



PAPUA NEW GUINEA

EDUCATION SECTOR DEVELOPMENT PLAN 2023 – 2027

*“Advancing Quality Education,
Fostering Efficiency, Innovation, and
Entrepreneurship”*



JOINTLY FORMULATED BY THE
MINISTRY OF EDUCATION AND THE MINISTRY OF HIGHER EDUCATION, RESEARCH, SCIENCE AND TECHNOLOGY, THIS
EDUCATION SECTOR DEVELOPMENT PLAN COMMEMORATES PAPUA NEW GUINEA'S 50TH ANNIVERSARY AND IS ALIGNED
WITH THE MEDIUM TERM DEVELOPMENT PLAN IV (2023–2027).



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VISION, MISSION AND GOAL

The Vision, Mission, and Goal statements articulate a clear and purposeful direction for the development of education in Papua New Guinea. They reflect a commitment to fostering a well-educated, skilled, and innovative citizenry. The *Vision* outlines the aspiration for empowered and responsible individuals; the *Mission* details the strategic approach through quality education and infrastructure; and the *Goal* focuses on nurturing future-ready citizens who will drive national progress and prosperity. Together, these statements form a cohesive framework for national educational advancement.



VISION

OUR VISION IS FOR PAPUA NEW GUINEANS TO BECOME HIGHLY EDUCATED, LITERATE, SKILLED, AND RESOURCEFUL, EMPOWERED BY STRONG VALUES OF CITIZENSHIP AND A POSITIVE OUTLOOK.



MISSION

OUR MISSION IS TO PROVIDE EXEMPLARY EDUCATION THROUGH STRATEGIC INVESTMENT IN A SKILLED AND COMMITTED WORKFORCE, THE DEVELOPMENT OF RELEVANT AND RIGOROUS CURRICULA, AND THE IMPLEMENTATION OF COMPREHENSIVE SKILLS TRAINING PROGRAMS, ALL UNDERPINNED BY SUSTAINABLE AND RESILIENT LEARNING RESOURCES AND INFRASTRUCTURE.



GOAL

OUR GOAL IS TO CULTIVATE A GENERATION OF EDUCATED, SKILLED, PRODUCTIVE, AND INNOVATIVE CITIZENS WHO WILL CONTRIBUTE TO A PROSPEROUS FUTURE FOR PAPUA NEW GUINEA.

JOINT MINISTERIAL STATEMENT



Hon. Kinoka Hotune Feo, MP
Minister for Higher Education, Research,
Science, Technology & Sport



Hon. Lucas Dawa Dekena, MP
Minister for Education

We are delighted to present the *Education Sector Development Plan (ESDP) 2023-2027* for the Ministry of Education (MoE) and Ministry of Higher Education, Research, Science & Technology (MHERST). This is the medium-term development ‘Road Map’ for the Education Sector through which education services will be delivered. It is the Education Sector’s contribution to the objectives of the *Papua New Guinea (PNG) Vision 2050* and the *Medium-Term Development Plan (MTDP) IV, 2023-2027* which are: (i) *growing our economy to K200 billion by 2030*; (ii) *creating 1 million additional jobs*; and (iii) *improving the quality of life for all our people*.

We are also proud to state that the ESDP is a significant accomplishment of the education sector as a whole. It is the first time that the two ‘education’ ministries responsible for providing Papua New Guineans with education and skills training have collaborated to create one plan that aligns with the medium-term education priorities of the Government as outlined in the MTDP IV 2023-2027. This plan provides the platform to implement the Strategic Priority Areas (SPA) on quality education and human capital (SPA #4) of the MTDP IV. The plan reflects the collective efforts of the two ministries that have openly discussed the challenges and achievements of both the basic education and tertiary education sectors, and developed investment programmes as part of the ESDP to improve the education indicators of the country over time.

Education continues to be one of the main priorities of the government since it is vital for the continuous development of our human resources. The main goal of the ESDP is ‘*to cultivate a generation of educated, skilled, productive, and innovative citizens.*’ This goal supports the Government’s commitment to increase access to quality education, skills training, to sustain the supply of a skilled labourforce representative of a well-educated population. Apart from capturing the needs of the standard basic education, and higher and technical education sub-

sectors, the ESDP also embraces the passionate education agendas of the Prime Minister, the Hon. James Marape, who consistently emphasises investments in Flexible Open & Distance Education (FODE), National Schools of Excellence (NSOE), Science, Technology, Engineering and Mathematics (STEM), and Technical Education and Vocational Training (TVET).

The ESDP is to be considered as the education sector's investment plan for 2023-2027 that expands on the MTDP IV's budget framework for the Deliberate Intervention Programs (DIPs) of SPA #4 (*Quality Education and Human Capital*). The SPA #4 has been 'allocated a total of K4.19 billion to be shared in the medium term amongst five main DIPs, which are:

1. Early Childhood Education (ECE) - K85 million;
2. Quality Basic Primary and Secondary Education - K924 million;
3. Tertiary Education - K1.264 billion;
4. Technical Vocational Education and Training (TVET) - K1.06 billion; and
5. Quality Training and Accreditation - K857.1 million.

Within the ESDP, the five years' K4.19 billion MTDP IV budget allocation for SPA #4 and its related DIPs is disbursed into investment programs and projects to support all the education sub-sectors, namely ECE and pre-school; primary schools; secondary schools; NSOE; FODE; TVET; inclusive education; literacy education; library and archives; the teaching service workforce; teacher colleges; nursing colleges; universities; agricultural colleges; specialised colleges; business colleges; technical colleges; polytechnic institutes and research, science, technology and innovation (RSTI).

The Plan has realistic indicators and annual targets adapted from the MTDV IV to guide investments by the Government and development partners during the period of the ESDP and the MTDP IV. The indicators and annual targets will form the basis of the monitoring and evaluation framework to enable the tracking of progress and implementation of the two plans. All partners of the Ministries of Education and HERST are encouraged to work together to implement this Plan. As with the MTDP IV, the ESDP is to be implemented through robust and meaningful partnership arrangements. Furthermore, an enhanced financing of the ESDP is welcomed but will require a holistic, collaborative and coordinated approach to include international donors and development partners, provincial and local level governments, churches, private sector, and other key stakeholders.

We call upon all provinces and districts to incorporate the national education priorities and targets into their provincial and district plans. This is to ensure our limited funding resources are utilised in an efficient manner to achieve the optimal objectives and national development targets for our education indicators, whilst implementing provincial and district plans.

All stakeholders and development partners are invited to partner with the education lead agencies to make additional investments where necessary and execute the development projects within the period of the ESDP and the MTDP IV, 2023-2027. As Ministers responsible for the education sector, we will ensure more effective sector coordination to implement the ESDP, and that coordination is strengthened with a workable consultative governance mechanism that links up with the National Executive Council (NEC). Furthermore, we pledge our support to mobilise resources at our levels to address our ministries' challenges highlighted in this Plan. We appeal to all those involved in executing this Sector Plan to ensure that our citizens access and benefit from the quality education that we have promised and plan to deliver.

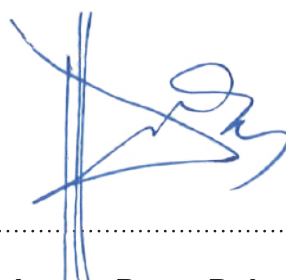
We pay tribute to late Minister Jimmy Uguro (MP). In his term as the Education Minister, he has taken the lead to integrate ESDP 2023 - 2027, MTDP IV 2023 - 2027 and Education Transformation Vision (ETV) 2025 - 2075 to chart the roadmap for the general education system. We pay our respect for his wisdom and contributions to the People of this country and the Ministry of Education in ensuring education vision is fulfilled starting with this first five-year Education Sector Development Plan.

We acknowledge officers from the Ministry of Education (DoE,OLA and TSC), Ministry for HERST (DHERST and PNGST), Department of Prime Minister & National Executive Council and Department of National Planning and Monitoring who have contributed towards the development of ESDP 2023 - 2027 on education for human resource development in PNG.

‘Happy implementation for a Prosperous Educated Papua New Guinea!’

A blue ink signature consisting of several loops and a long horizontal stroke at the bottom.

Hon. Kinoka Hotune Feo, MP
Minister for Higher Education, Research,
Science, Technology & Sport

A blue ink signature with a prominent vertical line on the left and a series of loops on the right.

Hon. Lucas Dawa Dekena, MP
Minister for Education

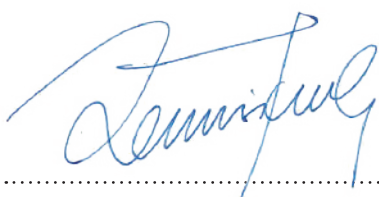
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ACRONYMS

AD	:	Administration Division
AHC	:	Australian High Commission
AOFP	:	Annual Operational and Financial Plan
BMP	:	Behaviour Management Policy
BoM	:	Board of Management
CBTA	:	Competency Based Training Assessment
CDD	:	Curriculum Development Division
CCVE	:	Citizenship and Christian Values Education
CSNI	:	Callan Studies National Institute
CSMT	:	Curriculum Standards Monitoring Test
DDA	:	District Development Authority
DFAT	:	Department of Foreign Affairs and Trade
DHERST	:	Department of Higher Education, Research, Science and Technology
DIPs	:	Deliberate Interventions Programmes
DPMNEC	:	Department of Prime Minister and National Executive Council
DNPM	:	Department of National Planning and Monitoring
DP	:	Development Partner
ECE	:	Early Childhood Education
EFA	:	Education for All
EMIS	:	Education Management Information System
ESDP	:	Education Sector Development Plan, 2023-2027
ESDPSC	:	Education Sector Development Plan Steering Committee
ESTWG	:	Education Sector Technical Working Group
EU	:	European Union
FODE	:	Flexible Open Distance Education
GPE	:	Global Partnership in Education
GPI	:	Gender Parity Index
GoPNG	:	Government of Papua New Guinea
GPA	:	Grade Point Averages
GTFS	:	Government Tuition Fee Subsidy
HEI	:	Higher Education Institution
HTESIP	:	Higher and Technical Education Strategic Implementation Plan
ICT	:	Information Communication Technology
IERC	:	Inclusive Education Resource Centres
JICA	:	Japan International Cooperation Agency
KRAs	:	Key Result Area
LLG	:	Local-Level Governments
MHERST	:	Ministry for Higher Education, Research, Science and Technology
MoE	:	Ministry of Education
MTDP	:	Medium Term Development Plan, IV, 2023-2027
NC	:	National Certificate

NDoE	:	National Department of Education
NEC	:	National Executive Council
NEP	:	National Education Plan
NGO	:	Non-Governmental Organisation
NHTEP	:	National Higher & Technical Education Plan
NHTEMIS	:	National Higher and Technical Education Management Information System
NLAS	:	National Literacy Awareness Secretariat
NRI	:	National Research Institute
NSDA	:	National Skills Development Agency
NSOE	:	National Schools of Excellence
OOSC	:	Out-of-School Children
OLA	:	Office of Library and Archives
PIP	:	Public Investment Program
PILNA	:	Pacific Islands Literacy and Numeracy Assessment
PNGEI	:	PNG Education Institute
PNG STS	:	Papua New Guinea Science and Technology Secretariat
PNG TSC	:	Papua New Guinea Teaching Service Commission
PPP	:	Public Private Partnership
R&D	:	Research and Development
RSTI	:	Research, Science, Technology and Innovation
SBC	:	Standards-Based Curriculum
SDG	:	Sustainable Development Goals
SLIP	:	School Learning Improvement Plans
SPA	:	Strategic Priority Area
STEM	:	Science, Technology, Engineering and Mathematics
TSC	:	Teaching Service Commission
TVET	:	Technical and Vocational Education Training
UNICEF	:	United Nations International Children's Emergency Fund
UOG	:	University of Goroka
VET	:	Vocational Education and Training
WaSH	:	Water Sanitation and Hygiene



CERTIFICATE OF ALIGNMENT TO MTDP IV (2023-2027)

I, Mr. Koney Samuel, by virtue of the powers vested in me as
Secretary for the Department of National Planning and Monitoring
and in compliance with the Papua New Guinea Planning
and Monitoring Responsibility Act 2016, hereby
approve and certify the
**EDUCATION SECTOR DEVELOPMENT PLAN
(2023-2027)**
for implementation.

**KONEY SAMUEL
SECRETARY**

DEPARTMENT OF NATIONAL PLANNING AND MONITORING

25 NOVEMBER 2024

SERIAL NO: MTDP IV-S009



EXECUTIVE SUMMARY

This *Education Sector Development Plan 2023-2027 (ESDP 2023-2027)* is the first of its kind for Papua New Guinea (PNG) that provides the overarching medium-term development plan for the education sector as a whole. The various agencies that provide education services have been operating without an all-encompassing holistic and inclusive education sector development plan since independence, despite having the Vision 2050 and agency specific development plans. The ESDP therefore lays out key development strategies and linkages for all levels of education, from early childhood learning to higher and technical education.

The ESDP conforms to the national planning framework and the call by the Ministry of National Planning and Monitoring to have sector plans developed and aligned to the Medium-Term Development Plans (MTDP) that outline five (5) year development priorities of the national government.

The theme of the ESDP 2023-2027, *“Advancing Quality Education, Fostering Efficiency, Innovation, and Entrepreneurship”* is aligned to the vision and objectives of PNG Vision 2050, and the MTDP IV’s Strategic Priority Area (SPA) number 4, *Quality Education and Skilled Human Capital*. This alignment is necessary to enable the education sector to contribute to the government’s intention to grow the economy through the development and investment in its own national educated and skilled human resources and workforce.

The implementation of the ESDP will usher PNG towards achieving the goal of *PNG Vision 2050* to become *“a Smart, Wise, Fair, Healthy, and Happy Society by 2050”*. The ESDP is designed to progress the Vision 2050 objectives for education which are: ‘... to achieve free, quality and universal basic education for all school-aged children from early childhood education to Grade 12 by 2050; and further provide quality tertiary education and skilled human resources that will respond to the manpower needs of the country.

The main goal of the ESDP 2023-2027 *‘is to cultivate a generation of Educated, Skilled, Productive, and innovative citizens who will contribute to a prosperous future for Papua New Guinea’* by implementing the investment programmes outlined in Part 3 of this Plan. The investment programmes intend to utilise the five years’ K4.19 billion MTDP IV budget allocation for SPA 4 and its related Deliberate Intervention Programs (DIP). The investment programmes are linked to the five main DIPs and budgets of the SPA 4 (MTDP IV) which are:

- DIP 4.1: Early Childhood Education (ECE - MTDP IV: five-year budget tag of K85 million);
- DIP 4.2: Quality Basic Primary and Secondary Education (MTDP IV: five-year budget tag of K924 million);
- DIP 4.3: Tertiary Education (MTDP IV: five-year budget tag of K1.264 billion);
- DIP 4.4: Technical Vocational Education and Training (TVET - MTDP IV: five-year budget tag of K1.06 billion); and
- Quality Training and Accreditation (MTDP IV: five-year budget tag of K857.1 million)

The K4.19 billion MTDP IV budget is to be shared amongst the education sub-sectors listed in Table i below (refer also to Part 3 for more details).

Table I: Education sub-sectors programmed for funding in 2023-2027

Education Sub-Sectors	
Ministry of Education (Basic-General Education)	Ministry of Higher Education, Research, Science & Technology (Higher and Technical Education)
1. Early Childhood Education (ECE)	1. Technical and Business Colleges, and Polytechnic Institutes
2. Pre-School	2. Agriculture and Specialised Colleges
3. Primary Education	3. Nursing Colleges
4. Secondary Education	4. Teacher Colleges
5. Vocational Schools	5. Universities
6. Technical Secondary Schools	6. HERST Governance
7. National School of Excellence (NSOE)	7. Research, Science, Technology & Innovation
8. Flexible Open Distance Education (FODE)	
9. Inclusive Education	
10. Libraries and Archives	
11. Teaching Service Commission	
12. Literacy Awareness / Literacy Education	
13. Basic Education Governance	

Given that this is a development plan, significant development projects are included, to complement and enhance ongoing recurrent funding programs. The development projects range from: infrastructure development and rehabilitation; capacity building for teachers, trainers and academics; curriculum and skills training packages; digital teaching and learning methodologies and facilities; research, innovations, researchers and scientists; technological development and equipment; education management information systems; targeted scholarships and other critical initiatives. The investment programmes and development projects aim to achieve the stated goal of the ESDP - i.e., *‘to cultivate a generation of educated, skilled, productive, and innovative citizens’* - who then will contribute to ‘growing PNG’s economy’ (MTDP IV theme).

Part 3 contains more details of these development programs and projects. They are programmed in logical frameworks to address the challenges of the education sector. These challenges are recurring pressing concerns that also reflect insufficient investment in essential resources such as human capital, infrastructure, quality-assured curricula, and poor access to technology. Ineffective coordination of inter-governmental agencies and lack of strong partnerships with industries has resulted in underutilisation of resources and shortages in certain skilled workforces. Another major challenge for the education sector is the high cost of financing education across the country that has not only dramatically increased pressure on institutions but also affected the ability of students to afford education.

In essence, the ESDP 2023-2027 discusses the current context of the PNG education system and accounts for the challenges that are faced in the entire education sector. The Plan places emphasis on well-trained and highly skilled teachers, trainers and academics who implement the curriculum; early childhood education; primary education; high and secondary education; technical high and technical secondary; vocational education; FODE education; inclusive education; national schools of excellence; the libraries and archival services; tertiary education

and the research, science, technology and innovation (RSTI).

Universities, research institutes and RSTI development programmes and projects have their place in this ESDP. Vital to improving and increasing the RSTI capacity in the country, the universities and research institutions need to facilitate research for relevance and quality. Through the implementation of the investment programmes, research and science recommendations will become consistent and increasingly available for policy direction, policy review and development from 2024 onwards.

The ESDP will be funded by the Government of PNG through the annual (capital) budget process and support of development partners. Hence, the financing of the Plan requires a holistic and collaborative approach to include international donors and development partners, provincial and local level governments, churches, the private sector, and other key stakeholders. The ESDP is to be the investment platform or guide for all partners in education to mobilise resources in a coordinated manner to address the challenges delineated in this plan. The ESDP, like the MTDP IV, embraces the principle of impactful partnerships and collaborations. All stakeholders and development partners are invited to partner with the education lead agencies to make additional investments where necessary and execute the development projects within the period of the Plan.

The ESDP will be implemented by the five education lead agencies which are the National Department of Education (NDoE); Department of Higher Education, Research, Science & Technology (DHERST); the Teaching Service Commission (TSC); the Office of Library and Archives (OLA) and the PNG Science & Technology Council Secretariat. Prudent and efficient implementation and management of funds in a period of severe financial cash-flow constraints will be maintained to ensure the goals and objectives of the investment programs are achieved. This includes programme and project implementation, management, governance, monitoring, evaluation and reporting of the ESDP at all levels.

Following the guidance of the MTDP IV (pp.48-51), a coordinating mechanism and structure will be established with relevant terms of reference to ensure efficiency, effectiveness and equity, and achievement of the ESDP goal. The coordinating mechanism will have representatives from all responsible agencies working together to implement the ESDP. At the highest level, the ESDP Steering Committee (ESDPSC) will be established to provide oversight, directives, directions and policy advice relating to the investments and implementation of the ESDP. The ESDPSC will be supported with technical roles in planning, budgeting, monitoring, evaluation and reporting through an Education Sector Technical Working Group (ESTWG) and an ESDP Coordination Unit. (See Part 5 for more details).

Officers representing each agency in the ESTWG will coordinate the collection of data from their respective agencies and work with the coordinating unit to produce timely monitoring and evaluation reports for the ESDPSC. Agencies will continue the standard practice of submitting quarterly reports to key central agencies in line with the standard quarterly reporting requirements of the Departments of Treasury, Finance and National Planning & Monitoring. The reports will allow higher-level decision-makers to make well-informed decisions relating to implementation challenges and high-level policy directives.

The collection of data to report on the progress and achievements of the ESDP will be guided by the ESDP Monitoring, Evaluation and Learning Framework (MELF). The MELF is linked to the three main tiers of the logical frameworks in Part 3. The three tiers are the indicators, key result areas (KRA) and investment budget and expenditure. The MELF is outlined in Part 6 of this Plan.



Young lad excited for school, Boroko Primary School, Port Moresby

PART

1

Introduction



**EDUCATION SECTOR DEVELOPMENT PLAN
2023 - 2027**

PART 1: INTRODUCTION

1.1 PURPOSE

The purpose of having this Plan developed is to respond to the call by the Government for the country to have central sector plans that provide the overarching view of the country's development plan for each sector, hence this Education Sector Development Plan 2023-2027 for the education sector.

The ESDP is the first ever such document to have been developed for the sector since Independence. It highlights the national education strategies for implementation together with the major outcome indicators for benchmarking and monitoring progress. This allows for a clear understanding and connectivity of the indicators and strategies among the major education providers and sub-sectors. These indicators and strategies are aligned to the Medium-Term Development Plan IV 2023 - 2027 (MTDP IV) for planning and budgeting to support the implementation and realisation of the national education outcomes for the country.

Just as institutions rise and fall with their leader, the socioeconomic health of Papua New Guinea will rise and fall with the quality of education it provides to its people. It is undeniably true that the Education Sector will propel PNG's economy forward when all non-renewable resources are depleted.

As the world advances in the fields of science and technology, it presents a dynamic and challenging future for PNG. The Government must be prepared to provide its people with access to high quality education that is directly relevant to solving development problems.

The education sector represents the perfect starting point from which to respond in a proactive and responsible manner in addressing these challenges. This sector must be supported with all the required capacity to achieve its goals in terms of quality, access and relevance. Support provided to this sector will alleviate development challenges and energise efforts to achieve the development aspirations set out in this document, Vision 2050, MTDP IV, and the Sustainable Development Goals.

1.2 STRUCTURE

Apart from the preliminary sections, the ESDP consists of six main parts:

Part 1: Introduction

Part 2: Situational Analysis

Part 3: Aligning ESDP Sector Logical Frameworks (Logframes) to the MTDP IV

Part 4: Financing of the Plan

Part 5: Managing the Implementation of the Plan; and

Part 6: Monitoring, Evaluation, Reporting and Learning.

1.3 CONSULTATION

Following the Prime Minister Hon. James Marape's directive in 2019 for the development of sector plans, the Department of Prime Minister and National Executive Council (DPMNEC) and Department of National Planning and Monitoring (DNPM) took the lead in coordinating and facilitating the development of the ESDP with the involvement of the Department of Higher Education, Research, Science and Technology (DHERST), PNG Science and Technology Council Secretariat and all agencies within the Ministry of Education (MoE) - National Department of Education (NDoE), Teaching Service Commission (TSC) and the Office of Library & Archives

(OLA). The DPMNEC and DNPM have both provided firm leadership to successfully complete the consultations and development of the ESDP.

1.4 LEGISLATIVE FRAMEWORKS

Papua New Guinea's Education System is governed by a number of legislative frameworks of which two govern the Basic Education:

1. *Education Act 1983 as amended Education (Amendment) Act 2020; and*
2. *Teaching Service Act 1988*

These pieces of legislation govern the Basic Education, and Vocational Training and teachers respectively.

With regard to the higher and technical education, its effective operation, management, and coordination is governed by both the *Higher Education (General Provisions) Act 2014* as amended 2020 and the *Higher and Technical Education Reform Act 2020*, together with respective Acts of Parliament for the seven (7) existing Universities and Specialised Institutions.

MHERST comprises the Department of Higher Education, Research, Science & Technology (DHERST), PNG Science & Technology Council, Research Institutions, Universities and Post-Secondary Colleges. These institutions are governed under their respective Acts:

1. *University of Papua New Guinea (Amendment) Act 2020 Papua New Guinea University of Technology (Amendment) Act 2020*
2. *Papua New Guinea University of Natural Resources and Environment (Amendment) Act 2020*
3. *University of Goroka (Amendment) Act 2020*
4. *Divine Word University Act 1999*
5. *Pacific Adventist University Act 1999*
6. *Western Pacific University Act 2014*
7. *Maritime College Act 1976*
8. *National Research Institute 1993 (as amended)*
9. *National Agricultural Research Institute 1996*

Recent legislative reform in the higher and technical education sub-sector stems from the Government's directive through the National Executive Council Decision No. NG25/2017 to reform and unify the sub-sector by addressing the issue of fragmentation and improving coordination. A significant outcome of the reform was the transfer of institutions and functions pertaining to higher and technical education from various ministerial portfolios to the Ministry of Higher Education, Research, Science, and Technology (MHERST).

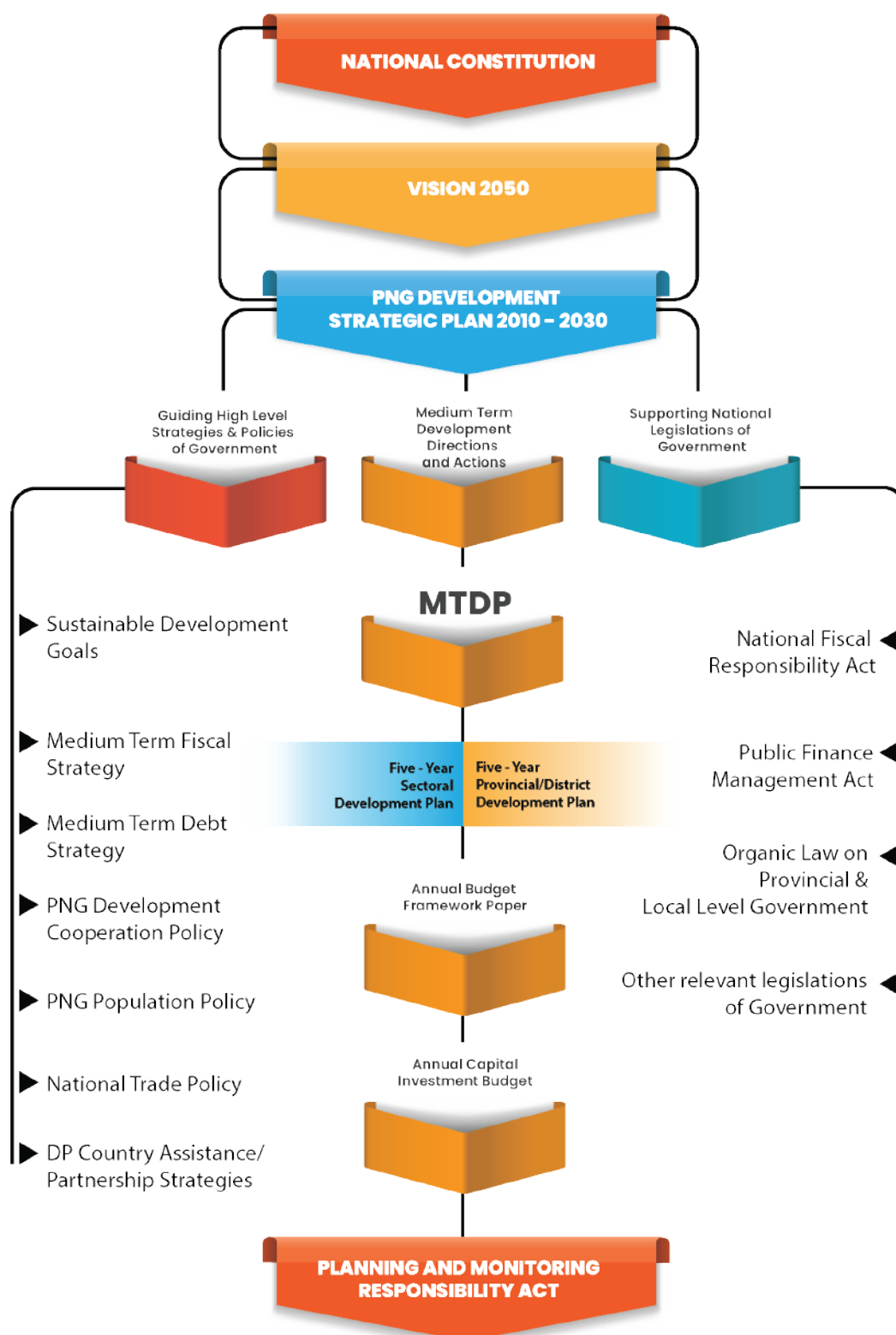
The PNG Science and Technology Council established by the PNG Science and Technology Act 1992 is responsible for coordinating the Government research institutes by providing general policy guidance for research, directions, and assessment of quality and research output.

1.5 RATIONALE

When the Medium-Term Development Plan III (2018-2022) was launched in 2018, the ESDP was not in existence. Hence the development of ESDP 2023-2027 is necessary and is in line with the *PNG Planning and Monitoring Responsibility Act 2016* which mandates the MTDP as the substantive national development plan according to the National Development Planning

Framework for all sector plans to be aligned. Given the government's priority on access and quality education, the ESDP incorporates the sub-sector plans and programs aligning them to MTDP IV Strategic Priority Areas (SPAs) and Key Result Areas (KRAs). Achievable targets and costs are therefore clearly set out for 2023 - 2027.

Figure 1.1: The National Planning Framework



(Source: Medium Term Development Plan IV 2023 - 2027)

Figure 1.1 depicts the National Planning Framework that provides the guide for all sector development plans to be developed and aligned to the MTDP IV indicators.

The National Planning Framework provides a clear development path and direction for the Government to meet PNG's development aspirations as envisioned in the National Constitution. This is also expressed in the aspirational goal set out in Vision 2050, the PNG Development Strategic Plan 2010-2030 and other development frameworks, including PNG's commitments to the UN Sustainable Development Goals (SDGs).

Sustainable Social Development in improving education services and outcomes is critical for a knowledgeable and skilled population through the delivery of Primary, Secondary, Technical Vocational Educational Training (TVET) and Tertiary education. NDoE and DHERST as lead agencies will ensure effective coordination to progress the education sector development priorities guided by the country's national development plans².

The education sector has made significant progress in increasing student enrolment and improving access to education over the last decade. However, the quality of education is an issue that needs to be addressed at all levels of education through sector coordination with key stakeholders. The mandated education agencies will continue their focus on improving access and quality of education for all. The agenda for alternate pathways such as Flexible Open Distance Education (FODE) and TVET are being supported to provide better opportunities for students dropping out of school. The Government aims to increase accessibility and retention rates to more than 80% by 2030 through the Government Tuition Fee Subsidy (GTFS) policy and to increase the number of skilled people graduating from higher and technical education institutions.

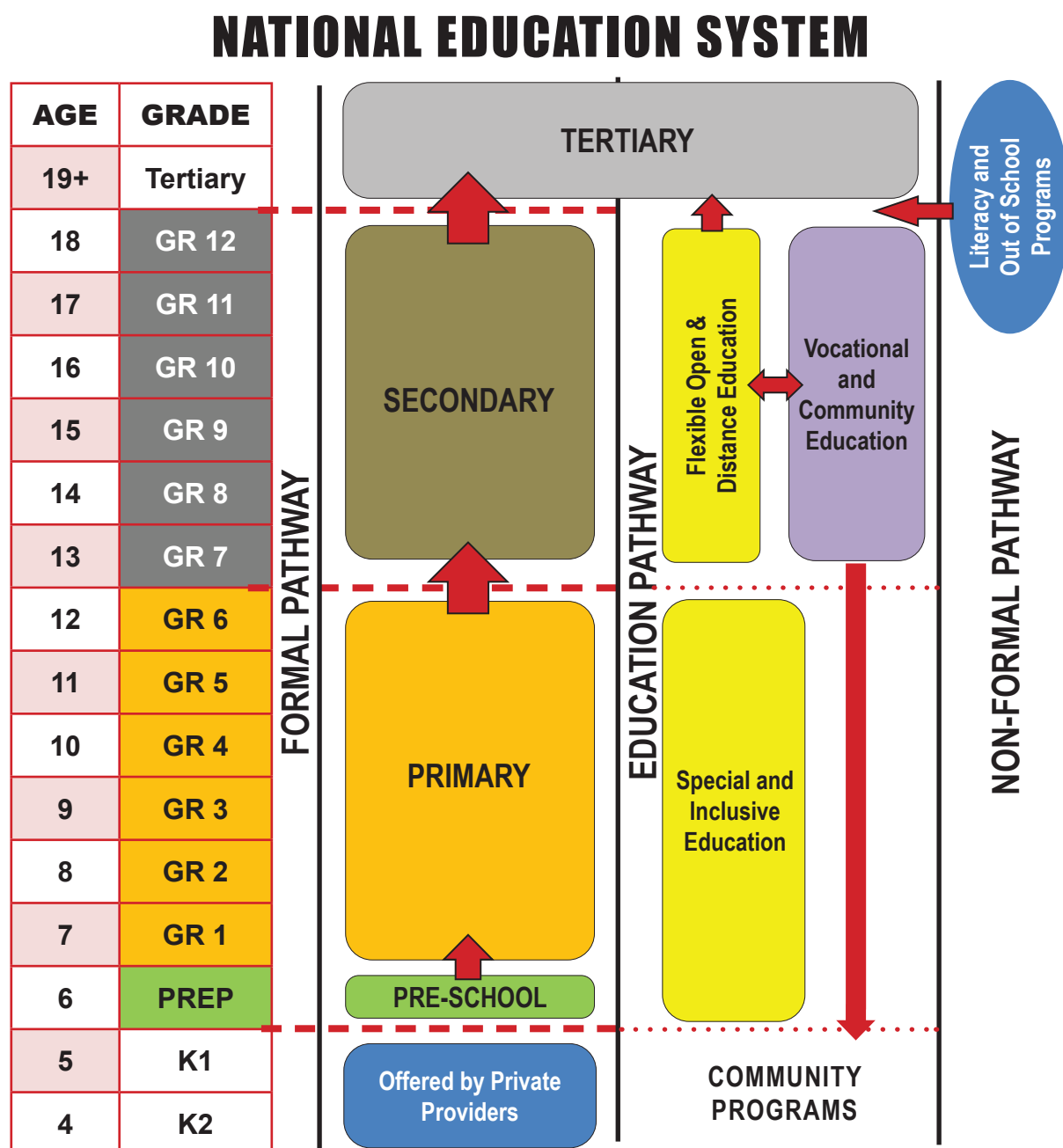


²PNG Vision 2050, PNG Development Strategic Plan 2010-2030, National Strategy for Responsible Sustainable Development, Medium Term Development Plan IV (2023-2027)

1.6 THE EDUCATION SYSTEM

The Education System in Papua New Guinea from Preschool to Tertiary Education level is demonstrated in figure 1.2 showing the general connectivity. The education system starts from Pre-school which covers Early Childhood Education (ECE) and Preschool Education from 4 - 6 years old and the Primary School education from 7 - 12 years of age. Secondary school education caters for ages 13 – 18 whilst tertiary education provides for those of 19 years or above.

Figure 1.2: PNG National Education System





Flag raising ceremony, Tubusereia Primary School, Central Province



UPNG Graduate receiving her certificate

PART 2

Situational Analysis



**EDUCATION SECTOR DEVELOPMENT PLAN
2023 - 2027**

PART 2: SITUATIONAL ANALYSIS

2.1 Overview of the Education Sector

2.1.1 Basic Education Sub-Sector

The education system in Papua New Guinea (PNG) originated from the British and Australian education systems. Historically, the country's education system has had several successive stages of change ranging from the conversion stage between the 1880s and 1940s, characterised by the conversion to Christianity. A dualism stage between the 1940s and 1960s followed when the colonial administration began to establish schools alongside those that missionaries had established. This period was followed by an expansion stage in the 1960s and 1970s when schools were built to prepare manpower for the new nation, Papua New Guinea. A nationalism stage commenced in the 1970s as the country was gearing itself for independence, which saw the church and government form partnerships to run the schools established by the churches. The idea of localisation began to take effect during that period. During the decentralisation stage in the late 1970s and early 1980s, certain functions of the NDoE such as the operational functions of primary schools, high schools, vocational and technical colleges were transferred to each of the 20 provinces in PNG (Pau, 1993; Weeks & Guthrie, 1984).

The education system has been undergoing reforms since the late 1980s to the present. The reforms were initiated to establish relevant education for all Papua New Guineans based on the Philosophy of Education for Papua New Guinea (*National Education Plan, 2020-2029*).

