain	31.5	2.1	10.3	28.6	17.5
East Sepik	46.9	1.9	7.2	17.8	7.0
Eastern Highlands	45.5	2.4	9.7	28.4	14.0
Enga	50.0	2.3	9.9	24.2	6.2
Gulf	47.1	1.8	4.1	11.5	5.3
Kiunga Lake Murray	29.4	1.9	5.7	28.3	22.0
Madang	40.6	1.9	9.1	26.1	7.4
Manus	19.3	2.3	4.9	25.5	12.0
Milne Bay	34.2	1.8	5.9	22.6	6.8
Morobe	32.9	2.5	9.6	28.6	14.3
National Capital District	38.7	12.4	30.5	34.5	23.8
New Ireland	27.7	1.8	6.6	16.3	8.6
Northern	50.5	1.4	5.1	21.8	8.5
Sandaun	36.2	1.7	5.0	14.1	4.5
Simbu	33.9	2.6	9.3	18.0	12.8
Southern Highlands	38.1	2.3	9.7	21.5	8.0
West New Britain	34.7	2.2	8.4	24.2	16.0
Western Highlands	44.2	2.8	13.4	28.3	11.6
Western	40.7	1.6	4.1	17.3	9.5

Source: EMIS, NDoE

Table 13: Student enrolment, by province and gender, 2014

Province	Male		Female		Total
Autonomous Region of Bouganville	38,265	52%	35,236	48%	73,501
Central	38,216	54%	32,440	46%	70,656
East New Britain	48,310	54%	41,644	46%	89,954
East Sepik	72,647	54%	60,931	46%	133,578
Eastern Highlands	94,375	56%	73,091	44%	167,466
Enga	78,714	57%	58,301	43%	137,015
Gulf	17,505	57%	13,341	43%	30,846
Kiunga Lake Murray	14,765	56%	11,725	44%	26,490
Madang	80,458	56%	64,389	44%	144,847
Manus	8,380	53%	7,457	47%	15,837
Milne Bay	38,374	51%	36,147	49%	74,521
Morobe	102,296	55%	82,780	45%	185,076
National Capital District	44,667	53%	39,947	47%	84,614
New Ireland	25,391	53%	22,820	47%	48,211
Northern	29,551	54%	24,946	46%	54,497
Sandaun	36,879	57%	27,802	43%	64,681
Simbu	50,853	57%	38,625	43%	89,478
Southern Highlands	97,931	57%	73,809	43%	171,740
West New Britain	38,400	53%	33,725	47%	72,125
Western Highlands	105,752	55%	86,803	45%	192,555
Western	18,640	55%	15,432	45%	34,072
Total	1,080,369	55%	881,391	45%	1,961,760

Source: EMIS, NDoE

Table 14: Districts without vocational centres, 2014

Provinces	Number without vocational centres	Districts Names
East New Britain	1	Rabaul
Eastern Highlands	3	Daulo, Henganofai, Ungai-Bena
Southern Highlands	1	Imbongu
Central	2	Goilala, Kairuku-Hiri
National Capital District	5	Gerehu, Boroko-Korobosea, Hanuabada, Laloki-Napanapa, Bomana
East Sepik	2	Wosera Gawi, Yanoru Sausia
Madang	2	Raicoast, Usine Bundi
Morobe	1	Kabwum
Total	17	

Sources: TVET, inspection reports (2014), TFF subsidy listing (2014), Southern/Highlands regional/provincial coordinators' reports, managers/teachers (2014/15), NDoE

Table 15: Toilets, by sector and gender, 2013

	Permanent		Semi-permanent		Bush material		Total		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
Elementary	647	659	621	592	4,604	4,499	5,872	5,750	11,622
Primary	2,028	2,045	1,361	1,325	4,177	3,925	7,566	7,295	14,861
Secondary	724	660	134	88	246	179	1,104	927	2,031
Vocational	121	133	33	37	82	55	236	225	461
Total	3,520	3,497	2,149	2,042	9,109	8,658	14,778	14,197	28,975

Source: EMIS, NDoE

Table 16: Students with special needs, by grade, 2013

Grades	Total enrolled students	Students with special needs	
		Number	% of total students
Preparatory	312,551	3,661	1.17
E1 & Grade 1	268,254	3,059	1.3
E2 & Grade 2	241,123	2,721	1.23
Grade 3	196,362	1,813	0.92
Grade 4	174,757	1,758	1.01
Grade 5	156,963	1,798	1.15
Grade 6	139,863	1,593	1.14
Grade 7	118,969	1,425	1.2
Grade 8	107,964	1,325	1.23
Grade 9	55,879	388	0.69
Grade 10	48,197	403	0.84
Grade 11	21,470	224	1.04
Grade 12	16,766	213	1.27
Vocational	31,546	552	1.75
Total	1,890,664	20,933	1.11