The current education philosophy, structure, and curriculum are based on several key documents, the first of which are the National Goals and Directive Principles from the preamble of the PNG Constitution which provides a core set of guiding principles for the social, cultural, economic, and political development of PNG and all its citizens. Primacy is given to the principle of Integral Human Development, a key priority underpinning the Matane Report (1989) that drove the major reforms of the education system that occurred in the 1990s.

Papua New Guinea has long had Universal Basic Education (previously Universal Primary Education) as the preeminent policy objective in education. This is consistent with the Sustainable Development Goals (SDG) 4, that is to, 'Ensure inclusive and quality education for all and promote lifelong learning opportunities for all ...' and contribute towards the achievement of SDGs 5 & 6 to 'Achieve gender equality and empower all women and girls', and to 'Ensure access to water and sanitation to all'. These are also consistent with the previous iteration of United Nations (UN) goals – the SDGs.

During the Independence period, the education structure was designed to produce a cadre of Papua New Guineans equipped to take over the reins of government and administer the public service. Secondary education was attained by a small portion of the population. These and other pressures led to a major restructuring of the education system following the Matane Report of 1989. This featured the introduction of elementary schooling, with the language of instruction to be that of the community, and the expansion of upper secondary education through the addition of Grades 11 and 12.

The NEC Decision No. 315/2016 proposed a 1-6-6 school structure after a public criticism of using local vernacular in elementary schooling as evidenced by the poor comprehension of English by many students. PNG is now implementing the 1-6-6 school structure where three (3) years of elementary education will be reduced to one (1) year. Early Childhood Education (Elementary 1), primary education as Grades: 1,2,3,4,5 & 6 respectively with the secondary education as Grades: 7,8,9,10,11 & 12.

2.1.2 Progress Toward Universal Education

2.1.2.1 Gross Enrolment Rates

The country has experienced significant progress towards achieving universal education and the barriers of the past have slowly been dismantled. The first of these which existed before Independence was the number of places in schools. There are currently no institutional barriers until Grade 8 and the percentage progressing to Grade 9 is now well over 65%. The alternate pathways of FODE services and vocational schools are available for the remaining 35% to continue secondary education. Approximately 60% progress their education from Grade 10 into Grade 11.

Gross enrolment rates in 2018 were at 131%, 81%, and 34% for elementary, primary, and secondary education respectively compared to 2021 which had a significant improvement in all levels. Enrolments also rose in vocational education; however, it still requires attention in terms of additional investment and improvements. The number of students attending FODE centres has also increased.

The table 2.1 below shows the data for 2021 in various major indicators of the basic education system.

Table 2.1: 2021 Basic Education Sub-Sector General Indicators

General Growth	School Growth	12,884
	Overall enrolment	2,271,165
	Teacher Growth	63,916
Gross Enrolment Rate (GER)	Elementary (P-E2)	127%
	Primary (Gr 3-8)	77%
	Secondary (Gr 9-12)	24%
Net Enrolment Rate (NER)	Elementary (P-E2)	86%
	Primary (Gr 3-8)	81%
	Secondary (Gr 9-12)	36%
Transition Rate	Gr 8-9	65%
	Gr 10-11	55%
FODE	Enrolment	53,435
	Subject enrolment	89,560
	Number of Gr 8-9 FODE	3,900
	Number of Gr 8-9 VET	1,892
	Number of Gr 10-11 mainstream	35,685
	Number of Gr 10-11 FODE	14,062
Pupil Teacher Ratio (PTR)	Elementary (P-E2)	45:1
	Primary (Gr 3-8)	33:1
	Secondary (Gr 9-12)	32:1
Average Class Size (Students/Class)	Elementary (P-E2)	37
	Primary (Gr 3-8)	33
	Secondary (Gr 9-12)	47

Teacher Qualifications	Elementary – CETT	100%
	Primary – Diploma	100%
	Secondary - Bachelor's Degree/Master's	100%
Examinations: Mean Rating Index (MRI)	Grade 10	48%
	Grade 12	63%

(Source: Education Management Information, 2021 & Measurement Service Division, 2021)

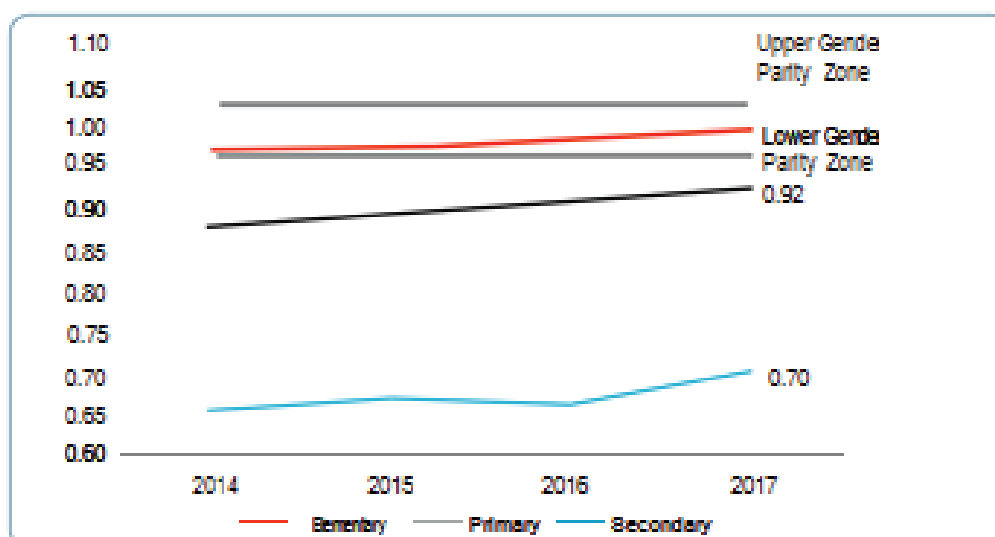
Some progress has been made in providing the number of teachers required to cope with the pressures of increased enrolments. The number of pre-service teacher training students has increased over the years to reach a peak of almost 64,000 teachers in 2021. Three (3) primary teacher colleges, and one (1) providing secondary school pre-service training, have been opened over the last ten (10) years. Despite establishing additional four (4) teacher training institutions, it has not improved the teacher-student ratio. The teacher-student ratio continues to be higher than recommended in all levels and is of particular concern in the secondary education with reported ratios of up to fifty (50) students per teacher.

2.1.2.2 Gender Parity Index

The Gender Parity Index (GPI) has improved in absolute terms with secondary education improving dramatically.

There is still considerable variation between the provinces concerning the participation of female students in the education system; generally, however, it has seen an improvement. The GPI as shown in figure. 2.1 and table 2.2 for elementary and primary schooling indicates gender equity is close to 1. This is not the case in secondary education, where the GPI remains less than 0.8. Data shows that males continue to dominate vocational and technical education programmes.

Figure 2.1: Gender Parity Index 2014 - 2017



(Source: National Education Plan 2020-2029)

Table 2.2: Post primary transition rates and Gender Parity Index for 2017 to 2018

	Male	Female	Total	GPI
Grade 8 to 9	67.3%	62.9%	65.4%	0.93
Grade 10 to 11	58.6%	57.7%	58.3%	0.98

(Source: National Education Plan 2020-2029)

There are no institutional barriers until Grade 8 and the percentage progressing to Grade 9 is now well over 60%. Approximately 60% moved from Grade 10 into Grade 11 according to latest figures, with a very healthy GPI, and in absolute terms the numbers being provided with a full secondary education has improved dramatically. Gross enrolment rates are now at 131%, 81% and 34% for elementary, primary and secondary education respectively. Enrolments have also risen in vocational education although this is still considered a poor relation in many quarters. The numbers attending FODE have also continued to rise and the institution is now offering academic courses through matriculation.

2.1.2.3 Literacy and Numeracy rates

Literacy and numeracy rates have steadily improved over the years but there is more to be done to reach the benchmarks agreed upon by comparator countries in the region. The table below shows the Papua New Guinea Pacific Islands Literacy and Numeracy Assessment (PILNA) results for 2018.

Table 2.3: PNG PILNA Results of Grade 3 in Literacy and Numeracy

	Papua New Guinea		Pacific Region	
	Literacy	Numeracy	Literacy	Numeracy
Performing at or above the expected minimum proficiency level	38.3%	85.7%	52.7%	83.3%
Performing below the expected minimum proficiency level	61.7%	14.3%	47.3%	16.7%

(Source: Pacific Islands Literacy and Numeracy Assessment 2018)

Table 2.4: PNG PILNA Results of Grade 5 in Literacy and Numeracy

	Papua New Guinea		Pacific Region	
	Literacy	Numeracy	Literacy	Numeracy
Performing at or above the expected minimum proficiency level	51.8%	83.7%	62.8%	83.4%
Performing below the expected minimum proficiency level	48.1%	16.3%	37.2%	16.6%

(Source: Pacific Islands Literacy and Numeracy Assessment 2018)

2.1.2.4 Intra grade retention rates

Intra grade retention rates remain high within the sub-sector but tend to drop considerably between different levels of basic education. The education system will continue to experience this trend if examinations remain a tool for selecting students to continue their education. The notion of one entry and one exit may improve the outlook if the correct allocation of resources is provided to the basic education sub-sector.

Provinces set their cut-off marks for students continuing to Grade 9 in high or secondary schools after the examinations and cut-off marks are usually determined by the availability of Grade 9 spaces in secondary and high schools. As shown in table 2.2, transition into Grade 9 is at 65%

while 35% are absorbed into the community, with only a few enrolling at FODE centres.

The Mean Rating Index (MRI) for Grade 12 examinations is higher (63%) than the lower secondary (48%).

2.1.2.5 Staff and student welfare

The welfare of students and teachers is of paramount importance. Merely functional Water Sanitation and Hygiene (WaSH) facilities are thus detrimental to the well-being of the students and the subsequent development of the *WaSH in School Policy (2018-2023)* gives emphasis to this area of concern. While over 50% of all the schools have functional WaSH facilities, the percentage still varies from one level to another. For example, the lowest being elementary schools at 83%, with primary schools a little better at 89%, whilst both secondary schools and vocational schools are at 93%. Vocational and secondary schools owe the high percentages to the fact that many are boarding schools with the requirement to have effective WaSH facilities.

Many schools in rural areas are still using semi-permanent WaSH facilities. Education Management Information System (EMIS) data has recently included data on WaSH facilities in schools. Proper planning for the general improvement of these facilities is lacking, as evidenced by the very low number of schools (20%) having School Learning Improvement Plans (SLIP). SLIP is a planning document that has been in use for several years specifically aimed at drawing all stakeholders together to plan for the way the school is managed and led.



2.2 Basic Education

2.2.1 Pre-School

2.2.1.1 Early Childhood Education

Formal education in PNG does not, as yet, embrace Early Childhood Education (ECE) or the provision of dedicated centres. A situational analysis conducted by NDoE with the assistance of United Nations International Children's Emergency Fund (UNICEF) in 2016 identified two main reasons for this. First, that there are insufficient resources, financial or otherwise, to provide an education for children younger than six (6) years old. Second, many parents are not aware of the benefits of having their young children enrolled in formal educational institutions and this lack of awareness is translated into lack of demand for ECE. Most of the current ECE institutions are private or run by faith-based organisations, the bulk of which are in urban areas. Many of these ECE institutions are expensive, and those that are free have a limited number of spaces available.

Early Childhood Care and Development (ECCD) in PNG is the responsibility of the Department of Community Development and Religion (DCDR). However, the NDoE has taken the steps to develop an ECE Policy and to also take on this education component.

NDoE has progressed work on ECE with the development of an Early Childhood Care and Education (ECC&E) Curriculum Framework comprising an ECC&E Syllabus for ages 4 and 5, together with ECC&E Teachers' Guides for Kindergarten 1 (K1) and Kindergarten 2 (K2) and will be used in the implementation of ECE.

Pre-service teacher training functions have been transferred to DHERST and ECE teachers are selected by DHERST.

The ECE Teacher conversion programme is an in-service programme targeted towards training and upskilling the current elementary teachers to become qualified ECE teachers. The programme has a target of 12,000 teachers to be trained over a five-year period commencing in 2023 by approved teacher colleges and universities.

The Papua New Guinea Education Institute and University of Goroka have signed an MoU with NDoE to progress training of ECE trainers and mentors.

Papua New Guinea Education Institute began with 130 ECE trainers and mentors in 2021. These trainers and mentors are now qualified to facilitate and conduct training collaboratively with PNGEI lecturers. Papua New Guinea Education Institute now plans to train 150 elementary teachers at its Heldsbach campus in Finschhafen, Morobe Province and another 150 in Port Moresby at its main campus.

UOG has already trained and graduated 298 ECE teachers from Eastern Highlands, Simbu, Jiwaka and Western Highlands with a commitment to build on these numbers. Other teacher colleges such as Madang, Gaulim and Divine Word University campus will follow once formalities are completed.

ECE is the first focus area in the National Education Plan 2020-2029, within which the government has made a number of international commitments. A small number of Provincial Governments and individual Members of Parliament have also prioritised ECE investments. Despite these commitments, this has not yet led to substantial domestic investment.

The age of entry to ECE is 4 years of age and will require two years of school readiness before enrolling into the formal system at age 6 for preparatory grade.

2.2.1.2 Pre-school Education

Elementary education was introduced in the early 1990s and became an integral part of the National Education System Strategy to expand education coverage and boost access and participation of young children.

Schools increased by an additional 3,132 from 5,349 in 2007 to 8,201 in 2018. Student enrolment also increased from 356,087 in 2007 to 1,012,007 in 2018. Serving teacher numbers increased from 10,494 in 2007 to 18,493 in 2018, an increase of approximately 8,000 professionals. Between the eleven years from 2007-2018, the teacher-student ratio increased at an uncontrolled rate from 34 to 54 students per teacher.

Furthermore, the establishment of more than 3000 new schools meant that more teachers were needed. This prompted the recruitment of people with Grade 8 certificates or lower to fill the void in situations where the number of Lower Secondary School Teaching Certificate holders was limited or lacking. Many of those who were recruited could not be employed and paid by the Teaching Services Commission (TSC). While elementary education is critical for the future learning of students, it continues to face severe recruitment problems, in parallel with the backlog of uncertificated elementary school teachers.

There is no formal examination to transit from elementary to the primary education hence there is no reliable data to analyse student academic performance; however, anecdotal evidence suggests that the quality of learning has not only deteriorated rapidly over the years but has also regressed to levels unseen in PNG. As a result, the elementary education has been heavily criticised for contributing to the falling standards in education, with the consequent outcry for the reintroduction of the previous structure (1-6-6 school structure).

2.2.2 Primary Education

The Primary Education is the second stage of basic education after Early Childhood Education (ECE). It offers six (6) years of education from Grades 1 to 6. The entry requirement is at six (6) years old after successful completion of a year of ECE.

By 2027, every Papua New Guinean who is over the age of 14 will have successfully completed their primary education (Grades 1- 6) and attained the basic minimum skills and knowledge to pursue secondary education (Grades 7-12) under the 1-6-6 school restructure. The current primary transition rate under the 3-6-4 school structure from Grade 8 to Lower Secondary (Grade 9) is 73% with a Net Enrolment Rate of 59%. The progress is gradual while implementing the Government's policy reform of 1-6-6 school restructure hence many primary schools and secondary schools are yet to implement the policy.

The realisation of this goal will be attributed to many factors such as good leadership; community support; strengthening partnerships; quality teacher training; curriculum; effective management, and administration. The school restructure from 3-6-4 to 1-6-6 will require participation from all stakeholders to improve the quality of education called for by the government.

Teachers are the major catalyst for quality teaching. Appropriately trained and qualified teachers are required. Most teachers hold a diploma in primary teaching while some have a bachelor's degree in primary teaching. Across Papua New Guinea there are 4,151 primary schools, with a total enrolment of 24,192 students, figures that accentuate the need for action on teacher supply and retention.

2.2.3 Secondary Education

The Government's goal and vision for education is access to quality education and human

capital development as emphasised in Vision 2050. The existing National High School structure offers four (4) years i.e. two (2) years of education from Grades 9 to 10 and Grades 11 to 12 respectively. Students access secondary education after successfully completing six (6) years of primary education as determined by the National Grade 8 Examination results. Access and transition rates have been a concern, especially with fewer female students accessing secondary education. However, comparatively, female students have done well academically.

The implementation of GTFS has aided access; hence enrolment has increased, raising concerns of overcrowding in classrooms that affects quality teaching and learning. Despite that, there are still school-age children out of school for varying reasons.

Teacher shortages, a lack of sufficient curriculum resources; impoverished school facilities and infrastructure; a lack of support from some communities, families and peer groups are among the main contributing factors adversely affecting secondary education.

The current baseline of below 50% for access and 18% for the Net Enrolment Rate is a worrying indicator for secondary education.

The availability of appropriately trained secondary school teachers set against the rising teacher demand remains a dilemma. An imbalanced teacher-student ratio has compromised the introduction of the new secondary Standards-Based Curriculum (SBC). The development and implementation of the SBC is continuing however, a lack of properly equipped science facilities impedes effective teaching and learning.

2.2.4 National Schools of Excellence

The National Executive Council (NEC), in recognising the challenges presented by technological innovations and the glaring shortage of manpower in the scientific, technical and technological fields, has directed the Department of Education, through the NEC Decision No. NG141/2009, to introduce the School of Excellence Concept to the National High Schools and in selected Secondary schools. The policy approves the introduction and implementation of the National School of Excellence and the STEM curriculum.

Recognizing the importance of STEM skills in the workplace for the country's long-term future, as outlined in Vision 2050, the Department of Education has developed a new STEM Curriculum. This curriculum places greater emphasis on research-based, problem-solving, and technically and technologically advanced learning to propel the nation forward. The overarching goal of STEM Education is to bridge the skills gap across all crucial sectors in PNG, both private and public, reduce reliance on expatriate workers, and increase the number of skilled individuals in the PNG workforce to tackle domestic and global challenges. STEM Education, which integrates science, technology, engineering, and mathematics, has been implemented in all National Schools of Excellence.

2.2.5 Vocational Education and Training

In the past, adults in each tribal society in Papua New Guinea educated their children in practical skills, social behaviour, and spiritual beliefs enabling them to live effectively within their traditional societies. However, in the aftermath of colonisation and the introduction of new materials, ideologies and ways of living, our people adapted to changes. One group that particularly influenced change in our traditional societies were the Christian missionaries during the early 1900s.

Encouraged by the British Government, the missionaries developed a vocational education programme that equipped people with skills to become better farmers, craftspeople, and skilled labourers. With technological advances however, these educational programmes have

transitioned from traditional vocational training to more advanced occupational training.

There are currently 151 Vocational Centres registered by NDoE and operating throughout the 22 provinces. However, there is still a need to establish additional Vocational Centers in 12 districts still without vocational centres. The districts are responsible for the establishment of vocational schools, while the NDoE conducts the registration process.

There are three types of programmes that are being implemented in the vocational centres, which are:

- i. *A Conventional Programme* in trade and soft skills with a duration of one to two years, centre-based and delivered in most vocational schools deriving from the standards of the National Apprenticeship Trade Testing Board (NATTB). Both the Conventional and National Certificate (NC) programme are delivered using the Competency-Based Training and Assessment mode of teaching and learning;
- ii. *National Certificate (NC) Courses Level 1 & 2* for six months each; and
- iii. *Short-term demand-driven courses* for different range of learners in both trade and soft skills.

Although teaching and learning does take place in vocational centres with many students graduating and securing employment, there are however shortcomings in the vocational centres due to a lack of updated teacher guides, insufficient copies of student workbooks and textbooks, inadequate tools and equipment, a shortage of qualified trade teachers and an absence of resource support for management and operations. Skills programmes are often not delivered in many vocational centres because of the expenses and the absence of financial support.

The current status of the physical infrastructure, training facilities, including tools and equipment are inadequate and obsolete. Reports reveal the appalling conditions of the physical infrastructure, for example classrooms, workshops, laboratories, dormitories, ablution blocks, and staff houses. A major shortcoming of the physical infrastructure is that the buildings have not been designed and constructed in a way that meets the vocational curriculum and training programme specifications. Thus, the quality and standards of delivery of teaching and learning have been seriously affected over the years, a situation that continues to this day. This has also delayed the roll-out of the Compulsory Implementation of the Competency Based Training & Assessment Curriculum in all TVET Institutions as directed through the Secretary's Circular Instruction Number 09 of 2019.

Within the last five years, the European Union, through the Human Resources Development Programme phase 3 (HRDP-3), has funded the rehabilitation of ten vocational centres. Other vocational centres not funded through the HRDP-3 saw minor maintenance carried out through the School Learning Improvement Programme (SLIP). Although this was a good improvement, there are still issues that need to be addressed in order for vocational schools to fully maximise their resources and potential and make significant contributions in the education sector.

In 2021 there were a total of 1855 positions for vocational centres throughout the country as per the master position registry (MPR 2021). As of August 2022 TSC figures indicate that 1603 (*Male: 973 and Female: 630*) positions were occupied by teachers/ instructors with 249 vacant positions.

Vocational trainers must have the following qualifications as a minimum requirement: *Diploma in Teaching, Diploma in Trade* together with the *Tradesmen Certificate and Certificate 2 in Training and Assessment* in order to deliver Competency-Based Training and Assessment courses.

Unfortunately, TVET does not have a specialised teacher training institution. The current teacher training providers such as the University of Goroka and PNG Education Institute do not meet all the requirements to fully train a TVET Trainer. Hence, the current TVET teacher training and qualifications do not correspond to the demands and requirements of technological advances and industry needs. As a result, the quality and standards of delivery of teaching and learning through Competency-Based Training and Assessment are being adversely affected.

Majority of serving TVET teachers have been teaching for years without any form of skills upgrade to meet fast-paced technological change. TVET also faces the challenge of attracting and retaining qualified and experienced instructors with appropriate trade and teaching qualifications, a situation worsened by the better and more attractive conditions of employment for skilled labour provided by the private sector and resource project developers. The quality of education and training of TVET graduates must meet industry standards, however, this cannot be achieved without qualified and experienced instructors and teachers.

The existing vocational administration and coordination is fragmented between the national and provincial administrative functions against the responsibilities stipulated in the Organic Law on Provincial and Local Level Government. Consequently, critical national directives such as the implementation of quality assurance of nationally accredited programmes, the recruitment of qualified skilled instructors or the rehabilitation and sustainability of vocational schools.

NDoE is responsible for curriculum and inspections, while both NDoE and Provincial & District Education share the responsibilities of building capacity in the schools through teacher training and infrastructure development and rehabilitation.

The Vocational Education and Training (VET) is coordinated in the provinces through its four regional offices. Regional coordination has been very ineffective over the years due to resource constraints. Enhancing the regional offices will reconnect the broken link between the national and provincial offices and strengthen partnerships to develop our VET schools to serve their purpose of skilling the nation. Partnership with the provinces, industry and development partners is vital to provide access to skills training for formal, informal, and non-formal employability and sustainability.

A shortage of skilled labour is a major issue facing Papua New Guinea in all major industries which has resulted in the widespread engagement of expatriate contract officers. This may in part be attributed to a lack of political and government support, whilst yet another contributing factor, is the boom in industries such as mining, tourism, forestry, fisheries, agriculture and others requiring more skilled labour. The VET system is unable to meet these demands due to the failure over the years to sustain, rehabilitate and strengthen vocational schools in order to produce a skilled labour workforce to meet the country's needs.

The information below in table 2.5 is a summary of non-citizens and their engagement in the respective industries based on the PNG Classification of Industrial Divisions of major industries.

Table 2.5: Summary of non-citizens and their engagement in the respective major industries

Major Industry	Non-citizens Workers	Total
1	Agriculture, Forestry & Fishing	7,557
2	Construction	7,453
3	Retail Trade	5,317
4	Wholesale Trade	4,636

Major Industry	Non-citizens Workers	Total
5	Other Services	2,428
6	Mining	2,334
7	Transport, Postal & Warehousing	1,776
8	Manufacturing	1,438
9	Administrative & Support Services	994
10	Accommodation & Food Services	782
11	Professional Scientific & Technician	712
12	Health Care & Social Assistance	704
13	Education & Training	448
14	Financial & Insurance Services	409
15	Information Media & Telecommunication	398
16	Rental, Hiring & Real Estate Services	383
17	Electricity, Gas, Water & Waste	281
18	Arts & Recreation Services	138
19	Public Administration & Safety	133
Total		38,321

(Source: Foreign Employment Division, Department of Labour and Industrial Relations 2021)

The skills gap will require development of TVET in both the secondary and higher education by urgently developing industry demand-driven courses to increase the capacity of a skilled local workforce, while at the same time providing wider access to the Flexible Open Learning mode to be delivered through technology-enabled learning.

2.2.6 Flexible Open and Distance Education

Flexible Open and Distance Education (FODE) offers an equal, but alternative education pathway for students to access secondary education and attain the respective secondary qualifications. The mainstream curriculum from Grade 7 to Grade 12 is now on offer in FODE, which allows students to sit the same examinations and receive the same certificates as their peers in formal education. It also offers an opportunity for Grade 10 and 12 students with low Grade Point Averages (GPAs) to upgrade their results to a desired level.

Adult Matriculation Studies is the third programme on offer to those already in the workforce who have not continued their education beyond Grade 10. There are 22 Provincial FODE Centres, two district centres and 80 registered Correspondence Study Centres, supported by ten schools delivering FODE education.

The major challenges in delivering FODE continues to be inadequate infrastructure, an insufficient and inconsistent supply of teaching and learning resources, limited opportunities due to the locality or remoteness. There is also disproportionate student-teacher ratios directly related to unprecedented increase in enrolments increasing from 32,000 to 76,000 in the past three years.

The Government is keen to see secondary school subjects being taught in vocational schools become a viable option for FODE students, which will ensure that those completing National Certificates (NC) 1 and 2 will graduate into the workforce with not only technical knowledge but also having had access to the secondary curriculum.

Table 2.6: Current and projected enrolment for FODE

Current enrolment by subject			Projected enrolment by subject			
2021 (Baseline)	2022	2023	2024	2025	2026	2027
53,000	32,000	76,000	84,000	91,000	102,000	115,000

(Source: Education Management Information System 2021)

2.2.7 National Literacy Awareness Secretariat

Literacy skills have long been regarded as important indicators of human development, as measured by adult literacy rates and testing at primary, secondary and tertiary levels. The adult literacy rate is taken to be the percentage of people aged 15 and above who can both read and write with an understanding of a short simple statement about their everyday life. Literacy rates are routinely calculated following the National Census.

A deeper examination of the National Statistical Office's (NSO) literacy data for the 2009 - 2010 census revealed that 63.3% of the census population can read and write, with the remaining 36.7% described as illiterate (NSO: *Papua New Guinea household, income and expenditure survey-summary tables, (2009-2010)*). Later studies carried out in 2013 contend that, of the 7.5 million people of PNG, 63.3% (4,747,500 people) were literate while 36.7% (2,752,500) were print illiterate.

The National Research Institute (NRI) Spotlight, Issue No.7, published eight years later in June 2021 suggests that the literacy rate was at 63.4%, a marginal increase of 0.1%. Illiteracy remains at an unacceptably high level that disturbingly includes out-of-school children (OOSC). The table below shows the percentages of 23 of the 111 districts in the country with very low literacy rates. 19 or 83% of these districts are from the Highlands Region according to 2010 NRI figures coupled with District and Provincial Profiles. Below is a list of districts with very low literacy rates.

Table 2.7: List of districts with very low literacy rates

No.	Districts	Total	Male	Female
1	Sinasina Yonggomugl	39.0%	47.4%	30.2%
2	Henganofi	38.7%	45.3%	31.8%
3	Mendi	38.2%	42.9%	34.3%
4	Gumine	36.4%	41.9%	30.6%
5	Chuave	34.9%	43.3%	26.1%
6	Koroba Lake Kopiago	33.3%	37.1%	29.3%
7	Mul Baiyer	32.9%	38.6%	27.1%
8	Kagua Erave	32.7%	37.5%	27.9%
9	Nipa Nutubu	32.3%	36.0%	28.6%
10	Lufa	32.1%	39.3%	24.7%
11	Tambul Nebilyer	31.2%	36.6%	25.8%
12	Kompam Ambum	30.3%	35.1%	24.9%
13	Telefomin	30.3%	36.3%	23.7%
14	Dei	28.3%	38.1%	22.3%
15	Lagaip Porgera	28.0%	33.1%	22.4%
16	Jimi	27.2%	34.5%	19.2%
17	Menyamya	26.1%	34.2%	17.7%

No.	Districts	Total	Male	Female
18	Goilala	21.7%	30.3%	18.7%
19	Kandep	23.9%	28.5%	19.3%
20	Middle Ramu	23.7%	30.7%	16.6%
21	Komo Magarima	23.5%	27.5%	19.4%
22	Obura Waninara	21.2%	28.9%	13.6%
23	Karimui Nomane	20.2%	32.4%	14.4%

(Source: District and Provincial Profiles - National Research Institute 2010)

Access to education for the disadvantaged is limited because children, especially in the rural areas and urban settlements cannot find a place in the Early Childhood Education (ECE) centres, elementary and primary schools. Community programmes for non-literate populations in the rural and urban communities have given prominence to the increasing numbers of illiterate children, youth and adults, a worsening situation that needs to be prioritised for action.

At a national level, provision of literacy materials, printing and distribution, teacher training and the establishment of literacy programmes with a standard curriculum is needed to address the challenges of delivering literacy education and OOSC programs. The partnership between the Government, development partners and stakeholders is vital to improving literacy education, OOSC programs and improving the country's literacy rate.

2.2.8 Inclusive Education

The PNG Government is a signatory to the Convention on the Rights of Persons with Disabilities. The PNG Constitution emphasises PNG's commitment to promoting Human Rights and Dignity of Persons with Disabilities and enabling them to participate fully in the nation's development.

According to the National Education Plan (NEP), 2020 – 2029, the Inclusive Education Policy and Minimum Standards, both highlighted the rights of all children to be educated, including children with special educational needs, and decreed that they must have access to education. The NEP Priority Area No: 3 Equity (p.42), explicitly states in the *minor outcome 3.5: that; 'a collaborative approach is used to institutionalise inclusive education within the school system'.*

According to the World Health Organisation (WHO), an estimated 10% - 15% of persons are living with disabilities or special needs. Currently, 1.3% (15,487) of those between the ages 0 - 18+ living with disabilities and special needs are served by 23 Inclusive Education Resource Centres (IERCs) while 98.7% have not been identified and registered.

In 1994, the Government and Church Partnership programme, working with the Callan Studies National Institute (CSNI) established 23 IERCs with the Teaching Service Commission (TSC) creating 173 positions for Inclusive Education.

The notion that every child is endowed with their own potential and talents is fundamental to inclusive education. Collaboratively, every teacher, parent and stakeholder must work to identify a child's potential and develop the individual to their fullest extent. To this end, a teacher student ratio of 1:15 has been approved by the Department of Education.

Table 2.8: Numbers of Staff, Students, Facilities and Other Resources

IERCS	No of Staff	No of Students	Vehicle Boat	Admin Blocks	Pre School (ECE) C/ room	Staff Houses	Inclusive Model school
CSNI ² - Wewak	13	50	2	1	0	0	0
Callan Mt Hagen	11	1393	2	1	2	6	0
Callan Daru	6	1127	2	1	2	6	0
Callan Rabaul	9	1318	1	1	2	0	0
Callan Alotau	4	160	0	1	1	4	0
Cheshire Inclu School	8	600	0	1	3	0	0
CSHC ³ -Madang	7	675	0	1	1	0	0
Callan Aitape	6	112	0	1	2	2	0
IERC -Mendi	11	759	1	1	2	4	0
St. John's Blind	4	150	0	0	0	0	0
Simbu IERC	7	299	0	1	1	0	0
Callan Kiunga	6	492	2	1	3	6	0
Callan Kavieng	6	1426	0	1	1	0	0
Red CrossIERC	4	140	1	1	4	2	0
Callan Vanimu	4	359	1	1	2	2	0
Callan Wewak	13	482	1	1	3	3	2
St. Therese – Mingende	9	1611	1	1	3	4	1
IERC - Enga	4	1085	1	1	2	0	0
IERC - Mt. Sion	12	1050	2	1	2	2	2
Callan Kimbe	6	105	2	1	0	0	0
- Callan Manus	4	112	0	1	2	0	0
Morobe IERC	6	462	1	1	5	6	0
Callan Gerehu	4	517	0	1	1	1	0
Callan Buka	9	981	1	1	2	6	0
Total	173	15465	21	23	46	54	5

(Source: Inclusive Education Unit - FODE/IE 2022)

The main Inclusive Education Programmes that are delivered by IERCs and CSNI are listed below.

i. Early Screening and Identification Intervention programmes

Many Children/Students with Disabilities and Special Needs (C/SWDs/SNs) are identified through the screening and awareness programme in communities and schools. C/SWDs/SNs identified, are either enrolled in mainstream schools, IERCs or receive educational support from IERCs through Community Based Rehabilitation Programmes.

ii. Early Intervention Programme and Early Childhood Education Centres

Historically the Early Intervention Programme (EIP) has meant that C/SWDs/SNs aged 0 – 6 are prepared early with braille skills, orientation and mobility skills, sign language and

² Callan Studies National Institute

³Creative Self-Help Centre

other basic daily living skills before integrating them into mainstream schools. Ultimately ECE will replace the EIP.

iii. Integration or Mainstreaming of Students with Special Needs (SWSN) or Disabilities

Via the learning of basic communication skills, C/SWDs/SNs are integrated into mainstream schools. IERC teachers make regular visits to support teachers and students with teaching and learning resource materials and provide training for teachers in schools.

iv. Community Based Rehabilitation

The Community Based Rehabilitation Programme (CBR) mobilises IERC teachers, volunteers and helpers to travel to communities and villages to deliver the EIP, skills training, orientation and mobility training and to train parents on self-help and care activities.

v. Callan Studies National Institute (CSNI)

CSNI is the only organisation that provides an in-service teacher training qualification for admission to the Applied Diploma in Inclusive Education. CSNI will venture into in-service training at degree level with specialisation in the teaching of children who are differently abled.

vi. Inclusive Model School

The Inclusive Model School is a new initiative that is being piloted in five primary schools in Simbu, Eastern Highlands and East Sepik Provinces respectively. The aim of this pilot project over time is to integrate inclusive education into mainstream schools (*National Education Plan 2020 – 2029: p 42*).

vii. Teacher Qualification

Table 2.9: Teachers' qualifications in IERCs and Callan Studies National Institute

No	Qualifications	No of Trs/ Lecturers	No	Qualifications	No of Trs/ Lecturers
7.1.	Certificate in Teaching	7	7.4	Bachelor in Education (BEd)	82
7.2.	Diploma In Teaching	56	7.5	Masters in Education (MEd)	2
7.3.	Applied Diploma in Inclusive Education	20	7.6	Doctor of Philosophy (PhD)	0

(Source: *Inclusive Education Unit - FODE/IE 2022*)

viii. Curriculum and Resources

The Standard Based Curriculum (SBC) provides a pathway for learners in mainstream schools. However, students who learn differently must also have access to the SBC curriculum and appropriate resource materials in formats such as braille textbooks and sign language text into speech. Specific teaching equipment also needs to be procured to support teachers as they deliver student learning.

ix. Rehabilitation and Infrastructure Development

Infrastructure rehabilitation and development are paramount and equally contribute to quality Education for All (EFA) especially C/SWDs/SNs. Since 1994, infrastructure development has been given least priority by both government and church agencies.

x. Summary

By working collaboratively to promote a fair, safe environment, inclusive and quality education for all, together with funding support from all stakeholders and the Government, Inclusive Education ought to achieve the overall goal of enrolling up to 45% of C/SWD/SNs and meeting the Government's aim of Leaving No Child Behind.

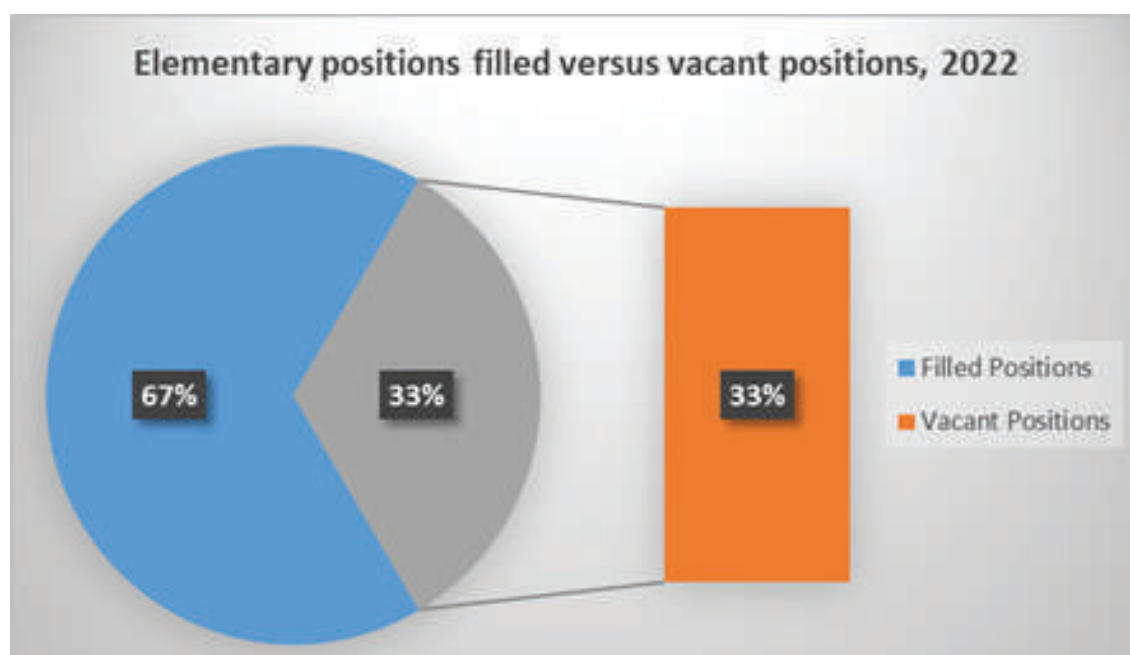
2.2.9 Teaching Service Commission

The Teaching Service Commission (TSC), as mandated by the State through the *Teaching Service Act 1988*, remains the sole employer of all teachers in PNG. Its powers and functions are stipulated in the Act, in particular *Sections 9, 11 and 143 that detail respectively the Function of the Commission and the Financial Responsibility of the State*. It also administers the Teaching Service (*Auxiliary Members*) Act which applies to expatriate members established under the Ministry of Education by the *Teaching Service Act, 1988* 'to exercise a critical oversight of all matters relating to the terms and conditions of service and welfare of members of the Teaching Service.'

The TSC was established on 1st July 1970. Hitherto, the TSC has existed as a division of the NDoE, despite it being governed by the Teaching Service Act 1988. This has resulted in the Commission's underperformance in its key function, that of teacher development.

In 2014, the Government commissioned the Parliamentary Referral Committee on Education matters (PRCE) to investigate issues affecting education and especially teachers in the country. Consultations were undertaken to understand the plight of teachers and issues surrounding the establishment of TSC were documented as the thirteen PRCE recommendations. The recommendations contained in the PRCE report to Parliament on 26th August 2014, among other things, called for legislative reviews, particularly the provisions and sections of the Education Act and TSC Act pertaining to the management and control of all issues affecting teachers. Related to the PRCE recommendations, the NEC, through NEC Decision No.26/2015 directed NDoE and TSC to resolve the pressing issues affecting teachers highlighted in the PRCE report.

Figure 2.2: Percentage elementary schools' vacant positions against filled positions, 2022.



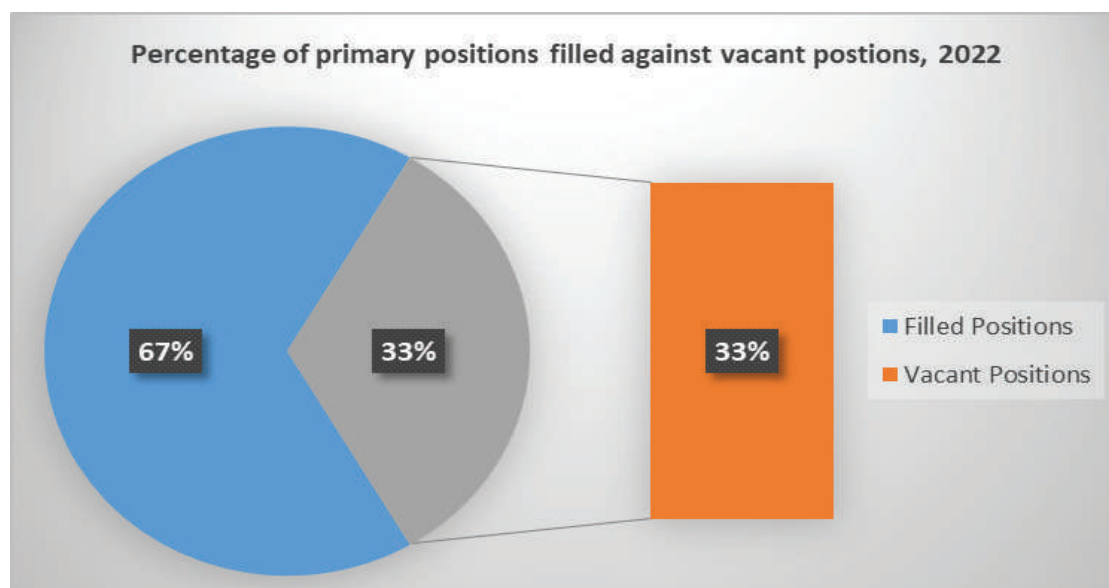
(Source: Teaching Service Commission, Validation Report 2022)

The number of teachers graduating from the teacher colleges continues annually, as illustrated in Figure 2.2. TSC keeps careful check of the numbers of teaching positions and vacancies, and records show consistent increases in teaching personnel. In June 2022, the ALESCO payroll reported 80,000 teaching positions with 69,000 teachers active on the payroll. The graphs below (Figure 2.2, Figure 2.3 and Figure 2.4) represent the current teaching workforce capacity from elementary to secondary education.

The quality of education in the country has long been a topic of concern, with many pointing to the elementary education as the root cause of the decline. The selection process for elementary teachers has come under scrutiny, as they are often chosen from the community with a minimum requirement of a Grade 10 certificate, regardless of their grades. In cases where no one meets this requirement, persons with formal education or qualification less than grade 10 can be trained, certified, and placed on the payroll. Figure 2.2 shows the number of positions occupied against positions that are vacant. Not all elementary teachers in the 67% meet the minimum entry criteria are registered and qualified to teach. The 33% of unoccupied positions do have elementary teachers on-site teaching in paid positions but not on ALESCO payroll due to entry requirements.

There is a need for verification of all teachers' qualifications and certifications to eliminate fraudulent entries and ensure that only qualified teachers are teaching in the elementary schools. Additionally, upgrading qualifications and competencies of those who meet the minimum qualifications will help to improve the quality of education in the country.

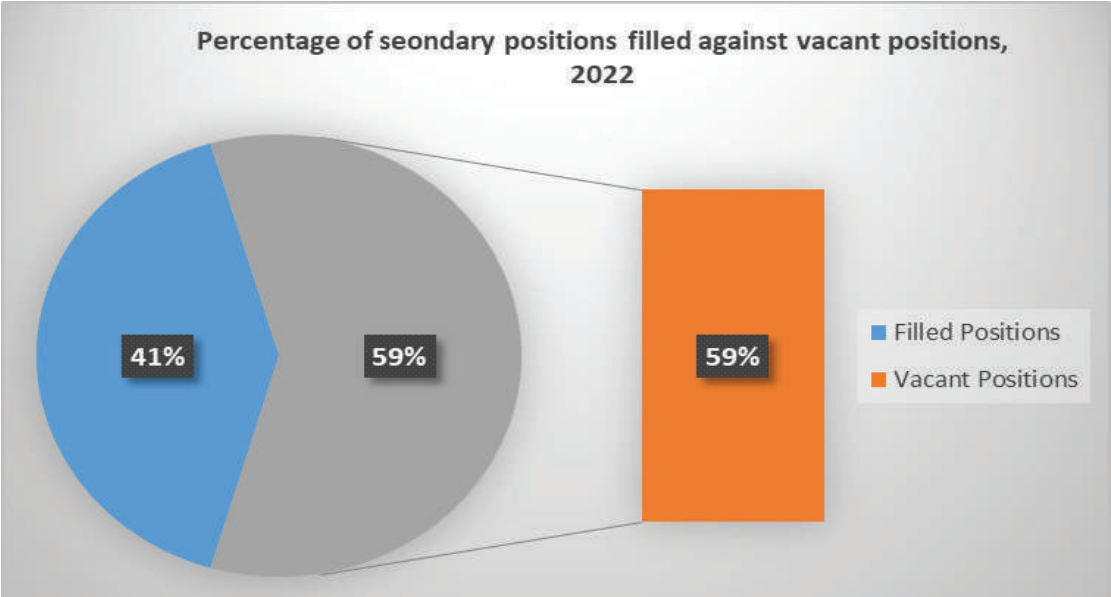
Figure 2.3: Percentage of filled Primary teaching positions against vacancies.



(Source: Teaching Service Commission, Validation Report 2022)

According to Figure 2.2 and Figure 2.3, the percentages of vacancies and occupied teaching positions in both the elementary and primary education were the same in 2022. Nevertheless, when the 1-6-6 school structure is fully implemented, elementary education will have a surplus of teachers, which may lead to an improvement in the percentages in primary education. But the chronic issue of untrained and non-qualified teachers in elementary schools will shift to primary schools when the 1-6-6 school structure is implemented.

Figure 2.4: Percentage of filled Secondary teaching positions against vacancies

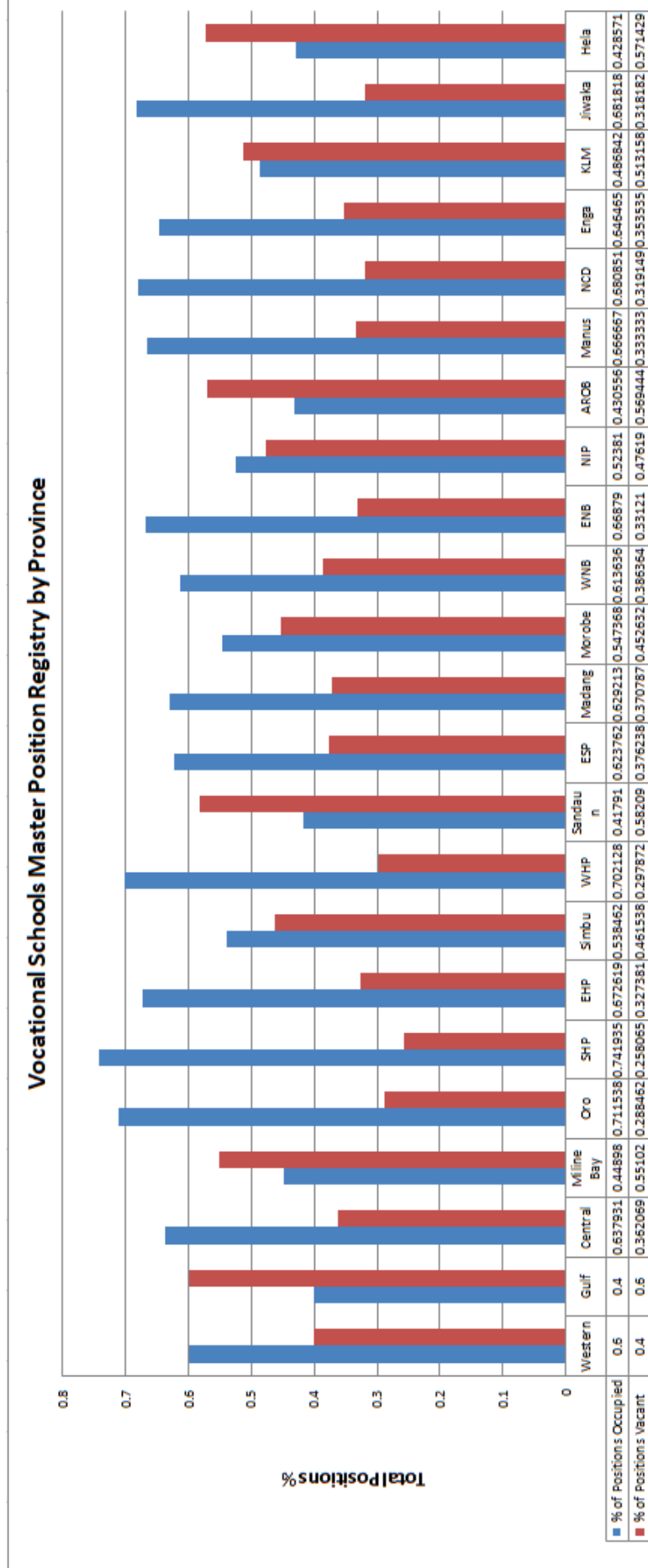


(Source: Teaching Service Commission, Validation Report 2022)

Figure 2.4 above shows a concerning situation in secondary education, where the number of vacancies is at 59%. This situation is expected to worsen with the establishment of junior high schools. Many of these junior high schools are being built or are using the facilities of registered primary schools, and a high proportion of the teachers only have diplomas. Figure 2.5 below shows the scenario in vocational training. Vocational training is quite opposite to the other basic education levels as the number of positions filled are higher than vacancies



Figure 2.5: Vocational schools Master Position Registry by Province



(Source: Teaching Service Commission, Master Position Registry, 2023)

The current supply of teachers is insufficient to meet the demand in basic education. The change to 1-6-6 school structure has not been reflected in the capacity of the system to supply a sufficient number of trained teachers to accommodate the changes. The disparity in service provision and distribution plays a major part in the distribution of teachers to the schools. Teachers are often unwilling to take up postings in remote areas where there is a general lack of government services and allowances for teachers, thus contributing to a lack of quality education in the rural areas.

The teaching profession is generally not regarded as an attractive career choice by school leavers. This is one of the factors that contribute to the high student to teacher ratio in schools. Teacher databases and information management systems are additional challenges and concerns for TSC. The current shift in digital and technological advancement has made it possible for the TSC to launch its first ever Teacher Information Management System (TIMS) in 2021. TIMS is hosted on the NDoE network website. TSC does not administer and manage the TIMS resulting in teachers' information being threatened by unauthorised access. This can only be corrected when the TSC has its own ICT infrastructure.

An additional challenge are the discrepancies in the registry of teachers recorded both manually and electronically. TSC is improving and cleaning its ALESCO Payroll Master Position Register (MPR). Teachers' data, comprising personal and professional profiles such as biodata files, and positions audit projects will be captured in the TIMS. The key determinant to the successful implementation and completion of related and relevant projects is adequate funding.



2.2.10 Libraries and Archives

Library plays a key role in supporting quality education in terms of providing stored information and records. It enhances the Government's development agenda focused on delivering quality Libraries and Archives services for provinces, districts and schools. Having access to libraries and archives facilities greatly improves the standard of teaching, learning and research.

Inadequate libraries and archives infrastructure and non-availability of stored information materials have contributed to a decline in educational standards. Consequently, only six provinces and two districts have functioning provincial and district libraries. Of 12,812 schools in the country, there are only 1,909 schools with libraries. The table below indicates the total number of schools with school libraries in the country.

Table 2.10: Number of Libraries by Education Level

Education Level	Total Schools	School with Libraries	Percentage
Pre-School	8,481	492	6%
Primary	3,901	1,215	31%
High/Secondary	290	185	63%
Vocational	137	17	12%
IERC	24	0	0%
Total	12,812	1,909	15%

(Source: Education Management Information System 2018.)

In addition, lack of skilled expertise in library and archive human resources has contributed to the deterioration of these vital services. The change of curriculum in the education system and a dearth of stored, easily retrieved, information materials within schools has contributed immensely to the difficulties faced by students and teachers on the teaching and learning throughout the years of compulsory education.

The longstanding capacity gaps in library and archival services merit greater investment and reform of public, district and school libraries, accompanied by appropriate human resource development. In an age of rapid technological development, it is critical that partnerships between Library and Archives, the Government, development partners and the private sector must urgently address the challenges set out in the **Investment Table 4** programs for the next five years, so as to facilitate readily available and accessible print, digital and on-line services for learners, researchers and the general public.



2.3 Higher and Technical Education

The Department of Higher Education, Research, Science and Technology (DHERST) and the Papua New Guinea Science and Technology Council Secretariat (PNGSTCS) are the agencies responsible for policy coordination and regulation of Higher Education Institutions (HEIs) that offer post-secondary qualifications and conduct research. The HEIs consist of Technical and Business Colleges, Polytechnic Institutions, Teacher Colleges, Nursing Colleges, Universities and Specialised Colleges. The HEIs can be categorised as either public institutions, private institutions, or agency-owned institutions.

Key legislation governing the effective operation, management, and coordination of HEIs are the *Higher Education (General Provisions) Act* 2014, as amended 2020; the *Higher and Technical Education Reform Act* 2020; the *PNG Science and Technology Act* 1992 and respective Acts of Parliament for the seven existing universities and specialised institutions. Legislative reforms are being implemented in Higher and Technical Education that emanate from the National Executive Council Decision NG 25/2017 to reform and unify the Higher and Technical Education system in PNG. The reform seeks to address fragmentation and improve coordination in the education sector.

2.3.1 Higher Education Institutions

The Higher and Technical Education sub-sector comprises 62 HEIs, offering a wide range of programmes critical for economic and social development. In light of the higher education reform, over 150 private training institutions were transferred from the National Training Council (NTC) and are undergoing registration with DHERST to be listed on the Register⁴. The DHERST is working with the transferred institutions to assist them in meeting the National Standards⁵. The number of HEIs is provided in Table 2.11 below.

Table 2.11: Number of Higher Education Institutions

HEI Type	No. of HEIs
Nursing	12
Teacher	16
Business and Technical	13
University	7
Private and Specialised ⁶	14
Total	62

(Source: National Online Selection System (NOSS), 2022, DHERST)

2.3.2 Enrolments and Graduates

PNG has seen a cumulative growth in enrolments at the HEIs since 2011 as a result of the Tuition Fee Free (TFF) and GTFS Policies; improved legislative and regulatory frameworks, increased awareness on career pathways and alternatives from Basic Education to Higher and Technical Education, and continued Government support in higher and technical education. The demand for higher and technical education has risen dramatically as parents and students consider obtaining higher education credentials as a worthwhile investment in a student's future. The efforts to increase access are commendable but need to be re-evaluated and strengthened to keep pace with a rapidly growing population, labour market demands and global advancement in science and technology.

⁴Refers to the register of HEIs and accredited programs as per the Higher Education General Provisions Act 2014 as amended.

⁵Refers to a set of national standards that higher education institutions must meet to be granted institutional registration and programme accreditation.

⁶Miscellaneous Colleges are colleges offering a mixture of program or specialised programme (Forestry [2], Agriculture [1], Aviation [2], or HEIs that do not fall under any of the other HEIs.

Table 2.12: Enrolments by Institutional Type⁷

Type of HEI	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Universities	18,244	17,721	18,465	16,906	16,057	15,953	16,363	16,036	15,709	15,382	15,055
Technical Colleges	3,493	4,100	4,296	4,346	5,602	5,710	6,155	6,602	7,049	7,496	7,943
Business Colleges	775	1,179	1,155	1,548	2,345	2,595	2,899	3,270	3,641	4,012	4,383
Teacher Colleges	2,666	2,807	4,332	3,831	3,542	4,523	4,716	5,030	5,344	5,658	5,972
Nursing Colleges	370	356	415	649	749	920	993	1,112	1,231	1,315	1,469
Specialised Colleges	3,267	2,433	2,527	4,473	5,696	6,459	6,912	7,703	8,495	9,286	10,077
Total	28,815	28,596	31,190	31,753	33,991	36,160	38,037	39,752	41,467	43,183	44,898

(Source: Annual Survey of Institutions of Higher Education 2011-2016)

While there continues to be a general increase in enrolments across the higher and technical education sub-sector, the trend was opposite for universities. The table above shows that there was a general decrease in university enrolments. This decrease was mainly caused by a decline in part-time students and the closure of amalgamated campuses at two universities, however enrolment at all other universities generally increased.

The Government is limited in its capacity to meet the increasing demand for higher and technical education thus the registration of private providers will, to some extent, assist in addressing the large number of Grade 12 school leavers seeking placement at HEIs. While private providers charge higher tuition fees compared to public HEIs, the Government subsidises tuition fees for students who undertake programs that are accredited and aligned with the Government's priorities. Enrolments in higher and technical education have steadily increased due to the increase in number of Grade 12 school leavers, a rippling effect of the Tuition Fee Free policy; an continued Government support towards higher and technical education especially in state and agency owned HEIs and the increase in private providers.



⁷Statistics from 2017 to 2021 are projections.

The growth in enrolments has also resulted in an increase in the number of graduates from HEIs listed on the National Registry. Number of graduates from specialised, business and technical colleges have increased significantly over the years. Available data from DHERST in Table 2.13 below show that there were over 7,118 total graduates in 2011 and an estimated 17,296 total graduates by 2021, reflecting an average annual increase of 11%.

There is continuing concern regarding the numbers of nursing college graduates where, for example in 2011, there were 116 graduates yet, by 2021, it is estimated that there were only 394 graduates. Considering the need for frontline health workers it is important that this situation is improved.

Table 2.13: Graduates by Institutional Type⁸

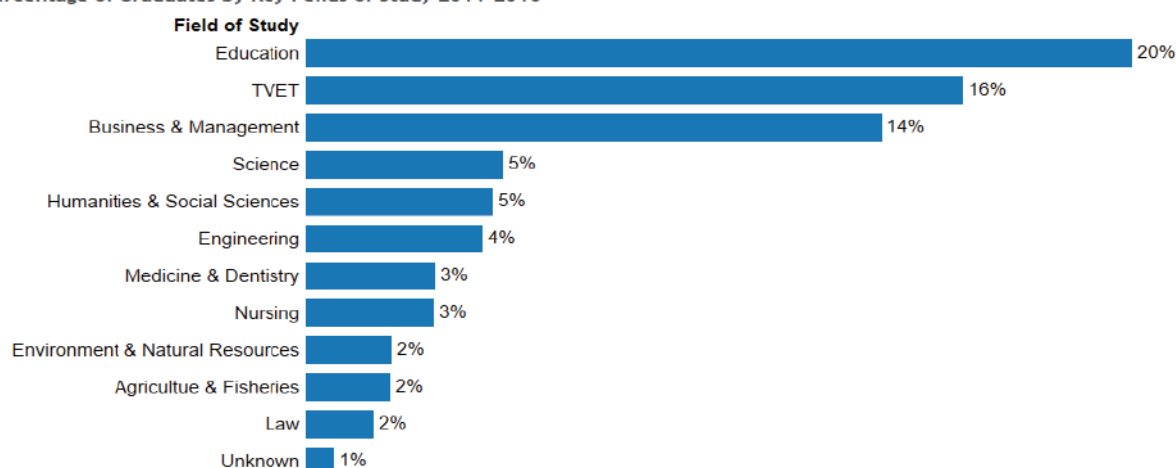
Type of HEI	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Universities	3,999	4,721	4,101	4,169	4,074	4,809	4,530	4,592	4,564	4,716	4,779
Technical College	1,205	796	2,165	2,593	3,622	2,827	3,993	4,389	4,875	5,361	5,848
Business Colleges	205	275	356	536	604	909	949	1,083	1,217	1,351	1,486
Teacher Colleges	1,044	1,096	1,650	1,222	1,574	554	1,046	1,004	963	922	881
Nursing Colleges	116	88	110	218	210	237	271	302	333	364	394
Specialised Colleges	549	1,278	943	1,239	1,703	2,592	2,563	2,899	3,236	3,537	3,910
Total	7,118	8,254	9,315	9,977	11,787	11,928	13,261	14,270	15,279	16,288	17,296

(Source: Annual Survey of Institutions of Higher Education)

Figure 2.6 shows the percentage of graduates by key field of studies between 2011-2016. The majority of the graduates acquired qualifications in the field of education, followed by TVET and Business Management. The percentage of graduates that acquire qualifications in medicine and dentistry, nursing, environment and natural resources, agriculture and fisheries and law are lower when compared to other fields of study. In view of the health workforce shortage identified in the *PNG Health Workforce Crisis: A Call-to-Action report*, there is a pressing need to prioritise growth in health-related disciplines of study.

Figure 2.6: Percentage of Graduates by Field of Study 2011-2016⁹

Percentage of Graduates by Key Fields of Study 2011-2016



(Source: Annual Survey of Institutions of Higher Education)

⁸Statistics from 2017 to 2021 are projections.

⁹Statistics are provided for 2011-2016 only as field of studies projection for the years 2017-2021 were not calculated.

A holistic and collaborative approach is required by the higher and technical education sub-sector, industry and the Government to improve employment opportunities for graduates. The majority of graduates struggle to find formal employment or after graduating due to the lack of available jobs and skills mismatch in the respective industries. As a result, the optimal returns on investment in higher and technical education are not being realised since some graduates cannot contribute effectively to PNGs development.

2.3.3 Challenges and Opportunities in Higher and Technical Education

The higher and technical education sub-sector is currently faced with challenges relating to limited access, poor quality teaching and learning, dilapidated infrastructure and inadequate resourcing, together with poor coordination of the sector. Many of these challenges are ongoing, although some have been more recently brought about by the expansion of the sub-sector. The challenges in higher and technical education are somewhat similar across all categories of institutions.

2.3.4 Limited Access

From 2018 to 2022, the DHERST has experienced an increase in school leavers, HEIs, academic programmes and quotas, all growing at pace. The statistics presented in table 2.14 above shows that there is an 8% growth rate of school leavers. The same pattern of growth is reflected in higher and technical education where the number of HEIs, academic programmes and quotas have increased.

Table 2.14: School leavers and Higher Education Institutions, Programme and Quota

Year	School Leavers	Selected	HEIs ¹⁰	Programme	Quota
2018	26,731	8,572	43	186	10,455
2019	28,109	9,427	43	203	11,829
2020	27,426	9,345	54	255	12,753
2021	26,544	10,800	57	234	15,111
2022	27,900	12,452	62	247	19,414

(Source: National Online Selection System (NOSS), DHERST)

While this growth is encouraging, regrettably it is not enough to cater for the growing population of Grade 12 school leavers annually. DHERST is progressively addressing the issue of limited access to higher education. The number of available spaces in tertiary institutions is expected to grow due to the reform activities, supported by the private higher education providers transferred from NTC to DHERST.

The Government must prioritise the implementation of an integrated higher and technical education policy on the use of information communication technology to support sectoral systems. DHERST is slowly progressing the development of the National Higher and Technical Education Management Information System (NHTEMIS) to improve access, coordination and monitoring of higher and technical education however with very limited financial support. The NHTEMIS will transform the higher and technical education sub-sector into a diverse and growing network of linked HEIs that prepare students at an advanced level.

The NHTEMIS will ultimately comprise the current management information and networking systems such as the National Online Application System (NOAS), the National Online Selections System (NOSS), the Higher Education Loan Programme (HELP) and the Tertiary Education Student Assistance Scheme (TESAS). The NHTEMIS will be further expanded to include

¹⁰Includes amalgamated colleges

systems for managing the quality assurance process, human resource management, project management, learning management systems and e-Library databases for tertiary institutions.

2.3.5 School Leaver Intakes into the Higher and Technical Education Institutions

Even though students may do well by scoring high GPAs, they may not secure a place due to limited quotas in popular programmes. There are many factors that contribute to a student's inability to be successful in their application and the following five factors influence the success of a school leaver's application: personal preference; academic performance; the academic programme quota; the programme requirements and the total number of students applying for the same programme. Based on data and observation, most students are not selected for their first or second choice due to steep competition and limited quota.

While higher education spaces have increased proportionately, the DHERST and the HEIs are faced with the issue of quality of student achievement and learning on entry to post-secondary education. Two universities have therefore opted to conduct external entry exams as part of their selection process as a quality check on prospective students. Tertiary institutions are faced with the inevitable dilemma of how low or high the minimum requirements should be set so as to maintain the quality of their intakes.

Universities have raised several of their programme requirements to a minimum grade of A or B in two or more programmes since the universities have the advantage of more applicants in comparison with other HEI types. Some HEIs are forced to slightly lower their requirements to attract student applications in order to fill their quota and commence the academic year without the risk of not enrolling their remaining quota of students. Nevertheless, in majority of the cases the challenge remains for the colleges finding themselves unable to fill their quota annually.

While there is a high probability of school leavers being able to secure a place in other HEIs than universities, most top performing students are still determined to study at a university. In terms of growth in access to universities and colleges, quotas have dramatically increased at the colleges maintained by private providers, while university enrolments have remained fairly constant. As a result, there is stiff competition to secure a place at the first attempt when applying to a university. However, a large proportion of Grade 12s are not selected or are left to choose alternate pathways, often resorting to private education providers for further education.

In order to mitigate current and future challenges and in the interests of inclusion and also to accommodate the school leavers who are not accepted into HEIs, it is needful for the Government to invest in more of higher education institutions and to expand the existing HEIs capacity using innovative strategies in collaboration with the private sector and development partners.



2.3.6 Quality of Learning

The quality of academic programmes offered in post-secondary institutions varies within the universities and colleges. There are some programmes that have well-established standards and are of high demand from employers in-country and abroad, for example in the fields of engineering and medicine.

A review of PNG universities conducted by Garnaut and Namaliu (2010) argued that there are 'even more pressing problems with the quality of the educational experience. This means that PNG has much to do in ensuring or establishing quality and standards for curricula to meet international benchmarks. However, there are important exceptions, for example the strong demand for geologists trained at the University of Papua New Guinea in the Australian and global mining industries says something positive about quality' (p.12). The Government must work with relevant institutions and industries to ensure the graduates are meeting the employers' requirements and demand for skilled labour.

Most of the national curricula for the colleges have not been regularly reviewed in the last two decades. This has led to the education and training syllabus not aligning to industry developments and critical cross-cutting sectoral issues. The labour market study conducted by Jones and McGavin (2015) identified the poor quality of the TVET graduates as a major concern for firms. Most firms have had to re-train their graduate intake. In addition, Deloitte and the United Nations Development Programme (2017) was clear that difficulties in finding staff with appropriate skills, apart from economic factors, is a major obstacle to firms hiring in PNG.

There are other acute skills shortage areas that provide ready employment for new graduates such as health, nursing and teaching. The current mismatch in the labour market in PNG is a result of both supply and demand issues. The higher and technical education sub-sector must produce graduates equipped with lifelong learning skills, relevant competencies and sufficient knowledge to enter the workforce, while investments in the economy must create more jobs.

More engagement between the higher education actors, industries and government are being implemented as a result of the skills mismatch in the labour market. The establishment of the National Skills Development Agency (NSDA) is one of the major initiatives of the Government to foster private sector collaboration with Technical Vocational Education Training (TVET). Work is progressing to develop training packages through the NSDA. The training packages will ensure the national skills content has the relevant skills for life and the competencies that industry requires. Climate adaptation, gender, and the raising of awareness of the need for social inclusion will also be included in the training packages.

DHERST is also confronted by the challenge of insufficient funding to undertake institutional audits and programme reviews as well as non-compliance in relation to the National Standards by some HEIs. Now that all HEIs are unified under one policy and regulatory agency (DHERST), the Government will aim to ensure all programmes comply with the requirements of the National Standards and the PNG National Qualifications Framework. In turn, this will enable the development of higher education pathways within and across programmes.

2.3.7 Sub-Sector Coordination

There is poor coordination between the various agencies and institutions in the higher and technical education sub-sector. The passing of the Higher and Technical Education Reform Act 2020 has transferred the regulatory oversight of all HEIs to the Ministry of Higher Education, Research, Science and Technology and DHERST from other ministries formerly involved in aspects of higher education. The reform will address the issue of fragmentation and duplication of functions in terms of planning, governance, management, monitoring and evaluation and quality assurance. The Higher and Technical Education Reform Act 2020 provides for a semi-autonomous model of governance for public colleges through their governing councils, as well as added management responsibilities.

A significant challenge for DHERST is to fully implement the reforms in the sector. The budgetary transfer from the affected agencies to DHERST has been implemented. Also, the mandate to register private HEIs and accredit their programmes was transferred to DHERST from the National Training Council. Work on registering the transferred private HEIs and establishing appropriate governance structures and processes within the public colleges to achieve a semi-autonomous governance model is ongoing and represents a government priority. Promoting honesty and good governance is a fundamental objective of the new governance framework. DHERST will work with the public colleges to establish robust planning and reporting requirements. The colleges will be required to develop their institutional strategic and business plans in addition to providing annual audited financial and performance reports.

Apart from improving coordination with public institutions, the higher and technical education sub-sector must be more effectively coordinated to also include the nature of relationships between HEIs, national and provincial government as well as industry and development partners.

There is currently a limited integrated digitalised reporting system that links DHERST to the HEIs. This has resulted in delays and ineffective reporting together with uncoordinated efforts in terms of resource distribution. The overall number of HEIs has grown rapidly, reflecting government's efforts to increase access to learning to the extent that innovative solutions are now required to ensure effective, unified, delivery of higher and technical education services.

Efforts must be undertaken to digitalise the higher education and technical education regulatory, management and services functions. Whilst it is true that some HEIs have already commissioned digitised information and learning platforms, the majority of HEIs lack such systems. The Government is supporting the digitalisation of higher and technical education management and services functions and has successfully initiated the National Online Application System and the National Online Selection System both of which have improved the transparency and efficiency of the school leavers selection into HEIs. The Government is committed to expanding the existing online systems to digitalise functions relating to student registration, scholarships, student loans, institutional registration, programme accreditation, financial reporting, graduate employment destinations and other related functions.

The establishment of strategic partnerships in higher and technical education is a priority for the Government. Provincial and district administrations and politicians have increasingly supported tertiary education students via scholarships. Development partners have supported programmes and projects through scholarships, infrastructure, institutional development and research. Development partner support is coordinated through the central coordinating agencies or directly with HEIs. The Government will strengthen partnerships with industry, provincial governments and development partners to complement their collective efforts. Collaborative platforms will be supported to foster dialogue and communication between the key actors. The NSDA is one of such initiatives which was formally launched by the National Government on July 30, 2019. The NSDA allows for industries and civil society to engage with TVET HEIs to provide advice on skills development priorities, training packages, TVET standards and employment outcomes.

2.3.8 Inadequate Resourcing of Higher Education and Technical Education

The basic education and higher education reforms have created increased access to education, but have also generated other issues, for example inadequate infrastructure, a shortage of academics/trainers and limited financing that must be addressed since they are essential to the quality of higher and technical education services. These changes in the sector also necessitate more effective information management systems that can promote digitalisation for improved service delivery.

One of the most significant obstacles to increasing access to higher and technical education is the inadequate infrastructural capacity of HEIs to support the growing number of Grade 12 students. This is compounded by insufficient teaching and learning resources. HEIs are confronted by severe financial limitations that force most institutions to operate within outdated infrastructure. A further cause of concern is the limited capacity of some HEIs to successfully coordinate and deliver infrastructure development projects, which often results in a waste of resources.

Although the Government is investing in the rehabilitation and development of new physical infrastructure, additional resources are needed to properly rebuild and refurbish damaged and decaying infrastructure. The Government will take steps to ensure higher and technical education services in government financed HEIs are supported by high-quality facilities and teaching and learning resources. A primary focus will be to effectively manage the implementation of infrastructure projects so as to ensure compliance with national standards that will further strengthen and establish the required project management systems and processes.

Inadequate human resources represent a major constraint faced by higher and technical education service providers. HEIs are experiencing workforce shortages, resulting from staff leaving to benefit from other employment opportunities and retirement due to age. The report on State Universities Workforce Requirements (2014) by the DHERST reveals the degree to which a shortage of highly qualified academics is widespread within the sub-sector. At the time of the report in 2014, 19% of academics held doctoral qualifications, 47% were qualified at the postgraduate level while 34% had not progressed beyond their first degree. This balance of staff qualifications is very low by international standards; meanwhile, it is clearly evident that senior teaching staff are quitting academia in search of better job opportunities in the private and public sector.

The Government intends to implement programmes that will concentrate specifically on the upgrading of staff qualifications in higher education and technical education and provide incentives to improve staff retention. Capacity building of the sector's workforce is also required to meet the requirements for major reforms in the general basic education system and the higher and technical education system. Some of the reforms and interventions include government's priorities on providing universal basic education to all school-aged children; restructuring of the formal basic education system to include early childhood learning; semi-autonomous management of colleges and the creation of 30,000 placements for new students.