Source: EMIS, NDoE

Table 17: Students with special needs registered with Special Education Resource Centre (SERC), by grade, 2013

Sector	Students registered with SERC		Students not registered with SERC		Total
	Male	Female	Male	Female	
Elementary	1,376	1,223	3,788	3,054	9,441
Grades 3–8	1,074	908	4,186	3,544	9,712
Grade 9–12	187	255	399	387	1,228
Vocational	137	198	11	206	552
Total	2,774	2,584	8,384	7,191	20,933

Source: EMIS, NDoE

Annex C Enrolment projections for period 2015–24

The following projections are modelled using the current trends and 2014 enrolment data and supplied in order to provide a ten year picture of enrolments in the NES.

It is anticipated that in 2019 the system will hit a level of maturity with overall enrolments no longer growing at rates in excess of population growth. This assumes that children entering school (Preparatory) from 2015 are increasingly of the correct age group. That would result in elementary enrolments peaking in 2016, after which the numbers would fall gradually as the large number of over-age students gradually leaves school.

The trend in the elementary sector would feed into the primary sector, moderating growth from 2019 onwards. The secondary sector is likely to have continued relatively-rapid growth, until the effect of the elementary boom fully passes through the system. There is also an assumption of improved transition rates from primary to secondary.

The vocational sector is assumed to grow at an annual 5 per cent rate throughout. In effect the FODE growth rate will converge to the same assumption over time.

The following tables are created using the 2015 school structure.

Table 18: Projected student enrolments, 2015–24

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Pre-school	-	-	64,155	132,357	204,798	211,258	217,922	224,796	231,887	239,201
Preparatory	331,186	329,110	327,033	324,956	322,879	320,802	318,725	316,648	314,572	312,495
Elementary	911,679	953,025	942,206	933,075	923,943	914,812	905,681	896,550	887,418	878,287
Annual change		5%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
E1 and G1	328,038	322,512	318,819	315,126	311,433	307,741	304,048	300,355	296,663	292,970
E2 and G2	252,454	301,403	296,354	292,993	289,631	286,269	282,908	279,546	276,184	272,823
Primary	947,641	991,539	1,068,009	1,132,529	1,189,002	1,234,513	1,272,394	1,298,929	1,289,918	1,279,365
Annual change		5%	8%	6%	5%	4%	3%	2%	-1%	-1%
G3	196,384	204,487	247,151	245,974	249,044	246,186	243,329	240,471	237,614	234,757
G4	183,324	185,740	194,263	234,793	233,675	236,592	233,877	231,162	228,448	225,733
G5	167,645	173,387	176,453	184,550	223,054	221,992	224,762	222,183	219,604	217,025
G6	150,020	158,559	164,718	167,630	175,322	211,901	210,892	213,524	211,074	208,624
G7	134,783	141,888	150,631	156,482	159,248	166,556	201,306	200,347	202,848	200,520
G8	115,485	127,477	134,794	143,099	148,658	151,286	158,228	191,241	190,330	192,705
Secondary	167,619	176,800	195,559	215,516	242,302	265,948	279,814	292,926	321,357	344,947
Annual change		5%	11%	10%	12%	10%	5%	5%	10%	7%
G9	62,506	66,750	75,976	82,763	93,015	96,628	98,336	102,849	124,306	124,306
G10	58,835	59,381	63,413	72,178	78,625	88,364	91,796	93,419	97,706	118,091
G11	23,732	28,123	29,453	32,594	39,698	43,244	48,600	50,488	51,381	53,738
G12	22,545	22,545	26,717	27,980	30,964	37,713	41,082	46,170	47,964	48,811
Vocational	43,398	45,567	47,846	50,238	52,750	55,387	58,157	61,065	64,118	67,324
Annual change		5%	5%	5%	5%	5%	5%	5%	5%	5%
FODE	13,104	14,035	14,965	15,896	16,826	17,757	18,687	19,618	20,548	21,479
Annual change		7%	7%	6%	6%	6%	5%	5%	5%	5%
Total	2,083,440	2,180,965	2,332,740	2,479,610	2,629,621	2,699,675	2,752,655	2,793,882	2,815,245	2,830,603
Annual change		5%	7%	6%	6%	3%	2%	1%	1%	1%

Source: Statistics Branch, NDoE, 2015

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