The overall government budget appropriation to higher education has gradually increased over time, although the actual amount of funding released is often lower than the appropriations. This significantly limits HEIs' ability to manage their limited resources against the backdrop of high inflation.

According to the study on Financing of Higher Education in Papua New Guinea (2011-2019), total higher education sub-sector spending has increased. Total government expenditure on higher education both recurrent and capital was K421 million in 2011 and K585.1 million in 2019. However, considering inflation, the total real government funding (recurrent and capital)

per student had declined. This reflects a continuous shift in government spending towards relying more on parents and students themselves to finance higher education.

The Government will continue to support the sector through the Operational Funding; Public Investment Program (PIP); National Government Tertiary Scholarship and the recently introduced Higher Education Student Loan Program (HELP). Other innovative funding sources will be pursued to complement the traditional funding streams of the Government which are vulnerable to the boom-and-bust cycles of the economy. These sources include the promotion of existing tax incentives to benefit the education sector and the establishment of endowment funds and donations.

Improved financing will be supported by the strengthening of governance and management capacities across all facets of higher education to ensure increased funding is utilised effectively. The Government will promote the establishment of effective funding models to foster a performance-oriented approach.



2.4 Research, Science and Technology

2.4.1 Sub-Sector Overview

Research, science and technology are interdisciplinary bodies of knowledge vital to reforming the education sector so that it becomes both innovative and current.

The Papua New Guinea Science and Technology Council (PNGSTC) Act No.92/1992 empowers the PNG Science and Technology Council and its Secretariat (PNGSTS) to be the state agency responsible for the coordination of national matters relating to Science and Technological Activities (STA).

STA includes activities such as:

1. Research and Development (R&D),
2. Scientific and Technical Education and Training (STET),
3. Scientific and Technological Services (STS).

The first strategy in the 'Science Technology Innovation (STI) Plan 2023-2030' supports the ESDP by highlighting the importance of enhancing PNG's human resources and more so, the scientific and technological workforce.

PNGSTS is utilising a two-pronged approach in its endeavour to support the education sector:

- facilitating Science & Technological Activities (STA) in Higher Education Institutions
- facilitating Scientific & Technological Services (STS) for the Education Sector.



2.4.2 Scenario: Science and Technological Activities in HEIs

Universities are the knowledge hubs of the country since they generate relevant and applicable knowledge for the country through research and thus provide the wherewithal for a scientific and critical thinking workforce.

However, it is not possible to realise the full potential of these knowledge hubs given the dire state of the research infrastructure and the lack of Research and Development personnel in the country.

Allied to the above is the impoverished state of R&D infrastructure. According to the PNG Science and Technology Council Secretariat Research Capacity Assessment Survey Report in 2016, universities had a total of 173 research labs/rooms and a total of 68 R&D buildings. 118 of the 173 research labs were being used for research and training whilst 55 needed major maintenance as they were unusable and in need of replacement.

Table 2.15: Number of Buildings & Research Laboratories committed to R&D

Buildings and research labs	Number of buildings and spaces		
	Public	Private	Universities
Total number of research labs (rooms)	61	5	173
Number of research labs in excellent (new) condition	13	2	63
Number of research labs needing maintenance but fully operational	20	2	55
Number of research labs needing major maintenance or replacement	19	1	55

(Source: PNGSTCS RCAS Report 2016)

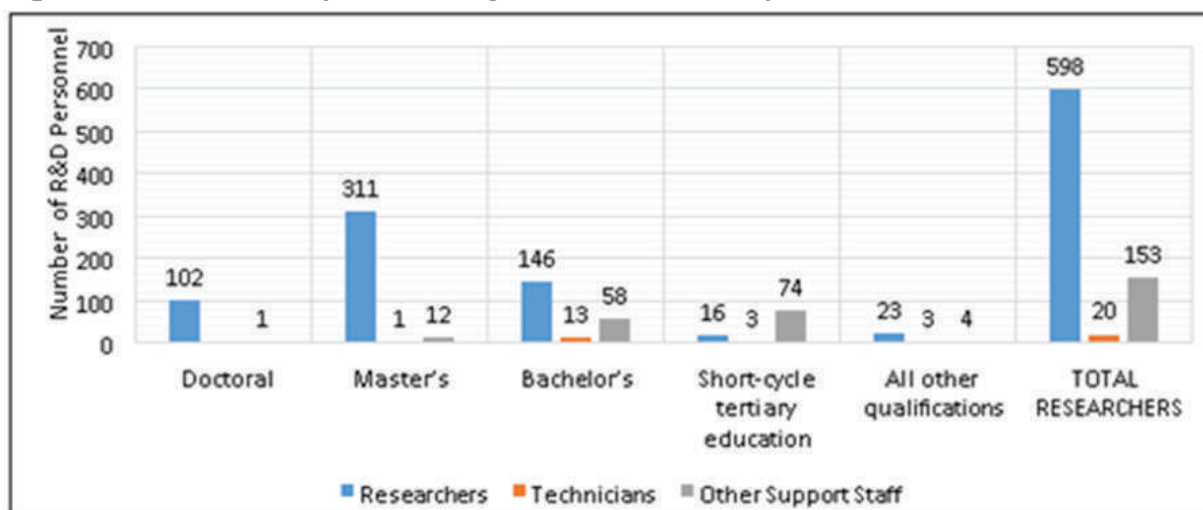
The survey further revealed that the universities had:

- 51 items of R&D equipment that was worth more than K30,000 but with a high maintenance cost of K500,000.
- 32 items were in excellent condition, 9 were in operational condition and the remaining 10 required maintenance and replacement.

The same survey compiled data for R&D personnel from the 30 research centres in the six national universities and 25 research programmes in the ten research institutions. Overall, in 2016, there were 794 researchers, 87 technicians, and 235 support staff in the sector, of which there were 131 PhDs, 360 Masters, 234 Bachelors, and 391 support staff with certificate qualifications.



Figure 2.7: No. of R&D personnel by area of work and qualification



(Source: PNGSTCS RCAS Report 2016)¹¹

2.4.3 Scientific and Technological Services for the Education Sector- Lack of Partnerships

There is a lack of partnerships and collaboration, especially for Education Action Research.

In 2021, the Inventory of Institutional Education Research Programmes across the higher education sub-sector, government and private non-profit recorded only four national level research and development programmes that were dedicated to Education Action Research, in effect two post-graduate programmes and one public R&D program.

R&D in the education system is defined as Educational Sciences by Global Benchmarking and it covers these two main aspects:

- General education - including training, pedagogy, and didactics, and
- Special education - to gifted persons and those with learning disabilities.

The ESDP provides the opportunity for more collaboration for Education Action Research and, furthermore, the publication and dissemination of the research findings for policy makers and educators.



¹¹Most of the data collected by RCAS 2016 is now captured through UNESCO online data portal [UIS data](#).

2.4.4 Public Investment in Research & Development

The current public investment in R&D remains at about 0.03% of the GDP within a period of five years, despite the stated aspiration of Vision 2050 to increase this to 5% year on year.

Underfunding in the RST sub-sector is reflected in the current poor state of research facilities in almost all universities and research institutions. This limitation affects the quality of research that is undertaken, R&D personnel competency and the translation of R&D output into goods and services for applications and use at different levels of society.

Vision 2050 highlights the need to increase, improve and support current research-based institutions and universities to produce high-quality research and development outcomes that will provide focused solutions for the country's needs.

In the next five years, the GoPNG will invest heavily in the SPA 4 of the MTDP and the ESDP to address the critical constraints in the education sector as highlighted in the preceding sub-sections. Development partners are expected to support GoPNG fund the implementation of the ESDP's investment programs and projects as outlined in the next section, Part 3.





UoG Students studying in the library

PART

3

Aligning ESDP Sector Logical Frameworks to the MTDP IV



**EDUCATION SECTOR DEVELOPMENT PLAN
2023 - 2027**

PART 3: ALIGNING ESDP SECTOR LOGICAL FRAMEWORKS TO THE MTDP IV

A total of 21 logical frameworks (logframes) have been submitted by the education sector agencies. The logframes are aligned to the sectorial plans and MTDP IV. Part 3 provides a series of prefaces that outline the goals and objectives for the various agencies in the education sector.

ESDP TWENTY (21) LOGICAL FRAMEWORKS

- | | | |
|---|--|--|
| 1.  Basic Education Governance | 8.  Flexible Open & Distance Education | 15.  Business Colleges, Technical Colleges & Polytechnic Institutes |
| 2.  Early Childhood Education | 9.  Inclusive Education | 16.  Agriculture & Specialised Colleges |
| 3.  Pre-school | 10.  Teaching Service | 17.  Nursing Colleges |
| 4.  Primary Education | 11.  National Library & Archives | 18.  Teacher Colleges |
| 5.  High/Secondary Schools | 12.  Literacy Education Service | 19.  Universities |
| 6.  Vocational Centres | 13.  Governance of Literacy Education Service | 20.  Research, Science & Technology |
| 7.  National Schools of Excellence | 14.  Higher & Technical Education Governance | 21.  Education Sector Workforce Development |

3.1 BASIC EDUCATION

3.1 Basic Education Governance

Goal: To ensure effective governance of basic education system that provides quality education and training for all.

The initiative aims to strengthen the education system governance at the national, provincial, and school levels. This is intended to effectively govern, administer, and manage the national education system to improve service delivery across all levels. It also seeks to support the implementation of policy directives that enhance teaching and learning in schools, and to ensure that governance and management mechanisms are in place to support improved student learning outcomes.

The key result areas expected from this initiative are as follows:

- The highest levels of transparent governance that are both flexible and responsive to the needs of those working in the school system.
- The national department and provincial administrations having coordinated governance through ICT links.
- An expansion of ICT infrastructure to connect national, provincial, district, and school administration.

Strategies to achieve these goals focus on strengthening the basic education sector through coordinated governance, inclusive access, and the maximization of resources to deliver equitable and quality learning outcomes for all.

The main beneficiaries of this initiative include:

- i. National Education System Schools
- ii. Students
- iii. Teachers
- iv. School Boards
- v. Community

Partnership and collaboration are key to the successful implementation of this initiative. The partners involved are:

- Department of Education (Policy and Provincial Support Directorate)
- Teaching Service Commission (TSC)
- Office of Legislative Affairs (OLA)
- Central Government Agencies
- Provincial Governments
- Church Agencies
- Private Partners

The total investment allocated to basic education governance is **K9.98 million**. This covers three major intervention programs: Basic Education, Secondary Education, and Education Policies Audit Programs. This significant financial commitment reflects the Government of Papua New Guinea and its partners' dedication to enhancing the education sector. By strategically allocating these funds, the initiative aims to address existing gaps in education provision, improve access to quality education, and cultivate a more educated and skilled population. These efforts contribute to the achievement of the *Medium-Term Development Goals*, the *Sustainable Development Goals*, and the *overall well-being of communities* across the country.

3.1 BASIC EDUCATION GOVERNANCE

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Tot estimated costs (K mil)	Funding Source(s)
DIP 4.2	1. New Primary & Secondary Schools Establishment Program 2. Education Infrastructure Development Program (SLIP)	1. Basic Education	NDoE	Provinces/ Districts	0.14	1.0	1.0	1.0	1.0	4.14	GoPNG/DP's/ PPP
		2. Secondary Education	NDoE	Provinces/ Districts	0.14	1.0	1.0	1.0	1.0	4.14	GoPNG/DP's/ PPP
		3. Education Policies Audit Programs	NDoE	National	0.1	0.4	0.4	0.4	0.4	1.7	GoPNG/DP's/ PPP
Total					0.38	2.4	2.4	2.4	2.4	9.98	

Table 2: Key Result Areas

No	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Number of schools and institutions registered	15,471	18,239	21,007	23,775	26,543	NDoE
2.	Number of schools benefiting from GTFS	15,471	18,239	21,007	23,775	26,543	NDoE
3.	Number of textbooks per child	1:5	1:5	1:4	1:4	1:3	NDoE
4.	Percentage of digital contents developed	5%	5%	7%	9%	11%	NDoE
5.	Percentage of research report endorsed	40%	45%	50%	55%	60%	NDoE
6.	Number of districts accessing EDNET	43	45	47	49	52	NDoE
7.	Number of the correct age and eligible students enrolled/admitted	1,585,375	1,869,909	2,154,443	2,438,977	2,723,510	NDoE

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Establish and maintain a sufficient number of schools and school facilities	National Education Plan 2020-2029
2.	Develop and supply a sufficient number of textbooks to schools	National Education Plan 2020-2029
3.	Provision of the required number of appropriately trained teachers and school administrators	National Education Plan 2020-2029
4.	Utilize the potential of ICT across the whole education and training sector	National Education Plan 2020-2029

No.	Sector Strategy	Sector Plan or Policy Reference
5.	Coordinated implementation of the National Education Plan	National Education Plan 2020-2029
6.	Integration of planning and budgeting at all levels and promote good governance	National Education Plan 2020-2029
7.	Effective and equitable schools financing	National Education Plan 2020-2029
8.	Develop the capacity of the DoE and TSC to improve culture, systems and structures across the sector	National Education Plan 2020-2029
9.	Support for the disadvantaged in society	National Education Plan 2020-2029
10.	Provision of funds to undertake independent major reviews and studies as and when required	National Education Plan 2020-2029

Table 4: Indicators

Project Link	Outcome Indicators	Source	Baseline (2018)	Annual Targets				
				2023	2024	2025	2026	2027
1-3	1. Number of existing and newly build schools affecting the new governance and performance management framework arrangement	GES Report	12,703	15,471	18,239	21,007	23,775	26,543
1-3	2. Number of eligible students enrolled in schools and institutions	EMIS	2,300,840	2,585,375	2,869,909	3,154,443	3,438,977	3,723,510
1-3	3. Number of provinces using Management Information System	ICT Report	6	10	12	14	16	18
1-3	4. Number of schools with endorsed School Board	GES Report	12,703	15,471	18,239	21,007	23,775	26,543
1-3	5. Percentage of schools inspected by Parity and Remoteness Index (PARI) category	Inspection Report	10%	20%	30%	40%	50%	60%
1-3	6. Percentage of schools receiving annual subsidy funding	EMIS	94%	96%	97%	98%	99%	100%
1-3	7. Percentage of government expenditure on general education against as a share of Total government expenditure and GDP	IFMS	30%	32%	34%	36%	38%	40%
1-3	8. Percentage of schools receiving resource books and materials procured	Procurement	40%	44%	50%	55%	60%	65%
1-3	9. Number of endorsed research reports	Research	14	22	25	28	31	34
Lead Government Agency		National Department of Education						
Executing Agency		National Department of Education/Province/District						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						

3.1.2 Pre-school

3.1.2.1 Early Childhood Education

Goal: All Papua New Guinean children are provided with an opportunity to enroll in an Early Childhood Education programme to ensure school readiness for entry into the formal education system.

The objective of this initiative is to establish and strengthen Early Childhood Education (ECE) policy within the National Education System. This is intended to support the effective implementation of ECE and to advocate for and implement policy interventions that formalize and integrate ECE into the broader education sector.

The key result areas expected from this initiative include:

- An established ECE framework for children aged 4 and 5 years within the formal National Education System
- An increased number of ECE teaching workforce
- Improved ECE teacher training programs
- Enhanced ECE infrastructure and learning resources
- An established ECE curriculum framework

To achieve these results, a set of key strategies has been identified to formalize the ECE sector within the National Education System. These strategies include:

- Strengthening policy, management, and governance mechanisms
- Improving ECE teacher training capacity
- Enhancing infrastructure and learning resources
- Establishing a robust and relevant ECE curriculum

The intended beneficiaries of this initiative are diverse and include:

- Schools within the National Education System
- Early learners
- ECE teachers
- Local communities
- Private and Church Agency schools

Collaboration with key partners is central to the success of this initiative. The partners involved in implementation and support include:

- i. Department of Education (School Directorate)
- ii. Teaching Service Commission (TSC)
- iii. Office of Legislative Affairs (OLA)
- iv. Department of Community Development, Youth and Religion
- v. Provincial Governments
- vi. Church Agencies
- vii. Private ECE Schools

A total of **K50.50 million** has been committed to Early Childhood Education through seven major intervention programs. These programs are:

1. ECE Development Program on Curriculum (Standards-Based Curriculum) and Toolkit
2. ECE Development Program on Parents Education

3. ECE Development Program on Inspections and Registrations
4. ECE Development Program on Governance
5. ECE Development Program on Communication and Mobilization Strategy
6. ECE Model Ward Infrastructure Program
7. ECE WaSH in School Infrastructure Program

This significant financial commitment to ECE reflects the Government of Papua New Guinea and its partners' dedication to strengthening the education sector from the earliest years. Through the strategic allocation of resources, this initiative aims to address current gaps in educational provision, expand access to quality early childhood education, and foster a more educated and skilled population. Ultimately, these efforts contribute to achieving the *Medium-Term Development Goals*, the *Sustainable Development Goals*, and the overall well-being of communities across Papua New Guinea.



3.II EARLY CHILDHOOD EDUCATION LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.1	1. Early Childhood Education Development Programme 2. Rural WaSH Intervention Programme	1. ECE Development Program on Curriculum(SBC) and Toolkit	NDoE	National/ Province/ District	0.05	0.50	0.50	0.50	0.50	2.05	GoPNG/ DPs/PPPs
DIP 4.1		2. ECE Development Program on Parents Education	NDoE	National/ Province/ District	0.20	0.50	0.50	0.50	0.50	2.20	GoPNG/ DPs/PPPs
DIP 4.1		3. ECE Development Program on Inspections & Registrations	NDoE	National/ Province/ District	0.25	2.00	2.00	2.00	2.00	8.25	GoPNG/ DPs/PPPs
DIP 4.1		4. ECE Development Program on Governance	NDoE	National/ Province/ District	0.25	1.00	1.00	1.00	1.00	4.25	GoPNG/ DPs/PPPs
DIP 4.1		5. ECE Development Program on Communication & Mobilization Strategy	NDoE	National/ Province/ District	0.25	1.00	1.00	1.00	1.00	4.25	GoPNG/ DPs/PPPs
DIP 4.1		6. ECE Model Ward Infrastructure program	NDoE	National/ Province/ District	1.00	5.00	5.00	5.00	5.00	21.00	GoPNG/ DPs/PPPs
DIP 2.6		7. ECE WaSH in school infrastructure program	NDoE	National/ Province/ District	0.50	2.00	2.00	2.00	2.00	8.50	GoPNG/ DPs/PPPs
Total					2.50	12.00	12.00	12.00	12.00	50.50	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Completion of the ECE Costing Analysis	✓					NDoE
2.	Number of ECE model preschools established in Wards	120	300	900	2100	2700	NDoE
3.	Production of ECE teaching and learning Toolkit		✓	✓			NDoE
4.	System developed for registrations, inspections and monitoring		✓				NDoE

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Develop relevant inclusive ECE Curriculum play materials suiting developmental and learning needs for aged 4 and 5 children.	National Education Plan 2021 - 2029 / ECE Policy 2020
2.	Establish inclusive ECE preschools in the country	National Education Plan 2021 - 2029 / ECE Policy 2020
3.	Provide quality inclusive ECE school readiness program for 4- and 5-year-old children through Public Private Church Community Partnership	National Education Plan 2021 - 2029 / ECE Policy 2020
4.	Conduct inspection programs for ECE schools	National Education Plan 2021 - 2029 / ECE Policy 2020
5.	Inclusive ECE Communication and Mobilisation Strategy	National Education Plan 2021 - 2029 / ECE Policy 2020
6.	Conduct the ECE costing analysis	National Education Plan 2021 - 2029 / ECE Policy 2020

Table 4: Indicators

Project Link	Outcome Indicator	Source	Baseline (2018)	Annual Targets				
				2023	2024	2025	2026	2027
1-7	1. Percentage of schools at each level using SBC National curriculum	EMIS	2%	5%	15%	25%	35%	45%
	2. Percentage of ECE schools inspected	EMIS	0.5%	5%	15%	25%	35%	45%
	3. Proportion of Ward with one ECE model preschool (K1 & K2) registered.	EMIS	2%	5%	15%	25%	35%	45%
	4. Proportion of ECE infrastructure established in wards.	EMIS	0%	5%	15%	25%	35%	45%
	5. Gross enrolment rate for ECE preschool children.	EMIS	8%	5%	10%	25%	35%	45%
	6. Proportion of ECE schools with board of management	EMIS	0	20	40	60	80	100
Lead Government Agency		National Department of Education						
Executing Agency		National Department of Education/Province/District/LLGs/Churches						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						

3.1.2.2 Pre-school

Goal: To establish pre-schools at the community level throughout Papua New Guinea to create an opportunity to allow all the six – years old children to enroll in a preparatory grade to acquire literacy and numeracy skills.

The objective of this initiative is to expand education coverage and boost access and participation for all six-year-old children across Papua New Guinea. This includes the universal establishment of prep grades within the formal school structure where appropriate, and aims to improve student outcomes by ensuring the provision of appropriate quality student enablers. These enablers include curriculum, teacher training, school leadership, permanent classrooms, teacher guides and syllabuses, school library resources, basic teaching and learning materials, water and sanitation facilities, and both teacher and student welfare. Additionally, the initiative seeks to institutionalize teacher training for pre-service teachers, improve leadership in all pre-schools, and foster consistent support from communities and local level governments.

The key result areas expected from this initiative include:

- A structured prep grade system aligned with the new 1-6-6 school reform
- Improved student learning outcome enablers, including implementation of the Standards-Based Curriculum (SBC) and deployment of qualified teachers
- An increased number of qualified teachers trained through teacher training institutions
- A rise in the number of trained school leaders, along with stronger support from community leaders, including local-level governments and ward authorities

To achieve these outcomes, several strategic actions will be implemented. These include:

- Expanding pre-school infrastructure
- Providing and rolling out the SBC curriculum in prep grades
- Offering robust support for pre-school programs, including water, sanitation, and hygiene (WaSH), governance, mobilization, and communication strategies

The initiative is expected to benefit a broad group of stakeholders, including:

- The Department of Education (DoE)
- Provincial Education Boards (PEB)
- Districts, Local-Level Governments (LLGs), and Ward administrations
- Pre-schools and their students
- Parents and community members

Partnership is a key element of successful implementation, with the following groups identified as key stakeholders and contributors:

- Department of Education (DoE)
- School Directorate
- Provincial, District, LLG, and Ward authorities
- Church agencies
- Private partners
- Community groups

The total investment committed to the Pre-school program amounts to **K51.50 million**, which will support six major intervention programs. These programs include:

1. Preschool Infrastructure Expansion Programme
2. Preschool Curriculum Programme on SBC rollouts
3. Preschool Program on Governance
4. Preschool Program on Parenting Education
5. Preschool Program on Communication and Mobilization Strategy
6. Preschool WaSH in Schools Program

This substantial financial investment in preschool education highlights the commitment of the Government of Papua New Guinea and its partners to enhancing early learning. By strategically allocating resources, the initiative aims to close gaps in educational provision, increase access to quality education, and cultivate a more educated and capable population. These efforts contribute meaningfully to the achievement of the *Medium-Term Development Goals*, the *Sustainable Development Goals*, and the overall *well-being of communities* across the country.



3.III PRE-SCHOOL LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Invest-ment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.1	1. Early Childhood Ed-ucation Development Programme 2. Rural WaSH interven-tion Programme	1. Preschool Infrastructure Expansion Programme	NDoE	National/ Prov-ince/ District	2.00	9.00	9.00	9.00	9.00	38.00	GoPNG/ DPs/PPPs
DIP 4.1		2. Preschool Curriculum Programme on SBC rollouts.	NDoE	National/ Prov-ince/ District	0.10	0.20	0.20	0.20	0.05	0.75	GoPNG/ DPs/PPPs
DIP 4.1		3. Preschool Program on Governance	NDoE	National/ Prov-ince/ District	0.35	0.25	0.25	0.25	0.20	1.30	GoPNG/ DPs/PPPs
DIP 4.1		4. Preschool Program on Parenting Education	NDoE	National/ Prov-ince/ District	0.25	0.25	0.25	0.25	0.25	1.25	GoPNG/ DPs/PPPs
DIP 4.1		5. Preschool Program on Communication & Mobilization Strategy	NDoE	National/ Prov-ince/ District	0.30	0.30	0.30	0.30	0.50	1.70	GoPNG/ DPs/PPPs
DIP 2.6		6. Preschool WaSH in schools program	NDoE	National/ Prov-ince/ District	0.50	2.00	2.00	2.00	2.00	8.50	GoPNG/ DPs/PPPs
Total					3.50	12.00	12.00	12.00	12.00	51.50	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Number of new permanent classrooms built	606	232	100	100	100	NDoE and Primary Schools
2.	Community awareness on importance of schooling	0	1	5	10	15	NDoE and Primary Schools
3.	Number of adequate toilet facilities in pre-schools	30	30	30	30	30	NDoE and Primary Schools
4.	Number of schools with adequate drinking water	400	400	400	400	400	NDoE and Primary Schools

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Sufficient permanent preschool classrooms built/Improve school infrastructure	National Education Plan 2020-2029
2.	All 6-year-olds are enrolled in preparatory grade.	National Education Plan 2020-2029
3.	Provision of adequate toilets and drinking water facilities in place/Improve WaSH facilities in schools	National Education Plan 2020-2029

Table 4: Indicators

Project Link	Outcome Indicator	Source	Baseline (2018)	Annual Targets				
				2023	2024	2025	2026	2027
1-6	1. Percentage of preschool with ECE experience (K1, K2 & preschool)	EMIS	0%	10%	15%	20%	25%	30%
	2. Gross enrolment rate in Preschool (%)	EMIS	145%	144%	143%	142%	141%	140%
	3. Net enrolment rate in Pre-school (%)	EMIS	88%	89%	90%	91%	92%	93%
	4. Proportion of schools having sufficient and adequate toilets for their pupils	EMIS	83%	86%	86%	87%	87%	88%
	5. Percentage of pre-schools having adequate drinking water facilities for their pupils	EMIS	64%	66%	68%	70%	72%	75%
	6. Pupil Teacher Ratio-Elementary/ Preschool	EMIS	20:1	23:1	26:1	29:1	31:1	33:1
	7. Percentage of schools using preschool curriculum	CDD	90%	90%	92%	92%	94%	94%
Lead Government Agency			National Department of Education					
Executing Agency			National Department of Education/Province/District/ LLG/Churches					
Sector Coordination Mechanism			Education Sector Development Plan Steering Committee					



3.1.3 Primary Education

Goal: To improve the provision of six years quality Primary Education from Grades 1 – 6.

The objective of this initiative is to ensure that six years of primary education is both accessible and affordable for all children aged 7 to 12. The aim is for all children in this age group to successfully attain the basic minimum skills and knowledge expected at the primary education level.

To achieve this, the initiative will focus on establishing new primary schools where needed and expanding existing ones with appropriate, quality infrastructure. It also emphasizes the importance of strong school leadership, community support, effective partnerships, quality teacher training, and sound curriculum, management, and administration practices. Furthermore, efforts will be made to improve the teaching qualifications of all teachers to a higher degree and to provide adequate support for inspectors to monitor school standards and teaching effectiveness.

The expected key result areas from this initiative include:

- Accessible primary schools established in underserved areas
- Maintenance of school classrooms and special buildings
- An increased number of qualified teachers with appropriate credentials
- Improved WaSH (Water, Sanitation and Hygiene) facilities in schools
- More frequent school visits by inspectors and school leaders to ensure quality and compliance

To achieve these results, a number of core strategies will be implemented:

- Improve primary school classrooms and special infrastructure, such as libraries and science labs
- Restructure the primary sector under the 1-6-6 school reform model
- Enhance WaSH facilities across schools to support a healthy learning environment
- Increase the enrolment of girls in primary schools
- Boost the production and distribution of textbooks tailored for primary education

The initiative will benefit a wide range of stakeholders, including:

- The Department of Education (particularly General Education Services, Policy and Planning Division, and the Inspection Services)
- Primary schools
- Students and teachers
- Parents and guardians

The key partners supporting the implementation of this initiative are:

- Department of Education (DoE)
- Schools Directorate
- Provincial and District education authorities
- Church agencies
- Private partners
- Local communities and parents

The total investment allocated to this initiative is **K649.44 million**, directed toward six major intervention programs. These include:

1. Primary Education 1-6-6 School Infrastructure Programme, which covers classrooms, school libraries, computer and science labs, and teacher housing
2. Primary Education Standards-Based Curriculum Programme
3. Primary Education Governance Programme
4. Primary Education 1-6-6 Planning Programme
5. Primary Education 1-6-6 Administration Programme
6. Primary Education WaSH in Schools Infrastructure Programme

This significant financial commitment reflects the dedication of the Government of Papua New Guinea and its partners to strengthening the primary education sector. By strategically investing in infrastructure, curriculum, governance, and quality assurance, the initiative seeks to close educational gaps, improve access to quality learning, and cultivate a more educated and skilled population. These efforts align with and contribute directly to the achievement of the *Medium-Term Development Goals*, the *Sustainable Development Goals*, and the overall well-being of communities throughout the country.



3.IV PRIMARY EDUCATION LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.2	1. New Primary & Secondary Schools Establishment Program 2. Education Infrastructure Development (SLIP) 3. Education Curriculum Development Programme 4. Rural WaSH Intervention Programme	1. Primary Education 1-6-6 School Infrastructure Programme (Classrooms, Schools Library/Computer Labs, Science Labs, Teachers houses)	NDoE	National/ Province/ District	15.3	149.74	149.74	149.74	149.74	614.26	GoPNG/ DPs/ PPPs
DIP 4.2 DIP 4.5		2. Primary Education Standard Base Curriculum Programme	NDoE	National/ Province/ District	0.1	1.0	1.0	1.0	1.0	4.10	
DIP 4.2		3. Primary Education Program on Governance	NDoE	National/ Province/ District	0.1	1.0	1.0	1.0	1.0	4.10	
DIP 4.2		4. Primary Education 1-6-6 Planning Programme	NDoE	National/ Province/ District	0.35	0.64	0.64	0.62	0.63	2.88	
DIP 4.2		5. Primary Education 1-6-6 Administration Programme	NDoE	National/ Province/ District	0.36	0.94	0.98	0.995	1.09	4.365	
DIP 2.6		6. Primary Education WaSH in Schools Infrastructure Program	NDoE	National/ Province/ District	3.75	4.00	4.00	4.00	4.00	19.75	
Total					19.96	157.32	157.36	157.36	157.46	649.46	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Number of primary schools restructured (G1 to G6)	830	1,453	2,075	2,490	2,907	NDoE and Primary Schools
2.	Number of primary schools with endorsed School Learning Improvement Plans	2,491	2,906	3,321	3,736	4,151	NDoE and Primary Schools
3.	Number of schools with clean water available	224	224	224	224	224	NDoE and Primary Schools
4.	Number of existing classrooms rehabilitated	44	88	132	176	220	NDoE and Primary Schools
5.	Number of primary schools with primary SBC kits	830	1,453	2,075	2,490	2,906	NDoE and Primary Schools

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Restructure primary sector to 1-6-6	National Education Plan 2020-2029
2.	Increase and improve enrolment of students in primary schools	National Education Plan 2020-2029
3.	Improve WASH Facilities in schools	National Education Plan 2020-2029
4.	Promote and increase enrolment of girls in primary schools	National Education Plan 2020-2029
5.	Improve primary school infrastructure	National Education Plan 2020-2029
6.	Increase production and distribution of textbooks for primary schools	National Education Plan 2020-2029
7.	Strengthen coordination with provincial materials supply officers and district education managers to distribute textbooks	National Education Plan 2020-2029

Table 4: Indicators

Project Link	Outcome Indicators	Source	Baseline (2018)	Annual Targets				
				2023	2024	2025	2026	2027
1-6	1. Gross enrolment rate in Primary Education (%)	EMIS	78%	82%	82%	83%	83%	84%
	2. Net enrolment rate in Primary Education (%)	EMIS	59%	62%	64%	66%	68%	70%
	3. Transition Rate (%) Gr 8 to Gr 9	EMIS	56%	64%	65%	66%	66%	67%
	4. Gender Parity Index (GPI)	EMIS	0.94	0.95	0.96	0.97	0.98	0.99
	5. Pupil Teacher ratio	EMIS	1:31	1:32	1:33	1:34	1:35	1:35
	6. Student textbook ratio	EMIS	3:1	3:1	2:1	2:1	2:1	1:1
	7. Percentage of schools using SBC National Curriculum	EMIS	50%	55%	60%	65%	70%	75%
	8. Percentage of students reaching national numeracy standards (G3)	PILNA	85%	86%	86%	90%	90%	90%
	9. Percentage of students reaching national literacy standards (G3)	PILNA	38%	40%	40%	55%	55%	55%
	10. Percentage of students reaching national numeracy standards (G5)	PILNA	83%	85%	85%	90%	90%	90%
	11. Percentage of students reaching national literacy standards (G5)	PILNA	51%	55%	55%	65%	65%	65%
	12. Percentage of schools having access to clean water	EMIS	90%	92%	94%	96%	98%	100%
	13. Percentage of schools inspected	ID	80%	81%	82%	83%	84%	85%
	14. Proportion of schools having sufficient and adequate toilets for their pupils	EMIS	83%	86%	86%	87%	87%	88%
	15. Percentage of classrooms rehabilitated	EMIS	20%	20%	18%	18%	16%	16%
Lead Government Agency		National Department of Education						
Executing Agency		National Department of Education/Province/District/LLG						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						

3.1.4 High School and Secondary Education

Goal: To improve the provision of six years quality secondary education from grades 7 – 12.

The objective of this initiative is to ensure that higher school education is both accessible and affordable for all children aged 13 to 18. The focus is on providing education that is delivered by appropriately trained and qualified teachers, using the Standards-Based Curriculum (SBC) to support quality learning outcomes.

To achieve this, the initiative aims to establish new high/secondary schools where needed and expand existing infrastructure, including classrooms, special-purpose buildings, and curriculum-related resources such as textbooks and computers. It also seeks to improve teacher training by ensuring that high/secondary school teachers attain higher degree qualifications. Additional support will be given to the production and distribution of SBC materials across all subjects and grades. The program will also strengthen school management and administration, and enhance monitoring and evaluation efforts for high/secondary education.

The key result areas expected from this initiative include:

- An increased number of high/secondary schools established
- Higher student enrolment rates in high/secondary schools
- A greater number of High/Secondary School Flexible Open and Distance Education (FODE) Centres
- Improved WaSH (Water, Sanitation and Hygiene) infrastructure
- An increased number of qualified teachers in the workforce
- Better distribution and usage of SBC materials
- More special-purpose buildings and science laboratories established
- A rise in school and monitoring visits conducted by inspectors and school leaders

To achieve these outcomes, several strategies will be implemented:

- Restructure high and secondary education under the 1-6-6 school reform
- Improve student retention rates
- Construct and equip special buildings and science laboratories
- Enhance WaSH facilities in schools
- Roll out and promote key school policies
- Support teacher training programs, especially in mathematics and science
- Improve the supply and distribution of SBC materials to schools
- Strengthen support for inspector and school leader visits to ensure quality monitoring

The primary beneficiaries of this initiative include:

- The Department of Education (General Education Services, Policy and Planning Division, and Inspection Services)
- High and secondary schools
- Students, teachers, school boards, and parents

Implementation will be carried out in collaboration with key partners such as:

- Department of Education
- Schools Directorate
- Teaching Service Commission (TSC)
- Office of Legislative Affairs (OLA)
- Central Government Agencies (including the Planning Department)

- Provincial and district education authorities
- Church agencies, private partners, and community stakeholders

The total investment committed to high and secondary education amounts to **K181.98 million**, covering eleven major intervention programs. These include:

1. Secondary 1-6-6 School Infrastructure Programme (covering classrooms, libraries, computer labs, and teacher housing)
2. Secondary Standards-Based Curriculum Programme
3. Secondary 1-6-6 Governance Programme
4. Secondary 1-6-6 Planning Programme
5. Secondary 1-6-6 Administration Programme
6. Secondary Science Infrastructure and Equipment Programme
7. Secondary WaSH Infrastructure Programme
8. Secondary 1-6-6 ICT in School Programme
9. Secondary 1-6-6 Accelerated Girls Education Programme
10. Secondary School Development Sports Programme
11. Secondary Gender Equity Programme

This significant financial commitment reflects the Government of Papua New Guinea and its partners' unwavering dedication to strengthening the education sector. By strategically allocating resources, this initiative seeks to close existing educational gaps, broaden access to quality secondary education, and foster a skilled and knowledgeable population. Ultimately, these efforts contribute directly to the realization of the *Medium-Term Development Goals*, the *Sustainable Development Goals*, and the *overall well-being of communities* throughout the nation.



3.V HIGH/SECONDARY EDUCATION LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.2	1. New Primary & Secondary Schools Establishment Program 2. Education Infrastructure Development (SLIP) 3. Education Curriculum Development Programme 4. Rural WaSH Intervention Programme 5. National Telecommunication Infrastructure Programme 6. Girls Education Support Programme & Curriculum/Training Scholarships 7. Sports Research Education Programme 8. Gender Based Violence & Meri Seif Haus	1. Secondary Education 1-6-6 School Infrastructure program: Classrooms, Schools Library/ Computer Labs, Teachers houses	NDoE	National/ Province/ District	11.45	21.6	21.6	21.6	21.6	97.85	GoPNG/ DPs/ PPP
DIP 4.2		2. Secondary Education Standard Based Curriculum Programme	NDoE	National/ Province/ District	0.10	1.0	1.0	1.0	1.0	4.10	
DIP 4.2		3. Secondary Education 1-6-6 Governance Programme	NDoE	National/ Province/ District	0.09	1.0	1.0	1.0	1.0	4.09	
DIP 4.2		4. Secondary Education 1-6-6 Planning Programme	NDoE	National/ Province/ District	0.35	0.64	0.64	0.62	0.64	2.89	
DIP 4.2		5. Secondary Education 1-6-6 Administration Programme	NDoE	National/ Province/ District	0.36	0.94	0.98	1.025	1.1	4.405	
DIP 4.2		6. Secondary Education Science Infrastructure & Equipment Programme	NDoE	National/ Province/ District	1.1	2.0	2.0	2.0	2.0	9.1	
DIP 2.6		7. Secondary Education 1-6-6 WaSH Infrastructure Programme	NDoE	National/ Province/ District	0.55	2.5	2.5	2.5	2.5	10.55	
DIP 2.4		8. Secondary Education 1-6-6 ICT in school programme	NDoE	National/ Province/ District	1.5	1.5	1.5	1.5	1.5	7.5	
DIP 11.1		9. Secondary Education 1-6-6 Accelerated Girls Education Programme	NDoE	National/ Province/ District	0.0	8.0	8.0	8.0	8.0	32.0	
DIP 11.3		10. Secondary Education School Development Sports Programme	NDoE	National/ Province/ District	0.5	1.0	1.0	1.0	1.0	4.5	

DIP 11.4		11. Secondary Education Gender Equity, Disability and Social Inclusion (GEDSI) in school programme	NDoE	National/ Province/ District	1.0	1.0	1.0	1.0	1.0	5.0	
Total					17.00	41.18	41.22	41.25	41.34	181.99	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Number of students enrolled in secondary schools	289,117	335,884	386,800	444,544	503,142	NDoE, High Schools & Secondary Schools
2.	Number of high schools established per LLG	2	2	3	3	4	NDoE, High Schools & Secondary Schools
3.	Number of High/Secondary Schools offering FODE and vocational programme	10	20	35	45	60	NDoE, High Schools & Secondary Schools
4.	Number of High /Secondary Schools with standard science lab and resources	166	200	220	240	250	NDoE, High Schools & Secondary Schools
5.	Number of High/Secondary schools with SLIP	120	130	150	170	190	NDoE, High Schools & Secondary Schools
6.	WaSH in Schools infrastructure development	224	224	224	224	224	NDoE, High Schools & Secondary Schools
7.	Percentage of secondary/high schools using SBC	30%	40%	50%	60%	70%	NDoE, High Schools & Secondary Schools
8.	Number of high/secondary schools with computer laboratory	120	125	130	135	140	NDoE, High Schools & Secondary Schools

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Restructure of High Schools to Secondary Schools	National Education Plan 2020 - 2029
2.	Improve retention rate	National Education Plan 2020-2029
3.	Build and resource specialist building (science lab, ICT etc.) in all schools	National Education Plan 2020-2029
4.	Improve WaSH facilities in schools	National Education Plan 2020-2029
5.	Roll-out of School Learning Improvement Plan (SLIP) Policy	National Education Plan 2020-2029
6.	Distribute curriculum (SBC) material to secondary schools	National Education Plan 2020-2029
7.	Improve school infrastructure	National Education Plan 2020-2029

Table 4: Indicators

Project Link	Outcome Indicators	Source	Baseline (2018)	Annual Targets				
				2023	2024	2025	2026	2027
1-11	1. Gross enrolment ratio in Secondary Education (%)	EMIS	35%	50%	55%	60%	65%	70%
	2. Net enrolment ratio in Secondary Education (%)	EMIS	18%	30%	35%	40%	45%	50%

Project Link	Outcome Indicators	Source	Baseline (2018)	Annual Targets				
				2023	2024	2025	2026	2027
1-11	3. Intra-grade retention rate from junior high school to senior high school Gr 10 to Gr 11	EMIS	59%	60%	62%	64%	66%	68%
	4. Proportion of schools having sufficient and adequate toilets for their pupils	EMIS	93%	95%	96%	97%	97%	98%
	5. Gender Parity Index-Secondary	EMIS	0.84	0.86	0.87	0.88	0.89	0.90
	6. Number of provinces scoring over 40% (minimum benchmark) in grade 10 High School Certificate Examination (HSCE) in all subjects	MSD	17	18	19	20	21	22
	7. Percentage of Secondary Schools with School Learning Improvement Plan	EMIS	70%	80%	82%	83%	84%	85%
	8. Number of secondary schools with science laboratory	EMIS	166	170	175	180	190	200
	9. Pupil Teacher Ratio	EMIS	1:38	1:37	1:35	1:33	1:30	1:28
	10. Percentage of secondary/high schools using SBC	EMIS	0%	40%	50%	70%	90%	100%
	11. Number of secondary schools with computer laboratory	EMIS	166	170	175	180	190	200
Lead Government Agency		National Department of Education						
Executing Agency		National Department of Education/Province/District/ LLGs						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						



3.1.5 Vocational Centres

Goal: Create more opportunity for school leavers and out-of-school children for post-primary academic and skill training programs

The objective of this initiative is to provide a clear and structured education pathway through post-primary and skills training. This initiative focuses on enhancing vocational training infrastructure and resources by upgrading vocational and technical secondary school facilities.

The aim is to enable these institutions to deliver modern training equipped with advanced tools and technology to foster quality education. It also promotes inclusivity and the improvement of training quality by recruiting qualified trainers, incorporating advanced technology in instruction, and increasing the enrolment of girls in trade courses. These efforts ensure that training remains relevant to industry needs. In addition, the initiative seeks to strengthen partnerships and data management for vocational education by developing regional collaborations and enhancing data collection and management systems to enable better coordination and continuous program improvement.

The key result areas expected from this initiative are:

- Improved infrastructure and facilities for vocational education**, including the rehabilitation and upgrade of all vocational centres and technical secondary schools, as well as the provision of advanced tools and equipment for effective learning
- Enhanced teaching and learning capacity**, achieved by recruiting qualified trainers for trade courses, implementing Competency-Based Training and Assessment (CBTA), and utilizing technology-based learning
- Increased access and employment opportunities**, demonstrated through higher enrolment rates of girls in trade courses, the production of a larger pool of skilled graduates, and the expansion of employment prospects across formal, informal, and other economic sectors

To achieve these results, the following strategies will be adopted:

- Upgrade infrastructure and facilities by rehabilitating and modernizing vocational centres and technical secondary schools to ensure a safe and conducive learning environment
- Build capacity and develop skills by recruiting qualified trainers, implementing CBTA for quality assurance in training delivery, and integrating modern technology to deliver contemporary and industry-relevant education
- Strengthen partnerships and improve data management by fostering coordination with regional stakeholders, and enhancing the collection, storage, and use of vocational education data for more informed decision-making and ongoing improvement

The main beneficiaries of this initiative include:

- Department of Education (DoE)
- Department of Higher Education, Research, Science and Technology (DHERST)
- Vocational schools
- Students, teachers, and trainers

Key partners involved in the implementation of this initiative are:

- Department of Education (DoE)
- DHERST
- Provincial and District education authorities
- Vocational schools

- Church agencies
- Private sector partners
- Local communities

The total investment allocated to this vocational education initiative is **K600 million**, directed toward two major intervention programs: the *District VET Roll-out Programme* and *VET Administration*.

This significant financial commitment highlights the dedication of the Government of Papua New Guinea and its partners to strengthening the education and skills development sector. By strategically investing these funds, the initiative aims to close existing gaps in vocational education, increase access to high-quality training, and build a skilled and capable population. These efforts directly contribute to the achievement of the *Medium-Term Development Goals*, the *Sustainable Development Goals*, and the *overall socio-economic well-being of communities* across the nation.



3.VI VOCATIONAL CENTRES LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.4	1. TVET Infrastructure Development Programme	1. District VET roll-out programme	NDoE	Province/District	0.0	148.3	148.3	148.3	148.3	593.2	GoPNG/DPs/PPPs
DIP 4.4		2. VET Administration	NDoE	Province/District	0.0	1.7	1.7	1.7	1.7	6.8	
Total					0.0	150.0	150.0	150.0	150.0	600.0	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Number of districts with more than two VET centres	38	40	43	46	49	NDoE & VET Centres
2.	Proportion of students graduating with NC 1 (%)	75	75	80	85	90	NDoE & VET Centres
3.	Proportion of students graduating with NC 2 (%)	69	69	72	76	79	NDoE & VET Centres

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Districts and provinces to roll out the establishment of VET	National Education Plan 2020-2029,
2.	Districts to have a minimum of 2 VET centres	National Education Plan 2020-2029,
3.	Construct new and improve existing teaching and support infrastructure for VET	National Education Plan 2020-2029,
4.	Ensure the delivery and management of technical training programs are relevant to industry standards	National Education Plan 2020-2029,
5.	Provide up-to-date teaching and learning equipment for all VET centres	National Education Plan 2020-2029,
6.	Encourage engagement of industry with regard to employment opportunities for graduates	National Education Plan 2020-2029,

Table 4: Indicators

Project Link	Outcome Indicators	Source	Baseline (2019)	Annual Targets				
				2023	2024	2025	2026	2027
1-2	1. Percentage of Districts with Vocational Centres (%)	EMIS	84%	85%	89%	92%	96%	99%
	2. Percentage of students who graduated with National Certificate NC 1	VET/MSD REPORT	80%	84%	85%	90%	94%	95%
	3. Percentage of students who graduated with National Certificate NC 2	VET/MSD REPORT	67%	69%	75%	76%	79%	82%
Lead Government Agency		National Department of Education (NDoE)						
Executing Agency		National Department of Education/Province/District/ LLGs						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						



3.1.6 National Schools of Excellence

Goal: To develop the next generation of Papua New Guineans as a highly skilled workforce who will participate not only as end-users but also innovators and creators of scientific and technological inventions and innovations.

The objective of this initiative is to ensure that higher education is accessible and affordable for all 17 and 18-year-old students. It aims to deliver high-quality teaching and learning through appropriately trained and qualified teachers, using the Standard-Based Curriculum (SBC) and STEAM (Science, Technology, Engineering, Arts, and Mathematics) to improve learning outcomes.

The goal is to develop highly skilled students capable of entering specialized job markets both domestically and internationally. This initiative also promotes academic excellence and innovation by encouraging research and exploration within STEAM fields, emphasizing the development of innovative ideas, invention, and the creation of new skills through the use of modern technology. A key focus is to provide a modern and competitive learning environment through the establishment of well-equipped STEM classrooms, research laboratories, and e-libraries to support academic excellence. Additionally, it seeks to empower and upskill teachers and trainers by supporting them to attain advanced qualifications, enabling them to effectively teach and mentor students.

The key result areas expected from this initiative are:

- Increased number of students enrolling in STEAM education across all schools
- Full implementation of the STEAM curriculum
- Rehabilitation and development of infrastructure to support STEAM learning
- Provision of suitable teaching and learning resources
- Staff development, including recruitment and training of qualified teachers and trainers

To achieve these results, the initiative will implement the following strategies:

- Ensure that more than 10% of all Grade 11 selected students are enrolled in STEAM programs in each school
- Support the implementation and coordination of Grade 12 national exams, including STEAM subjects
- Renovate existing facilities and construct new infrastructure, such as STEAM labs, engineering labs, and computer labs to support the curriculum
- Provide STEM kits, including science, engineering, and ICT resources
- Connect schools to fibre optic or VSAT internet to ensure efficient digital access
- Supply textbooks and learning materials relevant to the STEAM curriculum
- Provide teacher training focused on STEM fields
- Upskill teacher qualifications to master's degree level, particularly for STEAM subject areas

The beneficiaries of this initiative include the Department of Education (DoE), the Department of Higher Education, Research, Science and Technology (DHERST), the National School of Excellence (NSOE), students, teachers, and parents.

Key partners supporting this initiative are the DoE, DHERST, provincial and district administrations, church agencies, private sector partners, and local communities.

The total investment for the National School of Excellence (NSOE) is **K90 million**, allocated across two primary intervention programs: Infrastructure Rehabilitation and Construction and STEM Kits/Resources Procurement. This substantial financial commitment underscores the Government of Papua New Guinea's and its partners' dedication to strengthening the education sector. By strategically allocating these funds, the initiative aims to address current gaps in educational provision, expand access to quality higher education, and nurture a more educated and skilled population. These outcomes contribute directly to achieving the *Medium-Term Development Goals*, the *Sustainable Development Goals*, and improving the *overall well-being of communities* across the country.



3.VII NATIONAL SCHOOLS OF EDUCATION LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.2	1. School of Excellence Programme	1. Infrastructure Rehabilitation & Construction	NDoE	Province/District	6.0	16.0	16.0	16.0	16.0	70.0	GoPNG/ DPs/ PPPs
		2. STEM Kits/Resources Procurement	NDoE	Province/District	4.0	4.0	4.0	4.0	4.0	20.0	
		Total			10.0	20.0	20.0	20.0	20.0	90.0	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Number of students enrolled into STEM classes in NSOEs	600	900	1200	1500	1800	NDoE & NSOEs
2.	Number of staff houses built	6	6	6	6	6	NDoE & NSOEs
3.	Number of STEM labs	2	4	6	8	10	NDoE & NSOEs
4.	Number of engineering labs	2	4	6	8	10	NDoE & NSOEs
5.	Number of computer labs	2	2	2	2	2	NDoE & NSOEs
6.	Number of dormitories	2	2	2	2	2	NDoE & NSOEs
7.	Distribution of STEM Kits	✓	✓	-	-	-	NDoE & NSOEs
8.	Percentage of students accessing e-books (%)	96	97	98	99	100	NDoE & NSOEs

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Increase accessibility of STEM education to top 5% of Grade 11 students	National Education Plan 2020-2029, SOE POLICY (2020)
2.	Provide quality and compatible STEM curriculum	National Education Plan 2020-2029, SOE POLICY (2020)
3.	Improve infrastructure that complements STEM education	National Education Plan 2020-2029, SOE POLICY (2020)
4.	Improve teachers qualifications to deliver STEM education	National Education Plan 2020-2029, SOE POLICY (2020)
5.	Provide adequate teaching and learning resources	National Education Plan 2020-2029, SOE POLICY (2020)

Table 4: Indicators

Project Link	Outcome Indicators	Source	Baseline (2021)	Annual Targets				
				2023	2024	2025	2026	2027
1-2	1. Proportion of Grade11 students in NSoE enrolled into STEM curriculum	GESD/NSOE	10%	20%	30%	40%	50%	60%
	2. Percentage of STEM graduates	MSD	0%	20%	30%	40%	50%	60%
	3. Percentage of STEM graduates scoring 85% and above in STEM examinations.	MSD	0%	10%	30%	40%	50%	60%
Lead Government Agency		National Department of Education (NDoE)						
Executing Agency		NHS/NSOE Unit - General Education Services Division (GESD)						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						



3.1.7 Flexible Open and Distance Education

Goal: Establish, provide and facilitate increased education demand and equitable access to all students seeking to gain quality secondary education through efficient FODE Centres as an alternative pathway.

The objective of this initiative is to establish, strengthen, and maintain equitable access to quality secondary education through effective Flexible Open and Distance Education (FODE) pathways. The focus is to equip all FODE Centres with appropriate teaching and learning resources, support the full implementation of FODE programs, improve access and enrolment, and facilitate the establishment of new FODE Centres nationwide.

The key result areas expected from this initiative are:

- Improved and increased printing and distribution of teaching and learning materials
- Increased number of qualified FODE teaching workforce
- Improved infrastructure development across existing FODE Centres
- Establishment of new FODE Centres in underserved areas

To achieve these results, the following strategies will be implemented:

- Improve the facilities and learning environments of all FODE Centres to ensure they are conducive to learning
- Increase the number of FODE Centres to reach more students in remote and rural areas
- Enhance FODE teacher training programs to build a skilled and effective teaching workforce

The primary beneficiaries of this initiative are the Department of Education (particularly through the General Education Services Division), FODE students, teachers, and parents. These stakeholders are central to the successful implementation and sustainability of the FODE program.

Key partners supporting this initiative include the Department of Education, the Teaching Service Commission (TSC), church agencies, provincial and district governments, and the broader community. These partnerships are essential for coordination, delivery, and local ownership of FODE services.

The total investment allocated for FODE is **K68.87 million**, which is distributed across six major intervention programs:

1. FODE Secondary Infrastructure/Office Equipment Programme
2. FODE Secondary Administration Programme
3. Production and Administration of Examinations and Assessments
4. Technology-Enhanced Teaching and Learning—including online course development and delivery
5. Teaching and Learning Resources and Assessments

This significant financial commitment reflects the Government of Papua New Guinea and its partners' strong dedication to improving the education sector. By strategically investing in FODE, the initiative aims to close gaps in educational access, especially for out-of-school youth and remote learners. It also seeks to improve quality through innovative and flexible delivery, contributing to the achievement of the *Medium-Term Development Goals, the Sustainable Development Goals*, and the *long-term well-being of the nation's communities*.

3.VIII FLEXIBLE OPEN DISTANCE EDUCATION LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.2	1. Education Infrastructure Development (SLIP)	1. FODE Secondary Infrastructure/ Office Equipment Programme	NDoE	Province/ District	2.00	2.00	2.00	2.00	2.00	10.00	GoPNG/ DPs/PPPs
DIP 4.2		2. FODE Secondary Administration Programme	NDoE	Province/ District	0.07	0.40	0.40	0.40	0.40	1.67	
DIP 4.2	2. New Primary & Secondary Schools Establishment Programme	3. Production & Administration of Examinations & Assessments	NDoE	Province/ District	0.20	2.00	2.00	2.00	2.00	8.20	
DIP 4.5		4. Alternative Education Pathway (FODE) Teacher Training	NDoE	Province/ District	1.00	5.00	5.00	5.00	5.00	21.00	
DIP 4.5	3. Quality Teacher Training & Development	5. Technology Enhanced, Teaching & Learning - Online Course Development and Delivery	NDoE	Province/ District	0.00	2.00	2.00	2.00	2.00	8.00	
DIP 4.5	4. Education Curriculum Development Programme	6. Teaching and Learning Resources and Assessments	NDoE	Province/ District	0.00	5.00	5.00	5.0	5.00	20.00	
Total					3.27	16.40	16.40	16.40	16.40	68.87	

Table 2: Key Result Areas

No.	Key Performance Indicators	2022	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Number of Infrastructure built in the FODE Provincial and District centres and schools	3 (MLBP, WP, SHP)	2 (ENBP, WNBK)	3 (NIP, JIWAKA, GULF)	2 (NCD, CENTRAL)	2 (HELA, ORO)	2 (NCD & CENTRAL)	NDoE & FODE Provincial & District Centres
2.	Number of staff Houses built in each Province	5	2 (ESP, HQ)	2 (NCD, CENTRAL)	2 (SIMBU, EHP)	2 (MOROBE, WP)	2 (EHP, MBP)	NDoE & FODE Provincial & District Centres
3.	Number of existing FODE Provincial FODE centre buildings renovated	2	2 (Madang, NIP)	2 (ENGA, HELA)	1 (JIWAKA)	1 (AROB)	1 (KLM)	NDoE & FODE Provincial & District Centres
4.	Setup and equip 4 regional print shops with heavy duty printing machines for fast and mass printing	1 (HQ)	2 (HQ & Momase)	2 (NGI & Highlands)	1 (HQ)	1 (Momase)	2 (Highlands & NGI)	NDoE & FODE Provincial & District Centres
5.	ICT hardware devices and software Installation for online course design and delivery	0	1 (HQ NCD Trials)	2 (NCD & Central trials)	Selected larger centers in the country	All remaining centres in the country	All the FODE	NDoE & FODE Provincial & District Centres

No.	Key Performance Indicators	2022	2023	2024	2025	2026	2027	Responsible Agency(ies)
6.	Course design and development completed for online teaching and learning by grades and subjects	0	Grades 9 & 10 all subjects	Grades 9-10 all subjects, Grades 11 - 12 selected subjects	All grades, all subjects	All grades, all subjects	All grades, all subjects	NDoE & FODE Provincial & District Centres

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1	Increase and improve the learning opportunities for FODE students by establishing and upgrading FODE Coordinating Centres ^[1] and Schools (sec, high/ VET) offering FODE programmes	National Education Plan 2020-2029
2	Build new and improve existing FODE Infrastructure - offices, classrooms and staff houses	National Education Plan 2020-2029
3	Increase teacher recruitment, improve teacher capacity and improve staff turnover	National Education Plan 2020-2029
4	Improve capacity of other FODE service delivery mechanisms ^[2]	National Education Plan 2020-2029
5	Design and develop online courses and deliver	National Education Plan 2020-2029
6	Increase and improve development, production and distribution of teaching, learning & assessment materials	National Education Plan 2020-2029
7	Promote Partnership through different stakeholders ^[3] to better deliver services	National Education Plan 2020-2029
8	Improve career guidance education programme	National Education Plan 2020-2029

Table 4: Indicators

Project Link	Outcome Indicator	Source	Baseline 2022	Annual Targets				
				2023	2024	2025	2026	2027
1-6	1. Percentage of students enrolled in FODE	FODE	20%	22%	25%	30%	35%	40%
	2. Percentage of students completing FODE	FODE	46%	42%	43%	52%	63%	75%
	3. Teachers per course	FODE	1:5	1:4	1:3	1:3	1:3	1:3
	4. Number of FODE centres upgraded and /or established in the country	FODE	5	5	5	5	5	5
Lead Government Agency		National Department of Education (NDoE)						
Executing Agency		National Department of Education/Province/District/						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						

^[1] Provincial Centres, Registered Study Centres, District Centres

^[2] Staffing, Inspections, institutional Structure & establishments, teaching & learning resources, Infrastructures,

^[3] DDAs, Provincial Governments, NGOs, Sister Government Institutions, Provincial Education Boards, Private Businesses & Education Institutions

3.1.8 Inclusive Education

Goal: To work collaboratively to promote accessibility, fairness, safe, inclusive and quality education and strive to enrol 45% of Children/Students with Special Needs and Disabilities in the education system by 2027.

The objective of this initiative is to improve and reinforce accessibility, and to provide a safe and friendly learning environment for students with Special Needs and Disabilities through the delivery of quality Inclusive Education within the National Education System. This includes supporting inclusive education infrastructure development programs, the procurement of specialized equipment and resource materials, and assisting in the effective implementation of inclusive education programs across the country.

The key results anticipated from this initiative are:

- Increased enrolment of children and students with Special Needs and Disabilities in mainstream schools
- Improved teaching qualifications for specialized education, along with an increase in the number of specialized teachers
- Establishment of inclusive model schools within the mainstream education system
- Increased availability of appropriate equipment and teaching materials for schools and students with Special Needs and Disabilities

To achieve these outcomes, the initiative will focus on equipping and strengthening the management and operational capacities of Inclusive Education within the national framework. The key strategies include:

- Strengthening inclusive education policies, management, and governance** to ensure systemic support and sustainability
- Improving the capacity, qualifications, and skills of the teaching workforce for specialized education
- Providing appropriate specialized teaching materials tailored to the

needs of learners with disabilities

- Establishing a dedicated special curriculum for the Inclusive Education sector to guide teaching and learning practices

The primary beneficiaries of this program are the Department of Education, Inclusive Education Resource Centres (IERCs), students with Special Needs, their teachers, and parents. These groups play a central role in the development and delivery of inclusive education services.

The key partners supporting this initiative include the Department of Education (School Directorate), the Department of Higher Education, Research, Science and Technology (DHERST), the Teaching Service Commission (TSC), the Office of Libraries and Archives (OLA), the Department of Community Development, Youth and Religion, Provincial Governments, Church Agencies, and the wider community. Their collaboration ensures the effective and holistic implementation of inclusive education programs.

A total investment of **K68.87 million** has been committed to Inclusive Education, spanning six major intervention programs:

1. Establishing one inclusive education model building in mainstream schools
2. Infrastructure development for Callan Studies National Institute
3. Construction and rehabilitation of current and new Inclusive Education Resource Centres (IERCs)
4. Design and implementation of a special curriculum for inclusive education

5. Provision of appropriate and suitable learning resources and equipment
6. Recruitment and resourcing of specialized personnel for inclusive education centres

This significant financial commitment demonstrates the Government of Papua New Guinea and its partners' strong dedication to building an inclusive, equitable, and quality education system. Through strategic investment and partnership, the program aims to close gaps in access and opportunity, and to support the realization of the *Medium-Term Development Goals*, the *Sustainable Development Goals*, and the overall well-being and empowerment of all learners across the country.



3.IX INCLUSIVE EDUCATION LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Pro-grams/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.2	1. New Primary & Secondary Schools Establish-ment Programme 2. Education Infrastructure Development (SLIP) 3. Quality Teacher Train-ing & Development	1. Establish one Inclusive Educa-tion model buildings in main-stream schools in 22 provinces	NDoE	Province/ District	0.10	3.90	3.90	3.90	3.90	15.70	GoPNG/ DPs/ PPPs
DIP 4.2		2. Relocation infrastructure development for Callan Studies National Institute	NDoE	Province/ District	0.80	3.12	3.12	3.12	3.12	13.28	GoPNG/ DPs/ PPPs
DIP 4.2		3. Establish new IERCs or rehabili-tate existing IERCs	NDoE	Province/ District	0.20	0.78	0.78	0.78	0.78	3.32	GoPNG/ DPs/ PPPs
DIP 4.2		4. Education Policies (Audit Programs, School Goverance, Education Leadership, Labor & Mobilization)	NDoE	Province/ District	0.08	0.20	0.20	0.20	0.20	0.88	GoPNG/ DPs/ PPPs
DIP 4.5		5. Designed Special Curriculum for Inclusive education	NDoE	Province/ District	0.00	1.30	1.30	1.30	1.30	5.20	GoPNG/ DPs/ PPPs
DIP 4.5		6. Resource Inclusive Education Centres with suitable & appropri-ate resources and personnels	NDoE	Province/ District	0.00	0.50	0.50	0.50	0.50	2.00	GoPNG/ DPs/ PPPs
Total					1.18	9.80	9.80	9.80	9.80	40.38	

Table 2: Key Result Areas

No.	Key Performance Indicator	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Inclusive Model Schools and ECE Centres are established within existing mainstream schools and Institutions in 22 provinces	5 Model Schools	3 – ECE 3 – Primary 3 – Sec Total 9	4 – ECE 4 – Primary 2 – VET 3 – Sec Total 12	4 – ECE 4 – Primary 4 – VET 4 – Sec Total 16	5 – ECE 5 – Primary 5 – VET 5 – Sec Total 20	NDoE & IERCs
2.	Infrastructure Development for Callan Studies National Institute (Fatima – Banz, or Port Moresby)	Physical survey of location Architectural plan	Administration / Lecture Block Multimedia/ theater	Dormitory/ Dining Hall/Lecturers' Houses	Library / Workshops Furniture and resource materials	Computers and Electronic equipment	NDoE & IERCs

No.	Key Performance Indicator	2023	2024	2025	2026	2027	Responsible Agency(ies)
3.	Rehabilitate and establish new IERCs	Gulf/ St Johns	Oro/ IERC Manus	JIWAKA CSHC /Madang	Central*2 IERC –Kimbe	Hela/Simbu	NDoE & IERCs
4.	Special Curriculum for Inclusive education designed	Review Applied Diploma and link to Bachelor's	Develop Bachelor's course	Develop Bachelor's course	Printing of the course books	Implement the course and evaluate the course.	NDoE & IERCs
5.	Resource Inclusive Education Centres with suitable and appropriate resources and staff	Sign Language/ Braille /Special Assistive Devices	Sign Language/ Braille /Special Assistive Devices	Sign Language/ Braille /Special Assistive Devices	Sign Language/ Braille /Special Assistive Devices	Language/ Braille /Special Assistive Devices	NDoE & IERCs

Table 3: Strategies

No.	Sector Strategies	Sector Plan or Policy Reference
1.	Establish inclusive model schools in mainstream schools and ECE in IERCs	National Education Plan 2020 – 2029
2.	Construct infrastructure for CSNI (relocation) Fatima, Banz. Port Moresby	National Education Plan 2020 – 2029
3.	Construct and Rehabilitate current/New IERCs infrastructure	National Education Plan 2020 – 2029
4.	Develop Course materials for Bachelors and Master's in Inclusive/Special	National Education Plan 2020 – 2029
5.	Special Curriculum for inclusive education designed	National Education Plan 2020 – 2029
6.	Resource Inclusive Education Centres with suitable and appropriate resources and staff	National Education Plan 2020 – 2029

Table 4: Indicators

Project Link	Outcome Indicators	Source	Baseline (2022)	Annual Targets				
				2023	2024	2025	2026	2027
1-6	1. Proportion of Children with Special Needs enrolled in School System (%)	NEP: 2020 -2029	5% (16456)	7%	12%	20%	35%	45%
Lead Government Agency(ies)			All Relevant Agencies, Ministry of Education, Ministry of Community Development Youth and Religion.					
Executing Agencies			National Department of Education					
Sector Coordination Mechanism			Education Sector Development Plan Steering Committee					

3.1.9 Teaching Service

Goal: To have a highly skilled, specialised and committed teaching service workforce delivering quality teaching and learning for all students at the early childhood education stage through to schools of excellence and inclusive education.

The initiative aims to improve and enhance the capacity, qualifications, and skill sets of the teaching service workforce to deliver quality teaching and learning for all students in the National Education System.

Key areas of focus include support for teacher development programs, improving teacher-student ratios, increasing the number of newly graduated qualified teachers across all sectors, and strengthening the Teaching Service Commission's (TSC) infrastructure and digital systems, including housing and ICT-based data management.

Expected outcomes include an increase in the number of qualified and skilled teachers, improved teacher-to-student ratios, appointment of newly graduated teachers into positions across the system, establishment of ICT infrastructure and electronic data systems through the Teacher Information and Management System (TIMS), and the rollout of a national TSC Housing Scheme to improve teacher welfare and retention.

To achieve these outcomes, strategic actions include the development and implementation of a Teacher Qualification Development Policy, enhancing teacher qualifications to effectively deliver STEAM subjects in the National School of Excellence (NSoE), increasing the number of certified TVET trainers, supporting TIMS implementation through ICT infrastructure and electronic databases, improving workforce capacity through targeted training, and supporting the TSC Housing Scheme via Public-Private Partnerships (PPP).

The primary beneficiaries of this initiative include the Teaching Service Commission, the Department of Education, provincial and district governments, teachers, and students. Key partners include the

Teaching Service Commission (TSC), Department of Education (DoE), Department of Higher Education, Research, Science and Technology (DHERST), provincial and district administrations, church agencies, and local communities.

A total of **K169.5 million** has been allocated to five major intervention programs: Teacher Training and In-Service Programme, TVET Teacher Training and In-Service Programme, Institutional Housing Development Program for teachers at national, provincial, and district levels, establishment of the Teacher Information and Management System (TIMS), and the PNG Teacher Excellence and Reward Program which includes awareness, policy alignment, rewards, and incentives.

This substantial financial commitment reflects the Government of Papua New Guinea and its partners' dedication to strengthening the education sector. Through strategic investments in teacher professional development and support, this initiative aims to close quality gaps, improve student outcomes, and contribute significantly to achieving the Medium-Term Development Goals (MTDPs), Sustainable Development Goals (SDGs), and the broader well-being of communities across the country.

3.X TEACHING SERVICE LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Project	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.1 DIP 4.2 DIP 4.5	1. Early Childhood Development Programme	1. Teacher Training and in-service programme	Teacher Upskilling and Upgrading	TSC	National/Province/District	0.0	10.0	20.0	20.0	20.0	70.0	GoPNG/SIPs/DPs
DIP 4.1 DIP 4.5		2. TVET Teacher Training and In-Service Programme	TVET Teacher In-Service Programme	TSC	National/Province/District	0.0	10.0	10.0	10.0	10.0	40.0	GoPNG
DIP 2.7	2. New Primary & Secondary School Establishment	3. Institutional Housing Development Program for Teaching Service Employees (National, Provincial and Districts Level)	TSC Staff Housing, Transport, Office Programme	TSC	National/Province/District	0.0	8.0	8.0	8.0	8.0	32.0	GoPNG/PPP
	3. Schools of Excellence Programme											
DIP 8.1	4. Quality Teacher Training & Development	4. TSC establish Data Management System	TSC ICT Infrastructure Project	TSC	National/Province/District	0.0	5.0	5.0	5.0	5.0	20.0	GoPNG/DPs
DIP 4.2	5. Education Curriculum	5. PNG Teacher Excellence and Reward Program Awareness, Policy and Planning alignment Rewards and Incentives	Teacher Awards and Rewards Programme	TSC	National/Province/District	1.5	1.5	1.5	1.5	1.5	7.5	GoPNG/DPs
Total						1.5	34.5	44.5	44.5	44.5	169.5	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Number of Teacher College graduates registered by TSC and employed in the education sector within 1 year of graduating	200	500	1000	1500	2500	TSC
2.	Number of STEM Teachers registered by TSC within 1 year of graduating	10	20	30	40	50	TSC
3.	Number of certified TVET Trainers (NQF)	NA	50	150	250	350	TSC

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
4.	Number of houses developed for Teaching Service employees through Public Service Institutional Housing programs	0	3	6	12	15	TSC
5.	Number of Institutional Houses developed for Teaching Service employees in the provinces	0	2	4	8	12	TSC
6.	Number of houses developed for Teaching Service employees in the district headquarters	0	2	3	4	6	TSC
7.	Land (hectares) made available for houses of Teaching Service employees	0	1	2	3	4	TSC
8.	TSC established Data Management System	NA	1	2	3	4	TSC

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Develop a Teacher Qualification Upgrading Policy for all levels of education.	MTDP IV, NEP 2020-2029
2.	Improve teachers' qualification to deliver STEM.	MTDP IV, NEP 2020-2029
3.	Improve teachers' qualifications to deliver compulsory second language (foreign)	MTDP IV, NEP 2020-2029
4.	Enhance collaboration with NDoE, DHERST and other relevant agencies to create opportunities for graduates	MTDP IV, NEP 2020-2029, National Higher & Technical Education Plan 2021-2030, DHERS Strategic Priorities-Teacher Colleges 2020.
5.	Enhance capacity development for teachers, trainers and support staff from ECE, lower secondary schools, upper secondary schools, SoE, FODE, Inclusive Education	MTDP IV, NEP 2020-2029
6.	Mobilize customary land for public housing development programs at the National and Subnational levels including the districts	MTDP IV, NEP 2020-2029
7.	Promote PPP arrangements in delivering public housing	PPP Act, MTDP IV
8.	Standardized home ownership schemes, including institutional houses	National Housing Corporation Act 1994, MTDP IV
9.	Provinces and districts to start planning to build institutional houses in the provinces and districts using local labour and material	National Housing Corporation Act 1994, MTDP IV
10.	Connect TSC to Government Private Network (GPN)	Digital Government Act 2022, MTDP IV
11.	Review and develop policy and plans such as Corporate Plans, Retrenchment Policies and Others	MTDP IV

Table 4: Indicators

Project Link	Outcome Indicator	Source	Baseline (2020)	Annual Targets				
				2023	2024	2025	2026	2027
1-5	1. Proportion of teacher graduates admitted into teaching positions	TSC Annual Report /MPR	84	86	88	90	92	94
1-5	2. Proportions of ECE teacher graduates admitted into teaching force	TSC Annual Report /MPR	10 (out/30,000)	20	25	28	30	40
1-5	3. Proportions of primary teacher graduates admitted into teaching force	TSC Annual Report /MPR	5 (out/31,688)	10	15	20	25	30
1-5	4. Proportions of high/secondary teacher graduates admitted into teaching force	TSC Annual Report /MPR	5 (out/5,665)	10	15	20	25	30
1-5	5. Proportions of Vocational teacher graduates admitted into teaching force	TSC Annual Report /MPR	3	5	7	9	11	13
1-5	6. Proportions of Inclusive Education teacher graduates admitted into teaching force	TSC Annual Report /MPR	2	4	6	8	10	12
1-5	7. Proportions of FODE teacher graduates admitted into teaching force	TSC Annual Report /MPR	5	6	7	8	9	10
1-5	8. Proportions of NSOE teacher graduates admitted into teaching force	TSC Annual Report /MPR	3	6	9	12	15	18
1-5	9. Proportion of Teaching Service Commission officers and teachers living in Institutional Housing (%) disaggregated by employee qualifications (teachers and public servants.	NHC Report	3	5	8	12	16	22
1-5	10. Proportion of Teaching Service employees having access to internet	NICTA	36	40	45	50	60	70
Lead Government Agency		Teaching Service Commission						
Executing Agency		NDoE,DHERST,Teacher Colleges, Universities , Provincial Education Boards						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						

3.1.10 National Library and Archives

Goal: To provide updated, quality information and records through efficient and effective service delivery, sound policies and systems.

This initiative aims to strengthen library and archival services and enhance access to information and knowledge across Papua New Guinea. The focus is on establishing public libraries, archives, and e-libraries nationwide to promote literacy, research, and digital access. Key activities include developing library infrastructure, procuring school library books, and providing specialized training for librarians and archivists to improve service delivery and preserve national knowledge.

The expected outcomes include increased access to school and public libraries and digital archives through the establishment of new facilities in schools and provinces each year, expansion of e-library services to improve digital learning resources, and the capacity building of librarians and archivists through targeted training programs that strengthen library and archive management.

Strategic efforts will center on establishing public libraries, archives, and school library infrastructure in all provinces to expand access to information. E-libraries and e-archives will be developed to support digitization and automation of records. Additionally, school library books will be procured to promote literacy, and librarians, archivists, and specialized officers will be trained to enhance service delivery and knowledge management.

The key beneficiaries include the Office of Libraries and Archives (OLA), the Department of Education (DoE), the Teaching Service Commission (TSC), provincial governments, schools, students, and teachers. Partners in the implementation of this initiative include OLA, DoE, TSC, DHERST, provincial and district administrations, church agencies, and private sector partners.

A total investment of **K51.39 million** has been allocated to four major intervention programs: training and upskilling of national, provincial, and school librarians and archivists; procurement and distribution of school library books; development of school e-libraries and e-archives; and provincial library and archives infrastructure development.

This significant financial commitment demonstrates the Government of Papua New Guinea and its partners' dedication to enhancing the education sector. Through the strategic investment in library and archival services, this initiative seeks to address gaps in information access, support lifelong learning, and contribute meaningfully to the *Medium-Term Development Goals, Sustainable Development Goals*, and the overall development of a literate and informed society.



3.XI NATIONAL LIBRARY AND ARCHIVES LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 K mil	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.2	1. Early Childhood Development Programme New Primary & Secondary School Establishment	1. Training and upskilling of National, Provincial and School teacher librarians National and Provincial Archivists	OLA	Province/ District	0.12	1.45	1.41	1.40	1.30	5.68	GoPNG/ DPs/ PPPs
DIP 4.2		2. Procurement and distribution of schools library books	OLA	Province/ District	0.12	1.10	1.10	1.10	1.10	4.52	GoPNG/ DPs/ PPPs
DIP 4.2	2. Education Infrastructure Development	3. School e-Library and e-Archive Development Program	OLA	Province/ District	0.03	0.35	0.31	0.30	0.20	1.19	GoPNG/ DPs/ PPPs
DIP 2.8	3. Provincial Towns Development Programme	4. Provincial Libraries and Archives Infrastructure Development Program	OLA	Province/ District	8.00	8.00	8.00	8.00	8.00	40.00	GoPNG/ DPs/ PPPs
Total					8.27	10.90	10.82	10.80	10.60	51.39	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Number of Public Libraries and Archives established.	2x Libraries/ Archives Infrastructures (Madang, WNB) 36%	2x Libraries/ Archives Infrastructures (Oro, Wewak) 45%	2x Libraries/ Archive infrastructures (Vanimo, WHP) 55%	2x Libraries/ Archives Infrastructures (Manus, Hela) 64%	2x Archives / Libraries (Sandaun, AROB) 72%	OLA / Provincial Divisions of Education
2.	Number of e-libraries established	9	18	27	36	45	OLA / Provincial Divisions of Education
3.	Digital Archive systems established	1 x HQ	1 x HQ	1 x HQ	1 x HQ	1 x HQ	OLA / Provincial Divisions of Education
4.	Number of school library books procured	5 provinces 3,175 schools	5 provinces 3,175 schools	5 provinces 3,175 schools	5 provinces 3,175 schools	2 provinces 1,270 schools	OLA / Provincial Divisions of Education
5.	Number of National, Provincial, Districts and School Librarian officers are trained and upskilled	10 provincial 30 district and 3,175 school teacher librarians and HQ 30 staff	10 provincial 30 district and 3,175 school teacher librarians	10 provincial 30 district and 3,175 school teacher librarians	10 provincial 30 district and 3,175 school teacher librarians	4 provincial librarians 6 district librarians	OLA / Provincial Divisions of Education

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
6.	Number of School Library Infrastructure Established in High/Secondary and Primary School.	10 schools in one region, 2 provinces	20 schools in one region, 5 provinces	20 schools in one region, 5 provinces	25 schools in one region, 5 provinces	25 schools in one region, 5 provinces	OLA / Provincial Divisions of Education
7.	Number National and Provincial Archivist Trained and upskilled.	10 provincial and 40 National Archivists	10 provincial archivists	10 provincial & 40 National Archivists	10 provincial Archivist	4 provincial & 10 National Archivists	OLA / Provincial Divisions of Education

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Establishment of Public Libraries and Archives in all the Provinces (Provincial HQ)	National Library Archives and Records Services 10 Year Strategic Plan 2016 - 2025, MA 4.2, NLS 5.1
2.	Establishment of e-Libraries in the Schools and Public Libraries in the country	National Library Archives and Records Services 10 Year Strategic Plan 2016 - 2025, MA 8.1, NLS 5.5
3.	Establishment of e-Archives (Automation and digitization of Archive system)	National Library Archives and Records Services 10 Year Strategic Plan 2016 - 2025, MA 8.3
4.	Procurement of School Library books for schools in the country.	National Library Archives and Records Services 10 Year Strategic Plan 2016 - 2025, MA 3.0
5.	Establishment of School Library Infrastructure development	National Library Archives and Records Services 10 Year Strategic Plan 2016 - 2025, MA 4.5, NLS 5.6
6.	Training of Librarian and Archivist staff	National Library Archives and Records Services 10 Year Strategic Plan 2016 - 2025, NLS 7.2
7.	Training of Specialist Archivist Officers	National Library Archives and Records Services 10 Year Strategic Plan 2016 - 2025, NLS 7.2

Table 4: Indicators

Project Link	Outcome Indicators	Source	Baseline (2022)	Annual Targets				
				2023	2024	2025	2026	2027
1-4	1. 45% of Public Libraries and Archives established	DoE EMIS - 2017 MTDP IV 2023 -2027	23% 7 provinces (NCD, Chimbu, EHP, Milne Bay, ENB, Morobe)	2 9.9%	2 18%	2 27%	2 36%	2 45%
1-4	2. 1% of 13,970 school Library Infrastructure Established	DoE EMIS 2017 MTDP IV 2023 -2027	1,215 primary schools (8.7%) with Library Infrastructure Established	0.072% (10) Primary Schools	0.14% (20) Primary Schools	0.14% (20) Primary Schools	0.18% (25) Primary Schools	0.18% (25) Primary Schools
1-4	3. 20% of e-Libraries and 0.45 % e-Archives established	DoE EMIS - 2017	185 (63%) high/secondary schools 17 (12%) Vocational schools e-Archives (0%)	9 4%	9 9%	9 13%	9 18%	9 22%

Project Link	Outcome Indicators	Source	Baseline (2022)	Annual Targets				
				2023	2024	2025	2026	2027
1-4	4. 100% of schools supplied with Library books (by provinces)	DoE EMIS - 2017	492 (6%) pre- schools 1215 (63%) primary schools	5 provinces 3,175 schools 23%	5 provinces 3,175 schools 45%	5 provinces 3,175 Schools 68%	5 provinces 3,175 Schools 91%	2 provinces 1270 Schools 100%
1-4	5. 50% of National & Provincial School Teacher Librarian & Archivist trained and upskilled	TSC Teacher data/ DoE EMIS 2017	50% of teacher Librarian & archivist trained	5 provinces 10%	5 Provinces 10%	5 provinces 10 %	5 Provinces 10%	5 Provinces 10%
Lead Government Agency(ies)		Office of Library & Archives (OLA)						
Executing Agencies		Office of National Library and Archives / Provincial Administrations & Provincial Divisions of Education (PDOE)						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						



3.1.11 Literacy Education Service

Goal: To improve human development indicators through a more literate PNG adult and out-of-school population.

This initiative is focused on enhancing literacy education services across Papua New Guinea to improve the national literacy rate. It aims to expand access to literacy programs while developing standardized curriculum materials to ensure effective and consistent learning experiences. Central to this effort is the capacity building of all literacy stakeholders—including program providers, trainers, teachers, and coordinators—alongside improved coordination and management of literacy education services.

Key outcomes expected from this initiative include an increase in the certification of adult literacy learners and the development and distribution of standardized curriculum toolkits. Improved coordination of literacy teacher training, networking, and monitoring programs is anticipated, as well as strengthened regulation and registration of adult literacy and out-of-school children (OOSC) programs. A rise in the number of adult literacy schools established nationwide will further contribute to broadening educational access.

Strategically, the initiative will expand literacy education programs to reach more adult learners and out-of-school populations. Standardized literacy education toolkits will be introduced to enhance learning quality, and ongoing training will be provided for program providers, trainers, and teachers to improve delivery. Additionally, monitoring, evaluation, and governance mechanisms will be strengthened to ensure effective implementation and sustainability of the programs.

The primary beneficiaries include the Department of Education, adult literacy schools, out-of-school students, teachers, and parents. Implementation will be supported through partnerships with the Department of Education, Teaching Service Commission, Office of Libraries and Archives, central government agencies, provincial and

district administrations, church agencies, and local communities.

A total investment of **K6.67 million** has been allocated to six major intervention programs: the Out of School Children Initiative (OOSCI) Development and Administration Programs, production and distribution of literacy curriculum materials, literacy program administration, literacy curriculum teacher training (Alternate Basic Education Curriculum), and curriculum development for Alternate Basic Education.

This substantial investment in literacy education services reflects the Government of Papua New Guinea and its partners' commitment to improving educational access and outcomes. By strategically targeting literacy gaps and empowering communities, the initiative aims to build a more literate and informed society, contributing to the achievement of the *Medium-Term Development Goals, the Sustainable Development Goals*, and the broader well-being of the nation.



3.XII LITERACY EDUCATION SERVICE LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.2	1. New Primary & Secondary School Establishment 2. Education Infrastructure Development 3. Teacher Training & In-Service Programme 4. Curriculum Development	1. Out of School Children Initiative (OOSCI) Development Program	NLAS	Province/ District	0.03	0.50	0.50	0.50	0.50	2.03	GoPNG/DPs/ PPPs
DIP 4.2		2. Out of School Children Initiative (OOSCI) Administration	NLAS	Province/ District	0.05	0.10	0.10	0.10	0.10	0.45	GoPNG/DPs/ PPPs
DIP 4.2		3. Literacy Curriculum Materials Produce & Distributed	NLAS	Province/ District	0.04	0.10	0.10	0.10	0.10	0.44	GoPNG/DPs/ PPPs
DIP 4.2		4. Literacy Program Administration	NLAS	Province/ District	0.05	0.50	0.50	0.50	0.50	2.05	GoPNG/DPs/ PPPs
DIP 4.5		5. Literacy Curriculum Teacher Training (Alternate Basic Education Curr.)	NLAS	Province/ District	0.20	0.20	0.15	0.15	0.15	0.85	GoPNG/DPs/ PPPs
DIP 4.5		6. Literacy Curriculum Development Program (Alternate Basic Education Curr.)	NLAS	Province/ District	0.20	0.20	0.15	0.15	0.15	0.85	GoPNG/DPs/ PPPs
Total					0.57	1.60	1.50	1.50	1.50	6.67	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Number of Adult literacy participants certified	500	1000	1500	2000	2500	NLAS
2.	Completion of Alternate Curriculum Toolkit developed	✓	✓	✓	✓	✓	NLAS
3.	Literacy teachers training conducted per region	✓	✓	✓	✓	✓	NLAS
4.	Number of Adult Literacy programmes registered	15	20	25	30	35	NLAS
5.	Number of OOSC programmes registered	20	40	60	80	100	NLAS

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
6.	OOSC Community awareness conducted for Back-Into-School Pathway	✓	✓	✓	✓	✓	NLAS
7.	Literacy teacher support program for skills development	Upskill 5x literacy teacher qualification	Upskill 10x literacy teacher qualification	Upskill 15x literacy teacher qualification	Upskill 20x literacy teacher qualification	Upskill 25x literacy teacher qualification	NLAS
8.	Data Collection per province Monitoring, Evaluation, and Registration of Literacy Education program OOSC survey carried out	WSP, SHP, WP, Gulf	ESP, Simbu, Enga, ARoB, NCD	EHP, Jiwaka, Manus, ENB, WNB	WHP, Madang, Central, Oro	MBP, Hela, NIP, Morobe	NLAS
9.	Establish new schools / equip existing schools for rural, remote and extremely remote communities for OOSC in partnership with Development Partners (DPs)	✓	✓	✓	✓	✓	NLAS
10.	Annual State and Non-State Actor Literacy Networking Conference	✓	✓	✓	✓	✓	NLAS
11.	Household literacy survey conducted in provinces with partners (National Statistics Office & DPs)	4	8	12	16	22	NLAS
12.	Developed OOSC Policy and Plan for implementation	-	✓	✓	✓	✓	NLAS

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Improve and increase National Literacy rate	NEP 2020-2029/NLP 2000/EFA Goals 2015/NPP2000-2016/NPP 2015-2024/OOSCI Report 2018/ Belém Framework for Action 2009/Dakar framework of Action,2000/LIFE Situational Analysis Report 2008/ PNG Vision 2050
2.	Develop standard curriculum material for literacy education services	NEP 2020-2029/NLP 2000/EFA Goals 2015/NPP2000-2016/NPP 2015-2024/OOSCI Report 2018/ Belém Framework for Action 2009/Dakar framework of Action,2000/LIFE Situational Analysis Report 2008/ PNG Vision 2050
3.	Capacity building for Literacy Stakeholders (Literacy program providers, Literacy trainers and teachers, coordinators)	NEP 2020-2029/NLP 2000/EFA Goals 2015/NPP2000-2016/NPP 2015-2024/OOSCI Report 2018/ Belém Framework for Action 2009/Dakar framework of Action,2000/LIFE Situational Analysis Report 2008/ PNG Vision 2050

No.	Sector Strategy	Sector Plan or Policy Reference
4.	Improve coordination, and management of Literacy education services	NEP 2020-2029/NLP 2000/EFA Goals 2015/NPP2000-2016/NPP 2015-2024/OOSCI Report 2018/ Belém Framework for Action 2009/Dakar framework of Action,2000/LIFE Situational Analysis Report 2008/ PNG Vision 2050

Table 4: Indicators

Project Link	Outcome Indicator	Source	Baseline (2018)	Annual Targets				
				2023	2024	2025	2026	2027
1-6	1. Proportion of Out-Of-School Children (%)	NEP 2020-2029, OOSCI Report 2018/EFA Goals 2015/EMIS	21	21	20	20	19	19
1-6	2. National Literacy Rate (%)	NSO 2009-2010 Census/ NEP 2020 – 2029 /NLP 2000	67.6	67.6	67.6	67.7	67.8	67.9
Lead Government Agency		National Department of Education (NDoE)						
Executing Agency		National Literacy Secretariat (NLAS)						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						



3.1.11.1 Governance of Literacy Education Service

3.XIII GOVERNANCE OF LITERACY EDUCATION SERVICE LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.2	1. New Primary & Secondary School Establishment	1. Out of School Children Initiative (OOSCI) Operational programme	NLAS	Province/District	0.05	0.30	0.30	0.30	0.30	1.25	GoPNG/DPs/ PPPs
DIP 4.2	2. Education Infrastructure Development	2. Literacy Operational Programme (SLIP)	NLAS	Province/District	0.05	0.30	0.30	0.30	0.30	1.25	GoPNG/DPs/ PPPs
Total					0.10	0.60	0.60	0.60	0.60	2.50	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Development of Language and Literacy Act	✓	✓	✓	✓	✓	NLAS
2.	Language mapping & autography development conducted with partners	✓	✓	✓	✓	✓	NLAS
3.	Restructure of NLAS current structure	Increase National Staff to x30					NLAS
4.	Re-establish Provincial Literacy Coordinators (PLC)	Momase WSP, ESP Madang, Morobe,	Highlands Hela, SHP, Simbu, EHP, WHP, Enga, Jiwaka	Islands NIP, Manus, ENB, WNB	Southern WP, Gulf, Central Oro, MBP, NCD	ARoB	NLAS
5.	NLAS Utilities		2x Operation Vehicles	Office allocation			NLAS
6.	Conduct NLAC meetings annually	2x Meetings-NCD/ EHP	2x Meetings Morobe/WNB	2x Meetings SHP/NIP	2x Meetings Oro/Madang	2x Meetings Sandaun/Gulf	NLAS
7.	1x Construction of Literacy Centres per province and region	Momase WSP, ESP Madang, Morobe,	Highlands Hela, SHP, Simbu, EHP, WHP, Enga, Jiwaka	Islands NIP, Manus, ENB, WNB	Southern WP, Gulf, Central Oro, MBP, NCD	ARoB	NLAS

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Develop Language and Literacy Legislation framework	NEP 2020-2029/NLP 2000/EFA Goals 2015/NPP2000-2016/NPP 2015-2024/OOSCI Report 2018/ Belém Framework for Action 2009/Dakar Framework of Action,2000/LIFE Situational Analysis Report 2008/ PNG Vision 2050
2.	Improve and Increase National literacy rate	NEP 2020-2029/NLP 2000/EFA Goals 2015/NPP2000-2016/NPP 2015-2024/OOSCI Report 2018/ Belém Framework for Action 2009/Dakar Framework of Action,2000/LIFE Situational Analysis Report 2008/ PNG Vision 2050
3.	Develop standard curriculum material for alternate education services	NEP 2020-2029/NLP 2000/EFA Goals 2015/NPP2000-2016/NPP 2015-2024/OOSCI Report 2018/ Belém Framework for Action 2009/Dakar Framework of Action,2000/LIFE Situational Analysis Report 2008/ PNG Vision 2050
4.	Capacity building for Literacy Stakeholders	NEP 2020-2029/NLP 2000/EFA Goals 2015/NPP2000-2016/NPP 2015-2024/OOSCI Report 2018/ Belém Framework for Action 2009/Dakar Framework of Action,2000/LIFE Situational Analysis Report 2008/ PNG Vision 2050
5.	Improve coordination, and management of Literacy development	NEP 2020-2029/NLP 2000/EFA Goals 2015/NPP2000-2016/NPP 2015-2024/OOSCI Report 2018/ Belém Framework for Action 2009/Dakar Framework of Action,2000/LIFE Situational Analysis Report 2008/ PNG Vision 2050
6.	Improve access, retention, and management of Out-Of-School Children (OOSC)	NEP 2020-2029/NLP 2000/EFA Goals 2015/NPP2000-2016/NPP 2015-2024/OOSCI Report 2018/ Belém Framework for Action 2009/Dakar Framework of Action,2000/LIFE Situational Analysis Report 2008/ PNG Vision 2050
7.	Improve coordination with development partners, and non-state actors to mobilise resources to establish new schools / equip existing schools for rural, remote and extremely remote communities for OOSC	NEP 2020-2029/NLP 2000/EFA Goals 2015/NPP2000-2016/NPP 2015-2024/OOSCI Report 2018/ Belém Framework for Action 2009/Dakar Framework of Action,2000/LIFE Situational Analysis Report 2008/ PNG Vision 2050
8.	Adult literacy centres to be constructed per province and region	NEP 2020-2029/NLP 2000/EFA Goals 2015/NPP2000-2016/NPP 2015-2024/OOSCI Report 2018/ Belém Framework for Action 2009/Dakar Framework of Action,2000/LIFE Situational Analysis Report 2008/ PNG Vision 2050

Table 4: Indicators

Project Link	Outcome Indicator	Source	Baseline (2018/2011)	Annual Targets				
				2023	2024	2025	2026	2027
1-2	1. Proportion of Out-Of-School Children (%)	NEP 2020-2029, OOSCI Report 2018/EFA Goals 2015	21	21	20	20	19	19
1-2	2. National Literacy Rate (%)	NSO 2009-2010 Census/ NEP 2020 – 2029 /NLP 2000/	67.6	67.6	67.6	67.7	67.8	67.9
Lead Government Agency			National Department of Education (NDoE)					
Executing Agency			National Literacy Secretariat (NLAS)					
Sector Coordination Mechanism			Education Sector Development Plan Steering Committee					

3.2 HIGHER AND TECHNICAL EDUCATION

3.2.1 Higher and Technical Education Governance

Goal: To support effective and efficient sector coordination and governance that contributes to the provision of a robust higher and technical education system.

The *Higher Education (General Provisions) Act*, as amended 2020, and the *Higher and Technical Education Reform Act 2020* establishes the legal framework for a unified and more coherent higher and technical education system in PNG. These Acts empowers DHERST and the National Higher and Technical Board (NHTEB) to provide regulatory oversight of all public and private Higher Education Institutions (HEIs) operating in PNG.

Improved Governance of the Higher and Technical Education sector is a hallmark of the ongoing Higher Education Reform. This includes, a unified higher education sector, digitalized higher education products and services, semi-autonomous HEIs (colleges) and efficient, equitable and inclusive service delivery and improved quality of higher education.

The three main investment program and projects are estimated to cost **K121.5 million** over the 5 years period. This significant investment strategically targets implementation of the new governance framework for Higher Education Institutions, enforcing compliance with the National Standards for Institution Registration and Programme Accreditation and improving efficiencies in the delivery of higher education services and products to the people and industries in PNG through digitalisation.

- The *Higher and Technical Education Reform Program* will resource the roll-out of the new governance framework for HEIs, improve monitoring and enhance sector governance.
- The *Tertiary Institution Accreditation and Quality Assurance Program* will support institutional audits and programme reviews to ensure

HEIs comply with National Standards for Institution Registration and Programme Accreditation. Ensuring learning quality through regulation and compliance is a significant task and DHERST requires adequate resourcing to conduct institutional audits and programme reviews.

- The *National Higher and Technical Education Management Information System (NHTEMIS) project* will have a transformational impact on all the provision of higher education in PNG. The NHTEMIS will create e-learning platforms for HEIs and the planned Open University to offer higher education in both urban and rural areas. It will provide quality online digital education and standardised management systems for improved governance, financial management and administration of HEIs.

The investment programs and strategies in the logframe below are aimed at addressing key indicators for access and quality higher and post-secondary technical education in PNG.

3.XIV HIGHER AND TECHNICAL EDUCATION GOVERNANCE LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.3 DIP 4.4 DIP 4.5	1. Infrastructure Development Programmes	1. Higher & Technical Education Reform	DHERST	National/Province	0.0	3.0	2.5	2.0	1.0	8.5	GoPNG/DPs
DIP 4.5	2. Curriculum Development Programmes	2. ² Tertiary Institutions' Accreditation and Quality Assurance	DHERST	National/Province	3.0	10.0	10.0	10.0	10.0	43.0	GoPNG/DPs, JICA ³
DIP 4.3 DIP 4.4 DIP 4.5	3. Tertiary Education Scholarship and HELP Programme	3. Higher & Technical Education Management Information System (HTEMIS)	DHERST	National/Province	0.0	20.0	20.0	15.0	15.0	70.0	GoPNG/DPs
Total					3.0	33.0	32.5	27.0	26.0	121.5	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency (ies)
1.	Number of public ⁴ HEIs that have established Governing Councils and management framework	34	40	43	46	49	DHERST & HEIs
2.	Number of HEIs introducing cross-credit transfers	10	12	14	16	18	DHERST & HEIs
3.	Number of HEIs listed on the ⁵ Register	62	65	68	71	74	DHERST & HEIs
4.	Number of scheduled program reviews completed	18/30	20/30	22/30	24/30	26/30	DHERST & HEIs
5.	Number of online systems ⁶ used by HEIs	20	25	30	35	40	DHERST & HEIs
6.	Number of programmes resourced and implemented	9/16	10/16	11/16	12/16	13/16	DHERST & HEIs
7.	Number of scheduled institutional reviews completed	16/40	27/40	29/40	32/40	35/40	DHERST & HEIs

²Existing PIP

³Japan International Cooperation Agency

⁴This includes only Non-universities Governing Councils appointed by National Higher and Technical Education Board. It also includes HEIs receiving more than 50% government funding

⁵HEGPA 2014 s9

⁶These systems may include e-library, online management platforms, financial management systems, project management systems, human resources management systems, etc.

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency (ies)
8.	Number of M&E Reports ⁷	5	5	5	5	5	DHERST & HEIs
9.	Submission of financial and systems audit and compliance reports	48	48	48	48	48	DHERST & HEIs
10.	Co-hosting and supporting national education symposium and other related conferences annually	2	2	2	2	2	DHERST & HEIs
11.	Number of HEI plans developed or reviewed	10/48	15/48	20/48	25/48	30/48	DHERST & HEIs

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1	Strengthen and support DHERST mandate as a coordinating agency for the Higher and Technical Education sub-sector	National Higher & Technical Education Plan (NHTEP) 2021-2030, Higher and Technical Education Strategic Implementation Plan (HTESIP) 2017 - 2038, HEGPA 2020 as amended, Higher Education Reform Act 2020, National Skills Development Plan (NSDP) 2021 - 2025, NEC Decision NG 25/2017
2	Ensure the unification of higher and technical education through reforming the higher and technical education sub-sector	NHTEP 2021-2030, HTESIP 2017 - 2038, NSDP 2021-2025, NEC Decision NG 25/2017, Higher Education Reform Act 2020
3	Establish and implement NHTEMIS	NHTEP 2021-2030, HTESIP 2017 - 2038, NSDP 2021-2025
4	Coordinate infrastructure development funding and improvement of Project Management System	NHTEP 2021-2030, HTESIP 2017 - 2038, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024
5	Improve and strengthen financial audits, M&E and reporting systems and processes	NHTEP 2021-2030, HTESIP 2017 - 2038
6	Strengthen compliance and enforcement of the National Standards and National Qualifications Framework	NHTEP 2021-2030/ HTESIP 2017 - 2038, Papua New Guinea National Qualification Framework (PNGNQF)
7	Develop or review and align HEI's Development and Business Plans	NHTEP 2021-2030/ HTESIP 2017 - 2038, Governance Manual

Table 4: Indicators

Project Link	Outcome Indicators	Source	Baseline (2021)	Annual Targets				
				2023	2024	2025	2026	2027
1-3	1. Proportion of HEIs effecting the new governance and performance management framework arrangements ⁸	Governance Manual HEI reports	0%	82%	95%	100%	100%	100%
1-3	2. Proportion of HEIs using NHTEMIS to the total number of HEIs	ICT Audit Report	0.1%	5%	10%	20%	30%	40%
1-3	3. ⁹ Success rate of Public Investment programmes resourced and implemented	PIP reports	40%	56%	61%	66%	71%	76%

⁷Reports include DHERST M&E Report, Higher & Technical Education M&E report and PIP Quarterly Reports⁸Indicator is assessed against total number of HEIs implementing the Governance Manual⁹The data reflects project components resourced under the main program. Funding for some project components is multi-year.

Project Link	Outcome Indicators	Source	Baseline (2021)	Annual Targets				
				2023	2024	2025	2026	2027
1-3	4. Percentage of Government Expenditure on Higher and Technical Education as a share of Gross Domestic Product	National Budget	0.6%	0.8%	1.0%	1.2%	1.4%	1.6%
1-3	5. Percentage of annual increase in enrolments at HEIs	National Selections Report	10%	10%	10%	12%	12%	13%
1-3	6. Gender Parity Index (selected Grade 12 students for all HEIs)	NOSS	70%	72%	74%	76%	78%	80%
1-3	7. Percentage of the number of scheduled institutional reviews completed	QA ¹⁰ Reports	0%	30%	40%	50%	60%	70%
1-3	8. Percentage of the number of scheduled programme reviews completed	QA Reports	53%	60%	67%	73%	80%	87%
Lead Government Agency		Department of Higher Education Research Science and Technology						
Executing Agency		Department of Higher Education Research Science and Technology, National Higher and Technical Education Board						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						



¹⁰Quality Assurance

3.2.2 Business Colleges, Technical Colleges and Polytechnic Institutes

Goal: To develop a skilled PNG workforce through accelerated and sustainable skills development opportunities that create and support pathways for women and men in priority growth sectors of the economy, including the informal and formal sectors.

PNG has 13 recognised public TVET Colleges (3 business colleges, 9 technical and 1 polytechnic) that are in operation to support post-secondary TVET education and training. Facilities in most of these institutions are in dilapidated condition due to lack of maintenance and inadequate funding over the years. Consequently, the quality teaching and learning is affected and there is a shortage in the local supply of technical skills in PNG's labour market. This was exemplified in the first PNG Liquefied Natural Gas (LNG) project during the construction phase in 2012 where expatriate workers for the project had to be imported from overseas.

GoPNG is making significant efforts to close this skills gap and be better prepared for future opportunities through the implementation of the Higher Education Strategic Implementation Plan, National Skills Development Plan and the MTDP IV. In alignment with these plans, the ESDP requires an investment of **K977.4 million** to expand access to TVET and shift from supply-driven to demand driven TVET curriculum. This investment will be tied to five (5) investment programs:

- *Technical & Business College Infrastructure Rehabilitation Program*
Focuses on rehabilitation of infrastructure in the existing Technical and Business Colleges
- *Polytechnic Institute Roll-Out Program*
Supports the upgrading of existing Technical Colleges to Polytechnic status in each region and establishment of new Polytechnic Institutions in specific areas as directed by the Government.

- *National Skills Development Program*

Primarily supports the review, development and roll-out of National Training Packages for specific trade areas through the National Skills Development Agency (NSDA). This is to ensure quality and relevance of standardized TVET curriculum in PNG.

- *Improved TVET for Employment Project*

The Improved TVET for Employment (ITVET4E) project is a significant investment that will assist DHERST implement reforms in TVET. This project is jointly financed through a concessional loan from the Asian Development Bank (ADB), grant aid from the Department of Foreign Affairs and Trade (DFAT - Australia) and GoPNG. GoPNG's counterpart funding to the project to ensure that the Project Management Unit for this project is operational is reflected in the ESDP. Investment in this project will focus on improving infrastructure and equipment; improving governance and management; upskilling of TVET trainers; curriculum reviews and industry linkages. The ITVET4E project is limited to Agriculture and Construction programs only.

- *Provincial Technical Colleges Roll-Out Program*

To implement GoPNG directive for each Province to have a Technical College. This investment project is captured in MTDP IV.

The implementation of the ESDP will enable TVET institutions to improve infrastructure and training facilities; support teacher capacity; review and upgrade curriculum content; modernise teaching and training equipment and strengthen TVET policies. Moreover, this leads to greater access to quality technical education and skills training with the potential to contribute to Small-Medium Entrepreneurial (SME) activities and meet the socio-economic needs of the country.



3.XV BUSINESS COLLEGES, TECHNICAL COLLEGES AND POLYTECHNIC INSTITUTES LOGFRAME

Table 1: Investments²

DIP Ref	MTDP IV Investment Programs	Sector Alignment Invest- ment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs K mil)	Funding Source(s)
DIP 4.4	1. TVET Infrastructure Development Program 2. National Polytechnic College 3. Curriculum Development 4. Provincial Technical College	1. Technical & Business College Infrastructure program	DHERST	Provinces/ Districts	5.0	106.0	102.8	102.8	100.8	417.4	GoPNG/ DPs
DIP 4.4		2. Polytechnic Institute Rollout	DHERST	Provinces/ Districts	0.0	89.5	89.5	89.5	89.5	358.0	GoPNG/ DPs
DIP 4.5		3. National Skills Develop- ment program	DHERST	Provinces/ Districts	5.0	10.0	10.0	10.0	2.0	37.0	GoPNG/ DPs
DIP 4.4 DIP 4.5		4. Improved TVET for Em- ployment Project	DHERST	Provinces/ Districts	5.0	10.0	10.0	5.0	5.0	35.0	GoPNG/ ADB/ Australia
DIP 4.4		5. Provincial Technical College Roll-Out	DHERST	Provinces/ Districts	0.0	60.0	40.0	20.0	10.0	130.0	GoPNG/ DPs
Total					15.0	275.5	252.3	227.3	207.3	977.4	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency (ies)
1.	Number of teaching, learning and support infrastructure ³ in existing Business, Technical and Polytechnic Institutions	5	5	5	5	5	DHERST & HEIs
2.	Establish or upgrade a minimum of 1 new Business, Technical or Polytechnic institutions for the duration of the plan	0	0	0	1	1	DHERST & HEIs
3.	Number of modern teaching and learning resources ⁴	10	10	10	10	10	DHERST & HEIs
4.	Number of school leavers selected ⁵	6034	6517	7038	7601	8209	DHERST & HEIs
5.	Number of non-school leavers enrolled ⁶	2008	2188	2407	2672	2993	DHERST & HEIs

²2023 investment budget is as per 2023 development budget appropriation. The continuing years are calculated based on K20 Million for one(1) new technical /business /polytechnic college establishment and K3 million for existing Technical /business/polytechnic college rehabilitation.

³Teaching, Learning and Support infrastructure refers to minimum infrastructure requirements from the National Higher Education Standards for Institution Registration.

⁴Teaching, Learning and Support equipment refers to minimum fitouts and equipment relevant to the requirement from the National Higher Education Standards for Institution Registration. The numbers are based on equipment set rather than individual items.

⁵The formula - $T = 0.05 * P + B$ - is derived to generate the projections. T = Targeted Population, P = Period in Years, B = baseline data for the previous year. The selection of students into Business, Polytechnic and Technical colleges are projected to grow by 5% annually.

⁶The estimated average of non-school leavers selected is calculated based on the number of State funded HEIs (Technical, Business and Polytechnic) multiplied by an estimate of non-school leavers selected. Based on data reported, about 143 non-school leavers are selected by the respective executing agencies.

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency (ies)
6.	Number of graduates from Business, Technical and Polytechnic institutions	8327	8744	9181	9640	10122	DHERST & HEIs
7.	Number of graduates from the Business, Technical and Polytechnic Institutions meaningfully engaged in the labour market	5496	6033	6610	7230	7895	DHERST & HEIs
8	Number of Business, Technical and Polytechnic institutions delivering National Training Packages	0	5	10	15	20	DHERST & HEIs

Table 3: Strategies

No.	Sector Strategy	Provincial/Sector Plan or Policy Reference
1	Improve career guidance and awareness of Business, Technical and Polytechnic institution programmes to Grade 12 school leavers and non-school leavers	NHTEP 2021-2030, HTESIP 2017-2038, NSDP 2021-2025
2	Increase the number of student enrolment places available in the Business, Technical and Polytechnic institutions	NHTEP 2021-2030, HTESIP 2017-2038, NSDP 2021-2025, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024
3	Ensure the delivery and management of business and technical training program are relevant to industry standards	NHTEP 2021-2030, HTESIP 2017-2038, NSDP 2021-2025, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024
4	Encourage engagement of industry with regard to employment opportunities for graduates	NHTEP 2021-2030, HTESIP 2017-2038, NSDP 2021-2025, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024, NEC Decision 190/2020
5	Construct new and improve existing teaching, learning and support infrastructure for Business, Technical and Polytechnic institutions	NHTEP 2021-2030, HTESIP 2017-2038, NSDP 2021-2025, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024, NEC Decision 176/2019, NEC Decision 190/2020

Table 4: Indicators

Project Link	Outcome Indicators	Source	Baseline (2021)	Annual Targets				
				2023	2024	2025	2026	2027
1-5	1. Proportion of Gr. 12 students applying (first preference only) to Business, Technical and Polytechnic institutions of the total grade 12 school leavers. ⁷	National Online Application system (NOAS)	19%	21% ⁸	23%	25%	27%	29%
1-5	2. Proportion of grade 12s selected out of the total that applied to study in Business, Technical and Polytechnic institutions of the total applicants apply.	National Online Selection System (NOSS)	47%	55%	63%	71%	79%	87% ⁹
1-5	3. Growth rate of non-school leavers selected to study at the Business, Technical and Polytechnic institutions	Business, Polytechnic and Technical Colleges	8% ¹⁰	8%	9%	10%	11%	12%

⁷ The estimated average of non-school leavers selected is calculated based on the number of State funded HEIs (Technical, Business and Polytechnic)

⁸ multiplied by an estimate of non-school leavers selected. Based on data reported, about 143 non-school leavers are selected by the respective executing agencies.

⁹ Business, Technical and Polytechnic are from the Business academic program. The deducted proportion have been distributed to the teacher logframe, Indicator 3

¹⁰ The baseline indicator is based on the current estimated growth rate of enrollment of non-school leavers into the HEIs.

1-5	4. Proportion of students selected for the total program quota of the Business, Technical and Polytechnic programmes	National Online Selection System (NOSS)	64% ¹¹	68%	72%	76%	80%	84%
1-5	5. Proportion of Business, Technical and Polytechnic institution graduates meaningfully engaged in the labour market after one year of graduation	Graduate Tracer Study, Labour Market Assessment	63% ¹²	66%	69%	72%	75%	78%
Lead Government Agency		Department of Higher Education Research Science and Technology, Department of Transport, National Fisheries College, National Maritime Safety Authority						
Executing Agency		Business, Technical and Polytechnic Institutions: Port Moresby Business College, Kokopo Business College, Caritas Business College, Port Moresby Technical College, Madang Technical College, Bougainville Technical College, Mt Hagen Technical College, Goroka Technical College, West New Britain (Moramora) Technical College, Kiunga TVET Centre (Western Province Technical College)*, Don Bosco Technological Institute-POM, Don Bosco Technological College-Simbu, National Polytechnic Institute of PNG, Southern Highlands Technical College*, Minj Technical College, ICT Technical College Wabag*, Simbu National Polytechnic Institute*, West Sepik Technical College*, Malalaua Technical College*, Bougainville Polytechnic Institute*, Manus Polytechnic Institute*, Namatanai Technical College*, Milne Bay Technical College*						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						

¹¹This proportion represents the total number of students selected against the total available quota for Business, Technical and Polytechnic programmes. Although there were available spaces, only 46% of the applicants met the requirements and were selected.

¹²This is based on the estimated data obtained from the ADB Capacity Needs Assessment of 10 TVET colleges

*Not in operation and under construction.

3.2.3 Agriculture and Specialised Colleges

Goal: To develop specialised skilled and knowledgeable human resource capacity for the agriculture, forestry and maritime industries to support development needs in an innovative manner.

The agriculture and specialised colleges consist of seven (7) institutions comprising the Highlands Agriculture College; the Higher Education Institute of Rural Science and Technology (UOG Bainyik campus); the Eastern Papua Institute of Agriculture Technology (UNRE Oro Campus); the Timber and Forestry Training College (UOT), Bulolo University College (UOT); the PNG Maritime College and the National Fisheries College. Unfortunately, most of these colleges are confronted by management challenges coupled with deteriorating physical infrastructure.

Furthermore, there is a lack of continuous review of the curricula on offer in the agriculture and specialised colleges to meet the human resources requirements in the other economic sectors. Whilst the Government intends to facilitate growth in the agriculture sector through both large-scale agricultural enterprises and smallholder growers to meet domestic and international needs, small-scale agriculture continues to be the major form of agriculture business in PNG. The current level of graduates in agriculture colleges is not sufficient to effectively contribute to optimal productivity levels in the agriculture sector. Data from the Annual Survey of Institutions of Higher Education between 2011-2016 reveal that the percentage of agriculture graduates from the total number of graduates annually were only 2% compared to other fields of study.

The agriculture and specialised colleges are slowly being revived through the reforms. Further infrastructure development and rehabilitation including improvements in the governance and management of these colleges are needed to support quality and increase demand for agriculture and specialised programmes. Higher and technical education can contribute towards the Government's objectives in achieving sustainable economic growth by producing graduates with specialised skills.

ESDP requires **K204.0 million** to invest in modern infrastructure and teaching and learning resources to ensure quality education in the agriculture and specialised colleges. The investment will be aligned to two (2) main investment programmes;

- *Agriculture College development programme*
To build and rehabilitate teaching, learning and support facilities for agriculture, forestry, livestock, aquaculture and maritime training and to procure equipment and machinery for skills development that meet industry requirements.
- *Specialized Training Colleges Infrastructure Development Programme*
To build and rehabilitate teaching, learning and support facilities for Specialized College, which will enhance the learning of the college students.

The investments will improve the colleges capacity to provide practical hands-on diploma programmes in agro business, crop management, livestock management, forestry, fisheries and maritime technology to meet the workforce demands of the agriculture and transport sector.

3.XVI AGRICULTURE AND SPECIALISED COLLEGES LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.3	1. Highlands Agriculture College University (Hati, Mt Hagen)	1. Agriculture College Development Programme ²	DHERST	Provinces/Districts	3.0	69.0	50.0	40.0	10.0	172.0	GoPNG/DPs
DIP 4.5	2. Specialized Training Colleges Infrastructure Development Programme	2. PNG Maritime College Development Programme	DHERST	Provinces/Districts	0.0	8.0	8.0	8.0	8.0	32.0	GoPNG/DPs
Total					3.0	77.0	58.0	48.0	18.0	204.0	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Number of teaching & learning and support infrastructure built for Agriculture and Specialised Colleges ³	1	1	2	2	1	DHERST & HEIs
2.	Number of teaching and learning equipment for Agriculture and Specialised Colleges ⁴	5	5	5	5	5	DHERST & HEIs
3.	Establish a maximum of 2x new Agriculture and Specialised Colleges. ⁵	0	0	1	0	1	DHERST & HEIs
4.	Number of programs diversified to meet industry requirements.	10	11	12	13	14	DHERST & HEIs
5.	⁶ Number of graduates from the agriculture and specialised colleges	457	493	533	575	622	DHERST & HEIs
6.	Number of graduates from agricultural and other specialised colleges meaningfully engaged in the labour market after one year of graduating.	343	395	453	518	590	DHERST & HEIs
7.	Number of students selected to Agriculture and Specialised Colleges ⁷	686	741	800	864	933	DHERST & HEIs
8.	Number of non-school leavers enrolled to Agriculture and Specialised Colleges	276	301	331	368	412	DHERST & HEIs

²This program covers forestry and fisheries colleges

³Teaching, Learning and Support infrastructure refers to minimum infrastructure requirements from the National Higher Education Standards for Institution Registration.

⁴Teaching, Learning and Support equipment refers to minimum fit outs and equipment relevant to the requirement from the National Higher Education Standards for Institution Registration. The numbers are based on equipment set rather than individual items.

⁵Over the 5 year period

⁶Baseline data is derived from DHERST TESAS awarding information and it is projected to increase by 5%-10% as this is the average growth rate in previous years and it will be feasible to achieve. This will be aimed at increasing the number of technical skilled labour in the agriculture sector, Department of Agriculture and Livestock (2020, p.5)

Reference: Department of Agriculture and Livestock. (2020). Agriculture Medium Term Development Plan, 2020-2022. Port Moresby, Papua New Guinea: Author

⁷Numbers are inclusive of both school leavers and non-school leavers. Gender Parity Index can be calculated from this deliverable over the years

Table 3: Strategies

No	Sector Strategy	Sector Plan or Policy Reference
1.	Improve grade 12 school leavers' career guidance and awareness of agricultural and specialised programmes.	NHTEP 2021-2030, HTESIP 2017-2038, NSDP 2021-2025
2.	Increase the number of student places for Agriculture and Specialised Colleges by diversifying programs.	NHTEP 2021-2030, HTESIP 2017-2038, NSDP 2021-2025, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024, Agriculture Medium Term Development Plan 2020 - 2022
3.	Enhance collaboration with the Department of Agriculture and Livestock, Department of Personnel Management, industry and other relevant agencies to create employment opportunities for graduates.	NHTEP 2021-2030, HTESIP 2017-2038, NSDP 2021-2025,, Agriculture Medium Term Development Plan 2020 - 2022
4.	Ensure the delivery and management of technical training programmes are relevant to industry needs and standards.	NHTEP 2021-2030, HTESIP 2017-2038, NSDP 2021-2025, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024, Agriculture Medium Term Development Plan 2020 - 2022
5.	Construct new and improve existing teaching, learning and support infrastructure for Agriculture and Specialised Colleges.	NHTEP 2021-2030, HTESIP 2017-2038, NSDP 2021-2025, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024, Agriculture Medium Term Development Plan 2020 - 2022
6.	Develop or review and align Institutions' Development and Business Plans.	NHTEP 2021-2030, HTESIP 2017-2038, NSDP 2021-2025, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024

Table 4: Indicators

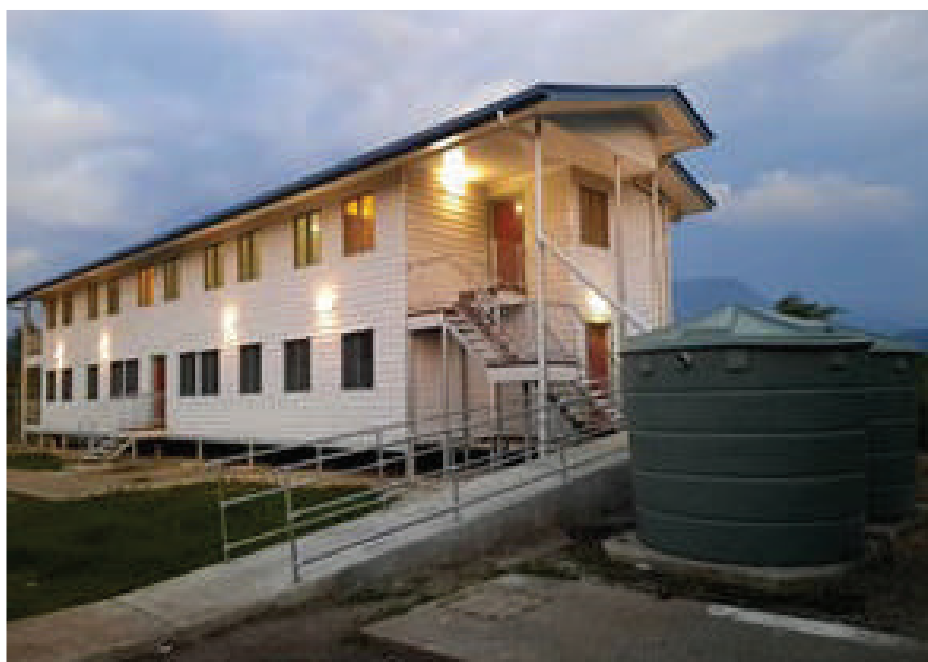
Project Link	Outcome Indicator	Source	Baseline (2021)	Annual Targets				
				2023	2024	2025	2026	2027
1-2	1. Proportion of grade 12 students applying (first preference only) to agriculture and specialized colleges of the total grade 12 school leavers ⁸ .	National Online Application System (NOAS)	0.2%	1% ⁹	2%	3%	4%	5%
1-2	2. Proportion of Grade 12 students selected out of the total that applied to study in agriculture and specialised colleges of the total applicants apply.	National Online Selection System (NOSS)	0.4%	1%	1.5%	2%	2.5%	3%
1-2	3. Growth rate of non-school leavers selected to study at the agriculture and specialised colleges ¹⁰	Agriculture and Specialised Colleges reports	8%	8%	9%	10%	11%	12%
1-2	4. Proportion of students selected to the total quota of agriculture and specialised programs.	National Online Application System (NOAS)	34%	37%	41%	44%	47%	50%

⁸This indicator is calculated based on the number of Grade 12s in a year applying (first preference) to study in the Agriculture Colleges and other Specialized Colleges.

⁹The proportion of indicator 1 has been increased by 5% that was removed from indicator 1 of University logframe.

¹⁰The baseline indicator is based on the current estimated growth rate of enrollment of non-school leavers into the HEIs

Project Link	Outcome Indicator	Source	Baseline (2021)	Annual Targets				
				2023	2024	2025	2026	2027
1-2	5. Proportion of agriculture and specialised college graduates meaningfully engaged in the labour market after one year of graduating.	Graduate Tracer Study Labour Market Assessment Survey	75% ¹¹	75%	80%	85%	90%	95%
Lead Government Agency		Department of Higher Education Research Science and Technology (DHERST), Department of Agriculture & Livestock, National Department of Education (NDoE), National Maritime Safety Authority (NMSA), National Fisheries Authority (NFA), Department of Transport, PNG Forest Authority (PNGFA).						
Executing Agency		Highlands Agriculture College (HAC), Higher Education Institute of Rural Science and Technology (UOG Bainyik campus), Eastern Papua Institute of Agriculture and Technology (UNRE Oro Campus), Timber and Forestry Training College (UOT), Bulolo University College (UOT), PNG Maritime College, National Fisheries College.						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						



¹¹Baseline data is based on estimates provided by HEIs.

3.2.4 Nursing Colleges

Goal: To develop effective, efficient and equitable nursing colleges to facilitate student access to high quality nursing education and training to generate a skilled group of nurses to support national health and development goals.

Papua New Guinea's population is estimated to be in the region of 9 million while the United Nations provided a conservative estimate of about 17 million (NRI, 2023). With such a population size and limited numbers of health professionals employed in the health sector, the country is faced with a dire need to recruit new nursing graduates. Additionally, the country is faced with the dilemma of not having enough nursing positions available in the health sector as well as an ageing nursing personnel. It is imperative therefore that the Government creates more positions to employ new graduates to ease the recruitment process; reverse workforce attrition and maintain the delivery of essential health services.

There are currently 12 nursing colleges (excluding two amalgamated colleges) that offer the Diploma in General Nursing. According to the Annual Survey of Institutions of Higher Education (2015), Nursing Colleges enrol an average of 800 students and produce 200 graduates on average per annum. Nursing colleges' graduates are critical to maintaining the health workforce in delivering front-line health services and address the health workforce issues. The PNG Development Strategic Plan 2010-2030 aims to increase the number of nurses to cater for future surges in population from a baseline of 2844 to 19500 nurses by 2030. The current population-to-nurse ratio is approximately 2041 patients to 1 nurse (PNGDSP, 2010). It is apparent that the number of graduates in nursing colleges is insufficient to meet the demands of the health sector.

The Government is working towards addressing the issue of shortages in the health workforce by investing in nursing colleges. The ESDP requires an investment of **K324 million** (see investment table below) to enhance the capacity of colleges to produce more graduates to enable

an improvement in the nurse -to- patients ratio.

- *Nursing College Infrastructure and Rehabilitation programme*
The focus of this programme is to improve learning facilities in order to provide quality Nursing Training.



3.XVII NURSING COLLEGES LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.5	1. Specialized Training Colleges Infrastructure Development Programme	1. Nursing College Infrastructure and Rehabilitation program	DHERST	Provinces/Districts	20.00	85.0	80.0	78.0	61.0	324.0	GoPNG/DPs
Total					20.0	85.0	80.0	78.0	61.0	324.0	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Establish a maximum of 2x new Nursing Colleges ²	0	0	1	0	1	DHERST & HEIs
2.	Number of Nursing Colleges offering specialised nursing programmes.	1	1	1	1	1	DHERST & HEIs
3.	Number of teaching and learning resources for Nursing Colleges ³	10	10	10	10	10	DHERST & HEIs
4.	Number of teaching & learning and support infrastructure built for Nursing Colleges ⁴	5	5	5	5	5	DHERST & HEIs
5.	Number of nursing graduates meaningfully engaged in the labour market after one(1) year of graduating.	388	408	429	450	474	DHERST & HEIs
6.	Number of graduates from nursing colleges ⁵	431	448	466	484	504	DHERST & HEIs
7.	Number of School Leavers students selected ⁶	1176	1633	2090	2548	3005	DHERST & HEIs

Table 3: Strategies

No	Sector Strategy	Sector Plan or Policy Reference
1.	Diversify nursing programs and increase programme quota.	NHTEP 2021-2030, HTESIP 2017-2038, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024, National Health Plan (NHP) 2021-2030
2.	Increase the number of student enrolments for Nursing Colleges.	NHTEP 2021-2030, HTESIP 2017-2038, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024, NHP 2021-2030

²Over the 5 year period

³Teaching, Learning and Support equipment refers to minimum fitouts and equipment relevant to the requirement from the National Higher Education Standards for Institution Registration. The numbers are based on equipment set rather than individual items.

⁴Teaching, Learning and Support infrastructure refers to minimum infrastructure requirements from the National Higher Education Standards for Institution Registration.

⁵Number of graduates projected to meet National Health Plan nursing workforce targets

⁶The formula - $T = 0.04 * P + B$ - is derived to generate the projections. T = Targeted Population, P = Period in Years, B = baseline data for the previous year. The selection of students into Nursing colleges are projected to grow 4% annually to meet the National Health Plan workforce projections.

No	Sector Strategy	Sector Plan or Policy Reference
3.	Ensure the delivery and management of nursing programs meets health standards.	NHTEP 2021-2030, HTESIP 2017-2038, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024, NHP 2021-2030, PNG National Qualifications Framework, Nursing Competency Standards
4.	Construct new and improve existing teaching, learning and support infrastructure for nursing colleges.	NHTEP 2021-2030, HTESIP 2017-2038, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024, NHP 2021-2030
5.	Enhance collaboration with the Department of Health, Nursing Council, Department of Personnel Management, Provincial Health Authorities and other relevant agencies to understand workforce demand for the health sector.	NHTEP 2021-2030, HTESIP 2017-2038, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024, NHP 2021-2030

Table 4: Indicators

Project Link	Outcome Indicator	Source	Baseline (2021)	Annual Targets				
				2023	2024	2025	2026	2027
1	1. Proportion of Grade 12 students applying (first preference only) to nursing colleges of the total Grade 12 school leavers. ⁷	National Online Application System (NOAS)	12%	13%	15%	17%	19%	21%
1	2. Proportion of Grade 12 students selected out of the total that applied to study in the nursing colleges	National Online Selection System (NOSS)	2.4%	3%	4%	5.5%	6%	⁸ 6.4%
1	3. Growth rate of non-school leavers selected to study in the nursing colleges ⁹	Nursing Colleges' registration record	10%	11%	12%	13%	14%	15%
1	4. Proportion of students selected to the total quota of the nursing programme	National Online Selection System (NOSS)	84%	87%	91%	94%	97%	100%
1	5. Proportion of nursing college graduates meaningfully engaged in the labour market after one year of graduating. ¹⁰	Nursing Colleges	90%	91%	91%	92%	93%	94%
Lead Government Agency		Department of Higher Education Research Science and Technology (DHERST), Nursing Council, Medical Board, National Department of Health, Provincial Health Authorities						
Executing Agency		Boram School of Nursing (DWU campus), Lutheran School of Nursing, Lae School of Nursing, Highlands College of Nursing, Nazarene College of Nursing, Mendi School of Nursing, Enga School of Nursing, St. Barnabas School of Nursing, St. Mary's School of Nursing (DWU), West New Britain School of Nursing, Arawa School of Nursing, St. Mary's Lemakot School of Nursing, Kundiawa School of Nursing, Rumginae School of Nursing						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						

⁷This indicator is calculated based on the number of Grade 12s in a year applying to study in the Nursing Colleges.

⁸The proportion of indicator 2 has been increased by 6% while decreasing the indicator 2 of University logframe by the same proportion.

⁹The baseline indicator is an estimated growth rate calculated based on a 5 year period (2017-2023) and the number of nursing HEIs that submitted data.

¹⁰The baseline indicator is an estimated proportion of nursing graduates employed and is based on the number of HEIs that submitted data.

3.2.5 Teacher Colleges

Goal: To nurture a world class teacher education system while increasing access to quality education to develop highly qualified teachers.

There are currently 16 teacher colleges (excluding two amalgamated colleges) that offer programmes ranging from Early Childhood Learning, the Diploma in Primary Teaching and the recently introduced Bachelor in Education programme (BEd). The introduction of the BEd has created a need for additional classrooms, teaching and learning resources, student accommodation and staff accommodation to cater for the numbers of students undertaking the programme. In addition, although the colleges have mostly outdated and inadequate infrastructure, including poor teaching and learning resources, they however continue to enrol over 4,000² students annually.

Quality and access to teacher education continue to be a significant challenge for the sector while there is also a considerable backlog of lecturer upgrading in the teacher colleges that has persisted for many years. Government's strategic priorities are therefore to increase access to high quality learning, to ensure teacher colleges have strong and effective governing bodies and to strengthen leadership and lecturer upskilling in the core content of the degree. The Government is also focusing on promoting digitalisation in teacher education to encourage innovative approaches to learning in parallel with the improvement of reporting, accountability, transparency and data efficiency.

The ESDP will require an investment of **K316 million** to improve the infrastructure conditions and enhance access to learning resources in the colleges. This will enable students to access high-quality teaching and learning resources in every college which will be supported through

regular quality assurance against the National Standards to ensure consistency in content delivery across the colleges. The investment programme is outlined below;

- *Teacher College Infrastructure programme.*

The focus of this programme is to improve learning facilities in order to provide quality Teacher Training.



²Annual Survey of Institutions of Higher Education, 2015

3.XVIII TEACHER COLLEGES LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.5	1. Specialized Training Colleges Infrastructure Development Programme	1. Teacher Colleges Infrastructure program ²	DHERST	Provinces/Districts	20.0	91.0	87.0	59.0	59.0	316.0	GoPNG/DPs
Total					20.0	91.0	87.0	59.0	59.0	316.0	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Establish a maximum of 2x new Teacher Colleges	0	0	1	0	1	DHERST & HEIs
2.	Number of teaching and learning resources for Teacher Colleges ³	10	10	10	10	10	DHERST & HEIs
3.	Number of teaching and learning and support infrastructure built for Teacher Colleges ⁴	5	5	5	5	5	DHERST & HEIs
4.	Number of graduates from the Bachelor of Education programme ⁵	10	20	30	40	50	DHERST & HEIs
5.	Number of graduates in teacher colleges ⁶	1087	1191	1294	1397	1500	DHERST & HEIs
6.	Number of school leavers student selected ⁷	2433	2890	3347	3805	4262	DHERST & HEIs
7.	Number of non-school leavers selected	454	494	544	604	676	DHERST & HEIs
8.	Number of Teacher College graduates registered by TSC and meaningfully engaged in the labour market one year after graduating.	1440	1587	1748	1927	2123	DHERST & HEIs

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Improve career guidance and awareness of teacher training programme to grade 12 school leavers	NHTEP 2021-2030, HTESIP 2017-2038, DHERST Strategic Priorities-Teacher Colleges 2020

²2023 investment budget is as per 2023 development budget submission. The continuing years are calculated based on K20 Million for one(1) new teacher college establishment and K3 million for existing teacher college rehabilitation.

³Teaching, Learning and Support equipment refers to minimum fitouts and equipment relevant to the requirement from the National Higher Education Standards for Institution Registration. The numbers are based on equipment set rather than individual items.

⁴Teaching, Learning and Support infrastructure refers to minimum infrastructure requirements from the National Higher Education Standards for Institution Registration.

⁵Trains the teachers in specialised subjects (eg: english, mathematics, science and social science)

⁶Number of graduates projected to meet National Education Plan 2020-2029

⁷The formula - $T = 0.09 * P + B$ - is derived to generate the projections. T = Targeted Population, P = Period in Years, B = baseline data for the previous year. The selection of students into the Teacher colleges are projected to grow 9% annually to meet the National Education Plan (2020-2029) Targets.

No.	Sector Strategy	Sector Plan or Policy Reference
2	Increase the number of student places for Teacher Colleges.	NHTEP 2021-2030, HTESIP 2017-2038, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024, DHERST Strategic Priorities-Teacher Colleges 2020, National Education Plan (NEP) 2020-2029
3.	Ensure the delivery and review of the Diploma and Bachelor in Primary Teacher Education are benchmarked against the national standards.	NHTEP 2021-2030, HTESIP 2017-2038, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024, DHERST Strategic Priorities-Teacher Colleges 2020, NEP 2020-2029
4.	Construct new and improve existing teaching, learning and support infrastructure for teacher colleges	NHTEP 2021-2030, HTESIP 2017-2038, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024, DHERST Strategic Priorities-Teacher Colleges 2020, NEP 2020-2029
5.	Enhance collaboration with the National Department of Education, Teaching Service Commission and other relevant agencies to create employment opportunities for graduates.	NHTEP 2021-2030, HTESIP 2017-2038, DHERST Strategic Priorities-Teacher Colleges 2020, NEP 2020-2029

Table 4: Indicators

Project Link	Outcome Indicator	Source	Baseline (2021)	Annual Targets				
				2023	2024	2025	2026	2027
1	1. Proportion of grade 12 students applying (first preference only) to teacher colleges of the total grade 12 school leavers. ⁸	National Online Application System (NOAS)	33%	35%	37%	39%	40%	41%
	2. Proportion of grade 12 students selected out of the total that applied to study in teacher colleges of the total applicants apply.	National Online Application System (NOAS)	14%	15%	17%	18%	20%	21%
	3. Growth rate of non-school leavers selected to study at the teacher colleges ¹⁰	Teacher Colleges' registration record/ Register Module	8%	8%	9%	10%	11%	12%
	4. Proportion of teacher college graduates meaningfully engaged in the labour market after one year of graduating	Teacher Colleges	90%	91%	91%	92%	93%	94%
	5. Proportion of students selected to the total programme quota of teacher programme	National Online Selection System (NOSS)	92%	94%	96%	98%	100%	100%
Lead Government Agency		Department of Higher Education Research Science and Technology (DHERST), Teaching Service Commission, National Department of Education						
Executing Agency		Teacher colleges - Balob, Dauli, Enga, Gaulim, Holy Trinity, Madang, Melanesian Nazarene, PNG Education Institute, Sacred Heart (Bomana), St Peter Chanel, Simbu, Sonoma, Rev. Maru, Milne Bay, Nuku, Southern Highlands, DWU Amalgamated Teacher Colleges- Kabaleo (Kokopo) & St. Benedict's (Wewak).						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						

⁸This indicator is calculated based on the number of Grade 12s in a year applying (first preference) to study in Teacher Colleges.⁹¹⁰The baseline indicator is an estimated growth rate calculated based on a 5 year period (2017-2022) and the number of teacher HEIs that submitted data.

3.2.6 Universities

Goal: To develop effective, efficient and equitable universities that facilitate access to high quality education and improving research capacity at the university to contribute to knowledge creation and national development goals.

Universities in PNG are in both public and private ownership, responsible for educating and nurturing talented individuals in their fields of study and knowledge generation through research. Limited institutional capacity in terms of infrastructure, technology and human resources are some of the major constraints that affect the conduct of research and delivery of quality academic programmes. Universities are faced with severe financial constraints with the majority of institutions operating on outdated infrastructure that does not have the capacity to meet the increasing number of student enrolments. Minimal government funding, as well as poor coordination of the support of development partners, has impacted upon the ability of universities to build new infrastructure to accommodate their increased enrolments. In addition to the lack of infrastructure, universities are faced with the challenge of establishing online platforms for e-learning and encouraging innovation in programme delivery.

At the same time, limited research is being conducted by universities, despite the clear desire of many academics to engage in research. In general, research coordination is weak at both the institutional and sectoral level. There are opportunities for more collaborative and development research activities between universities, national research institutes, government and industry.

In the next five years, the Government will focus on investments in infrastructure development (including ICT), teaching and learning resources, capacity development for university staff and an increase in research grants. The ESDP will require an investment of **K795 million**. The investment programmes are provided in the investment table below. The programmes focus on infrastructure development, maintenance and modernization across universities in PNG. This includes providing

necessary infrastructure and resources to establish and develop new universities.

- *University of Papua New Guinea Infrastructure Maintenance*
- *University of Technology Infrastructure Development (Telikom College)*
- *Multipurpose Hall (University of Technology)*
- *Library Extension (University of Technology)*
- *University of Goroka Infrastructure Development programme*
- *Central Administration Building (University of Goroka)*
- *University of Natural Resources Infrastructure Development programme*
- *Western Pacific University Infrastructure*
- *Divine Word University Infrastructure*
- *Pacific Adventist University Infrastructure*
- *Innovative University of Enga (IUE)*
- *Higher Education Infrastructure programme*
- *PNG Medical University (UPNG SMHS)*
- *Sir Michael Somare University (PILAG)*

3.XIX UNIVERSITIES LOGFRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.3	1. University Capacity Building & Infrastructure Development Programme	1. University of Papua New Guinea Infrastructure Maintenance	DHERST	Provinces/Districts	10.0	10.0	10.0	10.0	10.0	50.0	GoPNG/DPs
		2. University of Technology Infrastructure Development (Telikom College)	DHERST	Provinces/Districts	10.0	16.0	13.0	13.0	13.0	65.0	GoPNG/DPs
		3. Multipurpose Hall (University of Technology)	DHERST	Provinces/Districts	10.0	5.0	5.0	3.0	2.0	25.0	GoPNG
		4. Library Extension (University of Technology)	DHERST	Provinces/Districts	3.0	3.0	3.0	2.0	1.0	12.0	GoPNG
		5. University of Goroka Infrastructure Development program	DHERST	Provinces/Districts	5.0	10.0	9.0	3.0	3.0	30.0	GoPNG/DPs
		6. Central Administration Building (University of Goroka)	DHERST	Provinces/Districts	10.0	6.0	5.0	5.0	5.0	31.0	GoPNG
		7. University of Natural Resources Infrastructure Development program	DHERST	Provinces/Districts	10.0	7.0	10.0	10.0	10.0	47.0	GoPNG/DPs
		8. Western Pacific University Infrastructure ²	DHERST	Provinces/Districts	0.0	30.0	25.0	25.0	25.0	105.0	GoPNG/PRC Grant
		9. Divine Word University Infrastructure	DHERST	Provinces/Districts	5.0	5.0	5.0	5.0	5.0	25.0	GoPNG/DPs
		10. Pacific Adventist University Infrastructure	DHERST	Provinces/Districts	5.0	5.0	5.0	5.0	5.0	25.0	GoPNG/DPs

²Investment figures from 2023 - 2026 are inclusive of annual grants (K20 million per year) from the Peoples' Republic of China. GoPNG's funding over the 5 years is projected to be K5 Million per year.

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.3	1. University Capacity Building & Infrastructure Development Programme	11. Innovative University of Enga (IUE)	DHERST	Provinces/ Districts	0.0	10.0	10.0	10.0	10.0	40.0	GoPNG/ CoL ³ /DPs
		12. *Higher Education Infra-structure program	DHERST	Provinces/ Districts	0.0	10.0	10.0	10.0	10.0	40.0	GoPNG/ DPs
		13. PNG Medical University (UPNG SMHS)	DHERST	Provinces/ Districts	50.0	40.0	30.0	20.0	10.0	150.0	GoPNG/ DPs
		14. Sir Michael Somare University (PILAG)	DHERST	Provinces/ Districts	0.0	20.0	50.0	50.0	30.0	150.0	GoPNG/ DPs
Total					118.0	177.0	190.0	171.0	139.0	795.0	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Number of programmes reviewed	5	10	15	20	25	DHERST & HEIs
2.	Number of up-to-date teaching and learning equipment ⁴	20	20	20	20	20	DHERST & HEIs
3.	Number of teaching, learning and support buildings ⁵	3	3	3	3	3	DHERST & HEIs
4.	Number of university research publications in internationally recognized journals	10	12	12	14	14	DHERST & HEIs
5.	Number of university research publications that contribute to achieving the national research agenda	10	15	20	25	30	DHERST & HEIs
6.	Number of school leavers selected	3888	4013	4141	4274	4411	DHERST & HEIs
7.	Number of non-school leavers enrolled in the universities	1296	1413	1554	1725	1932	DHERST & HEIs
8.	Number of graduates	5070	5222	5378	5540	5706	DHERST & HEIs
9.	Number of graduates from universities meaningfully engaged in the labour market after one year of graduating.	3650	3864	4087	4321	4565	DHERST & HEIs

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Ensure suitably-qualified students enroll in available student places in universities	NHTEP 2021-2030, HTESIP 2017-2038

³Commonwealth of Learning

⁴Teaching, Learning and Support equipment refers to minimum fitouts and equipment relevant to the requirement from the National Higher Education Standards for Institution Registration. The numbers are based on equipment set rather than individual items.

⁵Teaching, Learning and Support infrastructure refers to minimum infrastructure requirements from the National Higher Education Standards for Institution Registration.

2.	Ensure the delivery and management of academic and training programme are bench-marked against National Standards ⁶	NHTEP 2021-2030, HTESIP 2017-2038, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024
3.	Construct new and improve existing teaching, learning and support infrastructure for universities	NHTEP 2021-2030, HTESIP 2017-2038, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024
4.	Increase cross-university partnerships at national and international levels	NHTEP 2021-2030, HTESIP 2017-2038, PNG National Trade Policy 2017-2032
5.	Expand and diversify academic and training program offered in accordance with development priorities	NHTEP 2021-2030, HTESIP 2017-2038
6.	Support collaborative research in PNG that is consistent with national policies	Science & Technology Plan 2020 – 2030, NHTEP 2021-2030, HTESIP 2017-2038
7.	Develop, review and align universities' development plans	NHTEP 2021-2030, HTESIP 2017-2038, PNG Sector Plan and Budget for Higher and Technical Education 2020-2024

Table 4: Indicators

Project Link	Outcome Indicator	Source	Baseline (2021)	Annual Targets				
				2023	2024	2025	2026	2027
1-14	1. Proportion of the Grade 12 students applying (first preference only) to universities of the total Grade 12 school leavers.	NOAS	63%	58%	53%	48%	43%	40% ⁷
1-14	2. Proportion of Grade 12 students selected out of the total that applied to study at the universities	NOAS	36%	35%	34%	33%	32%	30% ⁸
1-14	3. Proportion of students selected to the total programme quota of university programme	NOAS	80%	90%	100%	100%	100%	100%
1-14	4. Growth rate of non-school leavers selected to study at the universities	NOAS	8%	9%	10%	11%	12%	8%
1-14	5. Proportion of university graduates meaningfully engaged in the labour market after one year of graduating ⁹	Graduate Tracer Study	70%	72%	74%	76%	78%	80%
Lead Government Agency		Department of Higher Education Research Science and Technology (DHERST), PNG Science and Technology Secretariat						
Executing Agency		UPNG (Waigani Campus), University of Papua New Guinea School of Medicine & Health Sciences (Taurama Campus), PNG University of Technology, UOG, University of Natural Resources and Environment, Western Pacific University, Pacific Adventist University, Divine Word University, Sir Michael Somare University, Enga Innovative University, Lutheran University						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						

⁶National Standards are bench-marked against regional and international standards⁷The proportion of indicator 1 have been reduced by 23% and distributed to indicators 1 of Business and Technical, Nursing and Specialized HEI types⁸The proportion of indicator 2 has been reduced by 6% and distributed to increase the indicator 2 in Nursing logframe.⁹Baseline data for graduate employment is based on pilot graduate tracer study conducted in 2015.¹⁰Annual Survey of Institutions of Higher Education

3.3 RESEARCH, SCIENCE AND TECHNOLOGY

3.3.1 Research, Science and Technology

Goal: By 2027, facilitate science and technological activities by improving research and development facilities and capabilities to support education action research together with an increase in the scientific and technological workforce.

In the case of research and development activities, 'scientists' are synonymous with researchers and assistant researchers engaged both in the natural sciences and in social sciences and humanities.

The ESDP RST Log-frame is focused on contributing innovatively to the education system especially to address the undermentioned issues.

- The lack of quality research and development infrastructure. In 2016, universities had a total of 173 research labs, 118 of which were being used for research and training, whilst 55 needed major maintenance as they were unusable and in need of replacement.
- The lack of full-time researchers. Despite having qualified researchers, the amount of time dedicated to research is declining and this is reflected in the data on Full-Time Equivalents (FTE) - the measure of the volume of human resources in research and development. In 2016, the FTE was 35.48821. Medical, health sciences and natural science disciplines are more frequently found in academic training through research compared with engineering and technology, social sciences (education sciences included) and humanities.
- The lack of partnerships and collaboration for Education Action Research. In 2021, the Inventory of Institutional Education Research Programmes across the Higher and Technical Education sub-sector, Government and Private-Non-Profit recorded only four national level research and development programmes dedicated to education action research of which two were postgraduate programmes.

The log frame further aligns and contributes to the following Science Technology Innovation key enablers in the *Science Technology Innovation Plan 2023-2030*:

1. National R&D Infrastructure
 - Improves research infrastructure and management capacity to meet its national and regional needs.
2. National Science R&D Grant
 - Identifies priority research areas and promotes training, capacity building, knowledge sharing and innovation based on the National Research Agenda.
3. National Science Awareness
 - Increases the capacity of PNG's citizens to understand and apply RSTI.

ESDP will require an investment of K90.55 million to implement the RSTI sub-sector development priorities, namely R&D facilities, R&D personnel competency, innovation and, lastly, an enabling policy environment. The two (2) main investment programmes include;

- Socio economic policy research and
- Research and Development.

3.XX RESEARCH, SCIENCE, TECHNOLOGY LOG FRAME

Table 1: Investments

DIP Ref	MTDP IV Investment Programs	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 9.5	1. Socio economic policy research support programme	1. Socio economic policy research	PNG STS	Provinces/ Districts	0.00	6.00	3.00	3.00	3.00	15.00	GoPNG/ DPs
DIP 4.3 DIP 9.1 DIP 9.6		2. Research & development programme	PNG STS	Provinces/ Districts	0.55	15.00	20.00	20.00	20.00	75.55	GoPNG/ DPs
Total					0.55	21.00	23.00	23.00	23.00	90.55	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
R&D Programs in HEIs							
1.	Number of HEI Research Centres & Labs Grants refurbished	5	5		4	4	PNG STS
2.	Number of HEI Research Support Grants						PNG STS
3.	Number of Research publication and papers presented at international conferences by the Education Sector		3	3	3	3	PNG STS
Number of Research Internships programmes							
4.	Biotechnology RD Programme		1	1	1	1	PNG STS
5.	Engineering and Technology RD Programme		1		1	1	PNG STS
6.	Life and Traditional Knowledge RD Programme		1	1		1	PNG STS
National Science Research Fellowship programme							
7.	Biotechnology RD Programme		1	1	1	1	PNG STS
8.	Engineering and Technology RD Programme		1	1	1	1	PNG STS
9.	Life and Traditional Knowledge RD Programme		1	1	1	1	PNG STS
Number of HEI R&D Projects funded (by Fields of R&D)							
10.	a. Medical Research		2	4	4	3	PNG STS
11.	b. Natural Sciences	3	3	4	4	3	PNG STS
12.	c. Agriculture, Fisheries and Forestry	1	4	4	4	3	PNG STS
13.	d. Engineering and Technology	2	4	4	4	3	PNG STS

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
14.	e. Social Sciences	4	2	4	4	3	PNG STS
15.	f. Humanities and Arts		2	4	4	3	PNG STS
Number of HEI Research Publications (By Field of R&D)							
16.	a. Medical Research		2	4	4	3	PNG STS
17.	b. Natural Sciences	3	3	4	4	3	PNG STS
18.	c. Agriculture, Fisheries and Forestry	1	4	4	4	3	PNG STS
19.	d. Engineering and Technology	2	4	4	4	3	PNG STS
20.	e. Social Sciences	4	2	4	4	3	PNG STS
21.	f. Humanities and Arts		2	4	4	3	PNG STS
R&D support for Education Sector							
22.	a. Number of STEM Labs and resource support grants		1	2	1	1	PNG STS
23.	b. Number of Education Action Research Projects with NDoE and DHERST	3	3	3	3	3	PNG STS
24.	c. Number of Education Action Research Publications	1	3	3	3	3	PNG STS
25.	d. Number of Regional Science Fairs		1	1	1	1	PNG STS
26.	e. Number of National Education Research Conferences/ Seminars	3	1	1	1	1	PNG STS

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1	Build Capacity of Research Institutions in the country including universities	STI Plan (2023-2030)
2	Support Universities and Research Institutions to take up research as an important pathway for development of the country	DSP 2015 - 2030
3	Build RSTI Education partnerships and engagement	STI Plan (2023-2030)

Table 4: Indicators

Project Link	Outcome Indicator	Source	Baseline (2022)	Annual Targets				
				2023	2024	2025	2026	2027
R&D Program in HEIs								
1-2	1. Proportion of HEI Research Centres/ Laboratories refurbished	PNG STCS RCAS 2016	92% (50/600)	93%	94%	96%	98%	100%
	2. Number of Researchers in Universities (HC)	PNG STCS RCAS 2016	598 (HC)	605	615	715	815	915

Project Link	Outcome Indicator	Source	Baseline (2022)	Annual Targets				
				2023	2024	2025	2026	2027
1-2	3. Number of Researchers Full Time Equivalence (FTE)	PNGSTS Annual Management Report 2021	70.35 (FTE)	100	160	260	360	460
	3.1 By Field of R&D (FTE)		14.2	19.2	29.2	45.2	61.2	77.2
	3.2 Health and Medical Sciences		14	19	29	45	61	77
	3.3 Natural Sciences		20.25	25.25	35.25	51.25	67.25	83.25
	3.4 Agriculture, Fisheries and Forestry		14	19	29	45	61	77
	3.5 Engineering and Technology		5	10	20	36	52	68
	3.6 Social Sciences		2.9	7.9	17.9	33.9	49.9	65.9
	3.7 Humanities and Arts		9	11	20	25	30	35
	4. Number of Collaborative Research Programmes							
R&D support for Education Sector								
1-2	5. Number of Education sector Research support grants	PNGSTS Annual Management Report 2021	0					
	6. Number of Partnerships		9	11	20	25	30	35
	7. Number of Science Exhibitions		1	2	2	3	3	4
Lead Government Agency		PNG Science and Technology Secretariat						
Executing Agencies		DHERST, NDoE, National Research Institutel, PNG University of Technology, University of Papua New Guinea, UOG, Pacific Adventist University, Divine Word University, Institute of Business Studies University, University of Natural Resources and Environment, National Agriculture Research Institute, Western Pacific University and other relevant stakeholders						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						

3.4 EDUCATION SECTOR WORKFORCE DEVELOPMENT

3.4.1 Education Sector Workforce Development

Goal: To develop a knowledgeable, competent and adaptable workforce to provide quality leadership, advice and effective and efficient implementation of services in the education system and research to thrive in the knowledge economy.

Educational institutions are confronted with the challenge of insufficient specialised skilled personnel. A study focused on the workforce requirements of universities (2014), showed that there were fewer academics with doctoral and master's qualifications teaching in PNG universities as compared to universities elsewhere in the southwest Pacific countries. This has been compounded both by an ageing workforce and academics leaving to acquire jobs in other sectors with more attractive employment conditions.

Furthermore, the current transition of teacher colleges to a semi-autonomous model under the oversight of the Ministry for Higher Education, Research, Science and Technology requires the strengthening of their leadership and administrative capabilities.

At the basic education level, there exists an acute shortage of teachers as a result of a low retention rate. Also, in tandem with the planned implementation of the new education structure of 1-6-6, most teachers will need to upgrade their qualifications to move from teaching in elementary schools to primary schools or from primary to secondary schools. Elementary teachers will also have to undergo early childhood training to teach at preparatory level.

Investment in the education workforce is critical for driving the major reforms being implemented in the education system such as: government's priorities of providing universal basic education to all school-aged children; restructuring of the formal basic education system to include early childhood learning; semi-autonomous management

of colleges; and the creation of 30,000 placements for new intakes in higher and technical education. ESDP will require an investment of **K384 million** to build the capacity of the education sector workforce through upgrading of their educational qualifications and building the competencies of trainers, academics and administrators. The investment will be aligned to the following programmes;

- Joint Scholarship programs (Post-Graduate level)
The programme will focus on building the workforce capacity of the Education Sector at a post graduate level.
- Teacher In-service upgrade Program
To provide and coordinate teacher in-service training in order to enhance their teaching knowledge and skills.
- TVET Teacher Training and In-Service Programme
To provide and coordinate TVET teacher in-service training in order to enhance their teaching knowledge and skills.

3.XXI EDUCATION SECTOR WORKFORCE DEVELOPMENT LOGFRAME

Table 1: Investments

Link code	MTDP IV Investment	Sector Alignment Investment Programs/Projects	Implementing Agency	Location	2023 (K mil)	2024 (K mil)	2025 (K mil)	2026 (K mil)	2027 (K mil)	Total estimated costs (K mil)	Funding Source(s)
DIP 4.3	1. Tertiary Education Scholarship & HELP	1. Joint Scholarship programs (Post-Graduate level)	DHERST, NDoE, TSC	Provinces/ Districts	20.0	38.0	38.0	38.0	38.0	172.0	GoPNG/ DPs/ PPPs
DIP 4.3	2. Quality Teacher Training & Development	2. 166 Teacher Inservice upgrade Program	DHERST, NDoE, TSC	Provinces/ Districts	20.0	38.0	38.0	38.0	38.0	172.0	GoPNG/ DPs/ PPPs
DIP 4.5	3. Teacher Training & In-service Programme	3. TVET Teacher Training and In-Service Programme	DHERST, NDoE, TSC	Provinces/ Districts	0.0	10.0	10.0	10.0	10.0	40.0	GoPNG/ DPs/ PPPs
Total					40.0	86.0	86.0	86.0	86.0	384.0	

Table 2: Key Result Areas

No.	Key Performance Indicators	2023	2024	2025	2026	2027	Responsible Agency(ies)
1.	Number of scholarships offered for post-graduate programmes by sub-sectors a. Higher and Technical Education & General Education	3	3	3	4	4	DHERST, NDoE, TSC, HEIs and Schools
2.	Number of teachers upskilled through scholarships	3	3	3	4	4	DHERST, NDoE, TSC, HEIs and Schools
3.	Number of scholarships offered for TVET instructors	3	3	3	4	4	DHERST, NDoE, TSC, HEIs and Schools
4.	Number of subject specialist teachers trained (STEAM, Inclusive Education)	3	3	3	4	4	DHERST, NDoE, TSC, HEIs and Schools
5.	Number literacy teachers trained	3	3	3	4	4	DHERST, NDoE, TSC, HEIs and Schools
6.	Number of qualified academics and TVET instructors	3	3	3	4	4	DHERST, NDoE, TSC, HEIs and Schools
7.	Number of heads of institutions trained in leadership and management	3	3	3	4	4	DHERST, NDoE, TSC, HEIs and Schools
8.	Number of teachers trained in Technology Enabled Learning (TEL)	3	3	3	4	4	DHERST, NDoE, TSC, HEIs and Schools
9.	Education Sector Workforce needs assessment report yearly	1	1	1	1	1	DHERST, NDoE, TSC, HEIs and Schools

Table 3: Strategies

No.	Sector Strategy	Sector Plan or Policy Reference
1.	Enhance capacity development for academics and non-academic staff of Higher and Technical Education institutions (Post-Secondary Colleges and Universities)	NHTEP 2021 - 2030[1], HTESIP 2017-2038, NEP 2020-2029,

No.	Sector Strategy	Sector Plan or Policy Reference
2.	Enhance capacity development for teachers, trainers and support staff from ECE, primary schools, high schools, secondary schools, NSOE, FODE, vocational schools, inclusive education	NHTEP 2021 – 2030, NSDP 2021 - 2025[2] NEP 2020-2029,
3.	Support up-grading of qualifications for existing preschool teachers with a minimum of Grade 10 Certificate through FODE and VET Education	NEP 2020-2029, Early Childhood Policy 2022 - NSDP 2021 – 2025
4.	Develop, coordinate and expand scholarship subsidy opportunities for education sector workforce	NHTEP 2021 – 2030, NSDP 2021 - 2025
5.	Develop and periodically update education sector workforce needs assessment	NHTEP 2021 – 2030, NSDP 2021 - 2025

Table 4: Indicators

Project Link	Outcome Indicator	Source	Baseline (2022)	Annual Targets				
				2023	2024	2025	2026	2027
1-3	1. Proportion of academic and non-academic staff with post-graduate qualification by sub-sector; Higher and Technical Education ² General Education	DHERST Human Resource Report (DoE/TSC sources)	20%	21% DoE to provide data	22% DoE to provide data	23% DoE to provide data	24% DoE to provide data	25% DoE to provide data
1-3	2. Proportion of teachers from ECE, IE, VET, and primary schools with a minimum diploma level qualification in teaching	EMIS	ECE(0.5%)	ECE(5%)	ECE(15%)	ECE(25%)	ECE(35%)	ECE(45%)
1-3	3. Proportion of teachers/academics from Primary School, Secondary Schools, FODE, and non-universities Colleges with a minimum undergraduate qualification - Primary School - Secondary School - FODE - Non-universities College ³	NDoE NDoE NDoE ASIHE	NA NA NA 61%	DoE to provide data 70%	DoE to provide data 79%	DoE to provide data 88%	DoE to provide data 95%	DoE to provide data 100%
1-3	4. Proportion of TVET trainers with a minimum of Certificate IV in Training and Assessment	DHERST	NA	50%	55%	60%	65%	70%
Lead Government Agency		DHERST, NDoE, TSC						
Executing Agency		DHERST, NDoE, TSC,						
Sector Coordination Mechanism		Education Sector Development Plan Steering Committee						

²The baseline is based on data collected through the ASIHE conducted in 2016. Total baseline is 3532 covering both non-academics and academic staff.

³The baseline is based on data collected through the ASIHE conducted in 2016. The total baseline is 372 covering only academic staff.



Students returning home after school, Kwikila

PART

4

Financing the Plan



**EDUCATION SECTOR DEVELOPMENT PLAN
2023 - 2027**

PART 4: FINANCING THE PLAN

The education sector investment costs are based on estimates made in the various logical frameworks and are spread between the Ministries of Education and Higher Education, Research, Science and Technology (HERST). The ESDP requires a total investment of **K5.19 billion** over the period of the MTDP IV (2023 - 2027) to implement the plan effectively. This amount is tied to specific investment programmes and projects which aim to improve indicators across all sub-sectors in the education system.

Investments in the basic education sub-sector comprise 38.05% (K1.973 billion) of the total investment while 60.21% (K3.122 billion) and 1.75% (K90.55 million) are for higher and technical education and research respectively. All investment programmes and projects in the ESDP are aligned to the objectives of Strategic Priority Areas 4 (Quality Education & Skilled Human Capital) and 9 (Research, Science & Technology) of MTDP IV 2023 - 2027.

The MTDP IV commits an investment of K4.19 billion for Quality Education and Skilled Human Capital. The total ESDP investment of K5.19 billion requires an additional K1.0 billion. Hence, financing the ESDP requires a strategic partnership across government and the private sector to achieve the ESDP goal *“to cultivate a generation of Educated, Skilled, Productive, and innovative citizens who will contribute to a prosperous future for Papua New Guinea”*.



Table 4.1 Total Summary of Financing Requirements of the ESDP Investment Programmes (PGK million)

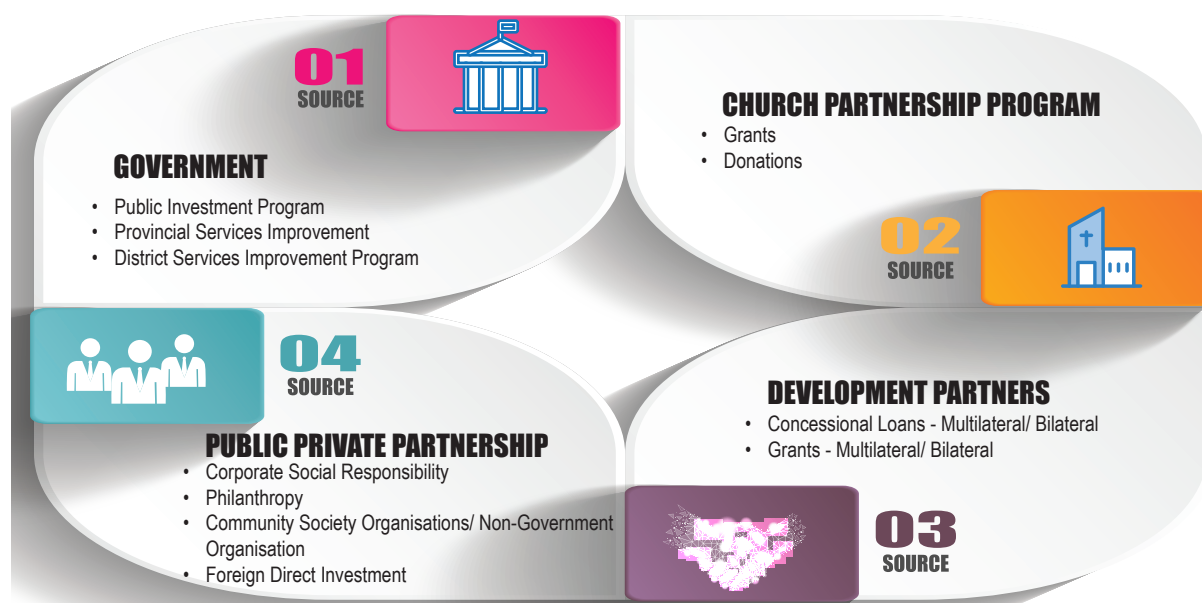
Sector Component	2023 (K'm)	2024 (K'm)	2025 (K'm)	2026 (K'm)	2027 (K'm)	Total (K'm)	Share of Total ESDP Investment by Sector Component (%)
General Education							
Sub-sector Governance: Basic Education	0.38	2.40	2.40	2.40	2.40	9.98	0.19
Early Childhood Education	2.50	12.00	12.00	12.00	12.00	50.50	0.97
Pre-School	3.50	12.00	12.00	12.00	12.00	51.50	0.99
Primary Education	19.96	157.32	157.36	157.36	157.46	649.46	12.53
High and Secondary Education	17.00	41.18	41.22	41.25	41.34	181.99	3.51
Vocational Training	0.00	150.00	150.00	150.00	150.00	600.00	11.57
National School of Excellence	10.00	20.00	20.00	20.00	20.00	90.00	1.74
FODE	3.27	16.40	16.40	16.40	16.40	68.87	1.33
Inclusive Education	1.18	9.80	9.80	9.80	9.80	40.38	0.78
Teaching Service	1.50	34.50	44.50	44.50	44.50	169.50	3.27
Library and Archives Services	8.27	10.90	10.82	10.80	10.60	51.39	0.99
Literacy Education Services	0.57	1.60	1.50	1.50	1.50	6.67	0.13
Governance of Literacy Education Service	0.10	0.60	0.60	0.60	0.60	2.50	0.05
Total Investment - General Education (K'm)	68.23	468.70	478.60	478.61	478.60	1972.74	38.05
<i>As share of Total ESDP Investment (%)</i>	23.71	35.66	37.18	39.95	43.59	38.05	
<i>As share of GDP (%)</i>	0.06	0.38	0.36	0.34	0.31		
<i>As share of National Expenditure (%)</i>	0.27	1.71	1.68	1.61	1.54		
Higher and Technical Education							
Sub-Sector Governance: Higher & Technical Education	3.00	33.00	32.50	27.00	26.00	121.50	2.34
Business, Technical and Polytechnic Institutions	15.00	275.50	252.30	227.30	207.30	977.40	18.85
Agriculture & Specialised Colleges	3.00	77.00	58.00	48.00	18.00	204.00	3.93
Nursing Colleges	20.00	85.00	80.00	78.00	61.00	324.00	6.25
Teaching Colleges	20.00	91.00	87.00	59.00	59.00	316.00	6.09
Universities	118.00	177.00	190.00	171.00	139.00	795.00	15.33
Education Sector Workforce Development	40.00	86.00	86.00	86.00	86.00	384.00	7.41
Total Investment - Higher & Technical Education (K'm)	219.00	824.50	785.80	696.30	596.30	3121.90	60.21
<i>As share of Total ESDP Investment (%)</i>	76.10	62.74	61.04	58.13	54.31	60.21	
<i>As share of GDP (%)</i>	0.20	0.67	0.59	0.49	0.39		
<i>As share of National Expenditure (%)</i>	0.86	3.01	2.76	2.34	1.92		
Research, Science & Technology (RST)							
Research Science & Technology	0.55	21.00	23.00	23.00	23.00	90.55	1.75
Total Investment - RST (K'm)	0.55	21.00	23.00	23.00	23.00	90.55	
<i>As share of Total ESDP Investment (%)</i>	0.19	1.60	1.79	1.92	2.09	1.75	
<i>As share of GDP (%)</i>	0.00	0.02	0.02	0.02	0.02		
<i>As share of National Expenditure (%)</i>	0.00	0.08	0.08	0.08	0.07		
Grand Total ESDP Investment (K'm)	287.78	1314.20	1287.40	1197.91	1097.90	5185.19	100
As share of GDP (%)	0.26	1.07	0.97	0.84	0.72		
As share of National Expenditure (%)	1.14	4.80	4.52	4.02	3.52		

4.1 Financing Through Partnerships

GoPNG is committed to financing the investment programmes in the ESDP, recognising that education is a fundamental public good. GoPNG also acknowledges the significant contributions from development partners, the private sector, Churches and non-governmental organisations in PNG's human capital development over the last decade. The effective implementation of the ESDP hinges on continued and improved partnerships with all partners given GoPNG's resource limitation.

Partnerships in financing education will be the responsibility of the National Government, Subnational levels of Government (Province, District and LLG), Development Partners, Private Sector, Churches, Non-Governmental Organisations and Communities.

Figure 4.1: Financing of the ESDP 2023 - 2027



It is crucial that the Government collaborate with key partners in providing education to the general populace to achieve optimal outcomes. The collaboration in financing education will be aligned to key governmental partnership frameworks and programmes such as the Papua New Guinea Development Cooperation Policy, Public Private Partnership Policy and Church Partnership Programme.

Over the years major investments in education include the BEST PNG Programme with K8.8 million, Technical and Business College Rehabilitation at K8.0 million, and the Centre for Excellence Information Technology receiving K4.0 million with allocations to the Human Resource Development Phase II (HRDP2) (K11.5 million grant). The sector's ongoing investments include community education initiatives; nursing education and training; teachers and teacher training institutions; technical and business colleges; the establishment of polytechnic and national universities; the transition from Outcome-Based Education to the Standard-Based Education curriculum and restructuring of the school system from 3-6-4 to 1-6-6 and the GTFS Policy.

4.2 Government of PNG

The Government will be the primary financier of education services, recognising that education is a fundamental human right. The Government will support the delivery of education services via its development initiatives coordinated through its annual development budget. The Public Investment Programme, Provincial Services Improvement Programme and District Services Improvement Programme are the three main programmes in the annual development budget that will support the financing of education.

4.3 Development Partners

Development partners continue to support critical development initiatives in the education sector. The investments are either in the form of grants or concessional loans and technical assistance mainly supporting scholarships, capacity building, training and infrastructure development. Some of the major development projects currently in progress in the higher and technical education sector include the PNG Skills for Sub-National Growth (Australian Government), Western Pacific University Development (People's Republic of China Government), Improved TVET for Employment Project (Asian Development Bank) and the Strengthening Primary Teacher Pre-Service Education in Maths and Science Project (Japan Government).

4.4 Public Private Partnerships

Public Private Partnership (PPP) arrangements will be an essential funding mechanism for ESDP project implementation. In 2002, the Government conducted a review of the privatisation policy, and it was further concluded that 'Public Private Partnerships (PPP) would become an important part of the Government's strategy for structural reform and improving service delivery' (Public Private Partnership Policy, 2008, p.3). The PPP Policy was endorsed by the government in 2008 and the PPP Law passed in 2014 (Savadogo and Ezebilo, 2018, p.9).

The Government will collaborate with the private sector to deliver major infrastructure development projects in the education sector. Projects implemented under the PPP Policy will be coordinated by the Department of National Planning to provide technical support in terms of developing the arrangements between the Government and private sector and also assess whether the PPP project will be best implemented via a PPP arrangement.

The Government will collaborate with the Private Sector to enhance and strengthen education initiatives in alignment with the Private Sector's Corporate Social Responsibility strategies. Corporate Social Responsibility initiatives are important investments to the communities with which corporations are engaged because their daily activities and operations have an impact both internally and externally. The collaboration will promote the development of shared value among all stakeholders.

The Government will consider using mechanisms such as the Infrastructure Tax Credit Scheme (ITCS). The Tax Credit Scheme contributed to some of the major governmental development projects over the years. The Tax Credit Scheme allows a company to reduce its amount of income tax by a certain percentage which is equal in relative terms to the amount of a community development project that is of a nature of public good or service. The government can then utilise existing capacities of the company to achieve development.

4.5 Church Partners

The Church-Government partnership has contributed significantly to PNG's development and service delivery. The main objectives of partnership have been to improve PNG churches' contribution to health care, education and social service delivery in PNG and to improve the institutional capacity of PNG churches to engage more as civil society actors.

The Government will continue to strengthen its partnership with churches in order to deliver much-needed services in remote and rural areas where government capacity to provide health, education and social services is limited.



Local Teacher at Lake Murray, Western Province

PART

5

Managing the Implementation of the Plan



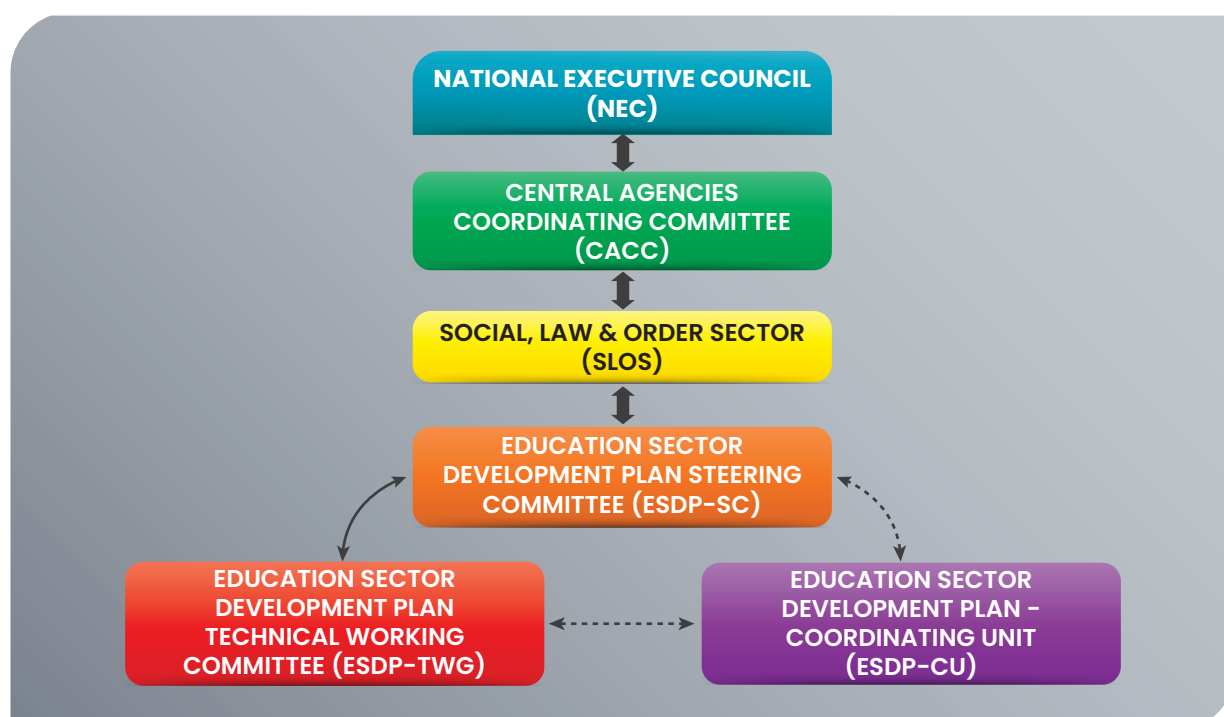
**EDUCATION SECTOR DEVELOPMENT PLAN
2023 - 2027**

PART 5: MANAGING THE IMPLEMENTATION OF THE PLAN

The ESDP will be implemented in accordance with the National Planning Framework, National Planning and Monitoring Act, 2016, Public Finance Management Act (PFMA) 2014 with amendments, and the legislated management and governance structures of all the education legislations, principally the Education Act, Teaching Service Act, Library and Archives Act, the Higher Education General Provisions Act (2014) as amended, the Higher and Technical Education Reform Act 2020, PNG Science & Technology Council Act, and all universities' legislations.

5.1 Governance of the Plan

Figure 5.1 Education Sector Development Plan Governance Structure



The ESDP will be coordinated and managed through the governing structure depicted above in Figure 5.1, which also makes clear the reporting channels for the ESDP.

As per the MTDV IV (p.48-51), the high-level coordinating mechanism to provide the oversight over the implementation, resource mobilisation and reporting will be the Social, Law and Order Sector (SLOS). Since the SLOS encompasses other extensive sectors such as health, community development, and law and order, an ESDP Steering Committee (ESDP-SC) specific to the education sector will be established to provide oversight, direction and policy advice relating to the investments and implementation of the ESDP. The two Education Ministries, in collaboration with the central government agencies, provinces and districts, development partners, private sectors, NGOs and other key stakeholders will implement the ESDP 2023-2027 through the ESDP-SC. Partnerships and linkages of national sector agencies with key stakeholders and development partners are paramount and will encourage transparency, accountability, ease of communication, and effective coordination, management and implementation at all levels of activity.

5.1.1 Education Sector Development Plan Steering Committee (ESDP-SC)

The ESDPSC is a sectoral level sub-set working committee of the SLOS and will be co-chaired by the Secretary for DHERST and the Secretary for Education in the NDoE. The committee members comprise the Chairman of the TSC, the Director General for OLA and the CEO of PNGSTS. The Steering Committee is the policy decision making body for the ESDP that will meet every quarter. The ESDP-SC will be supported by officers who occupy technical roles in planning, budgeting, monitoring, evaluation and reporting through an Education Sector Development Plan Technical Working Group (ESDP-TWG) and ESDP Coordination Unit (ESDP-CU).

5.1.2 Education Sector Development Plan - Coordinating Unit (ESDP-CU)

The Coordinating Unit will ensure the sector's investment requirements under the ESDP are aligned to the MTDP IV Key Result Areas (KRAs), and that funds are appropriated accordingly to implement key investment programmes within the ESDP (2023-2027). The coordination unit will assist the education agencies to liaise with DNPM and DoT to solicit funds for the investment programmes of the ESDP on a timely basis, and also report on the use of funds and progress towards the annual targets.

A government agency will be identified by the ESDP-SC to house the coordinating unit. The coordinating unit will have representatives from all responsible education agencies and relevant central agencies working together to implement the ESDP.

5.1.3 Education Sector Development Plan - Technical Working Group (ESDP-TWG)

The Technical Working Group will report directly to the ESDP-SC. The TWG will comprise DHERST, NDoE, OLA, TSC, PNGSTS, central agencies and other key education stakeholders. Officers representing each agency in the ESDPTWG will coordinate the collection of data from their respective agencies and work with the coordinating unit to produce timely monitoring and evaluation reports for the ESDPSC. The TWG will also provide technical planning and budget inputs and will meet six times annually with four Reporting Meetings and two Planning Meetings.

The table below provides further details of the three ESDP committees, some of their core functions and level of representation (membership details). A specific terms of reference will be developed for the three committees to ensure efficiency and effectiveness, and achievement of the ESDP goal.

Table 5.1: Membership Function and Composition

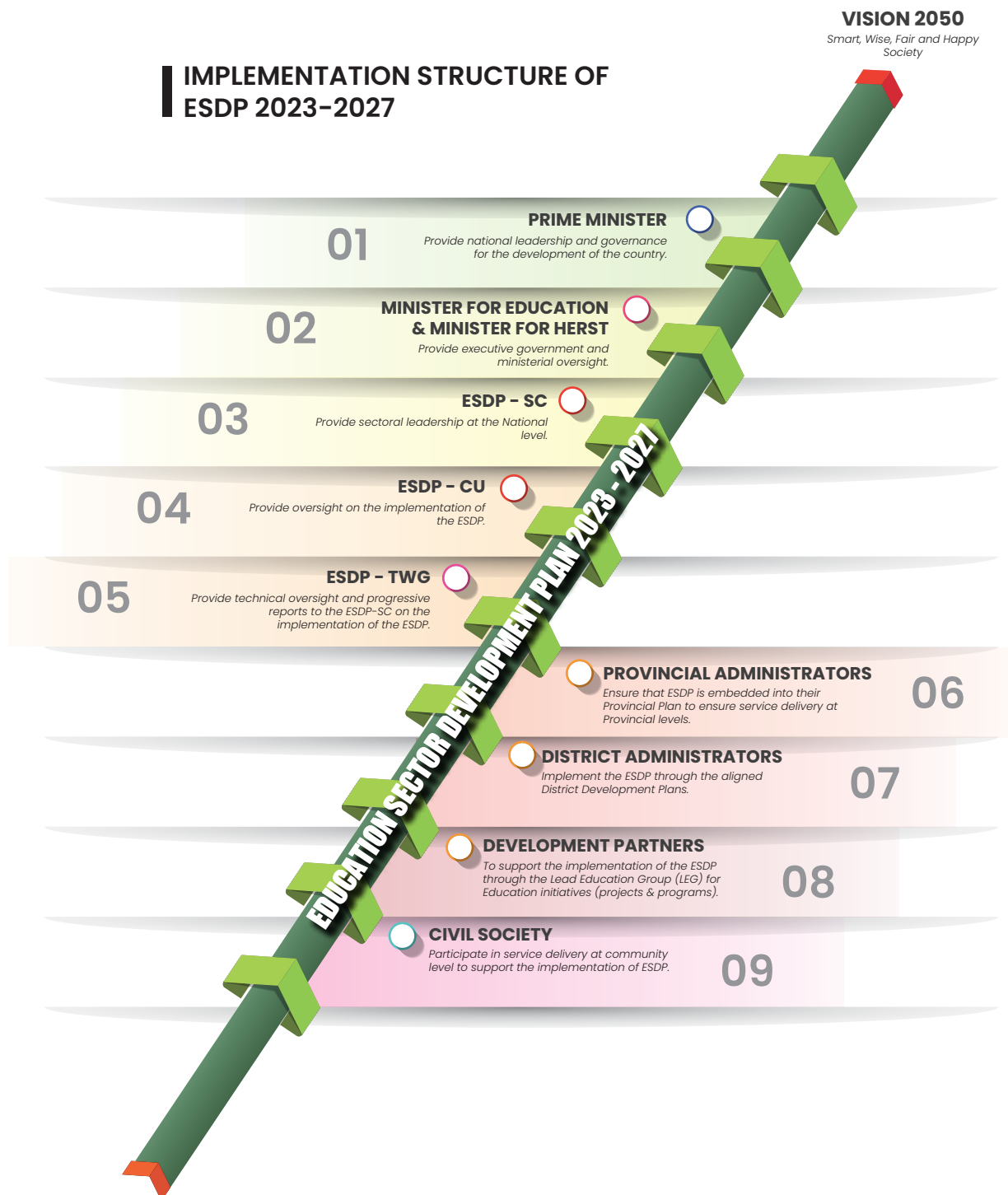
Name of Committee	Core Functions	Membership
Education Sector Development Plan Steering Committee (ESDP-SC)	• Make policy, budget and resource allocation decisions on the ESDP investment programmes • Endorse the work plan of activities for the ESDP and the investment programs. • Approve education sector projects as per the respective ESDP investment programs	Secretaries / Chairmen/ CEOs / Director Generals Alternates to be Deputy Secretaries and/or equivalents. (DHERST, PNGSTS, NDoE, OLA, TSC, and relevant Central Agencies)

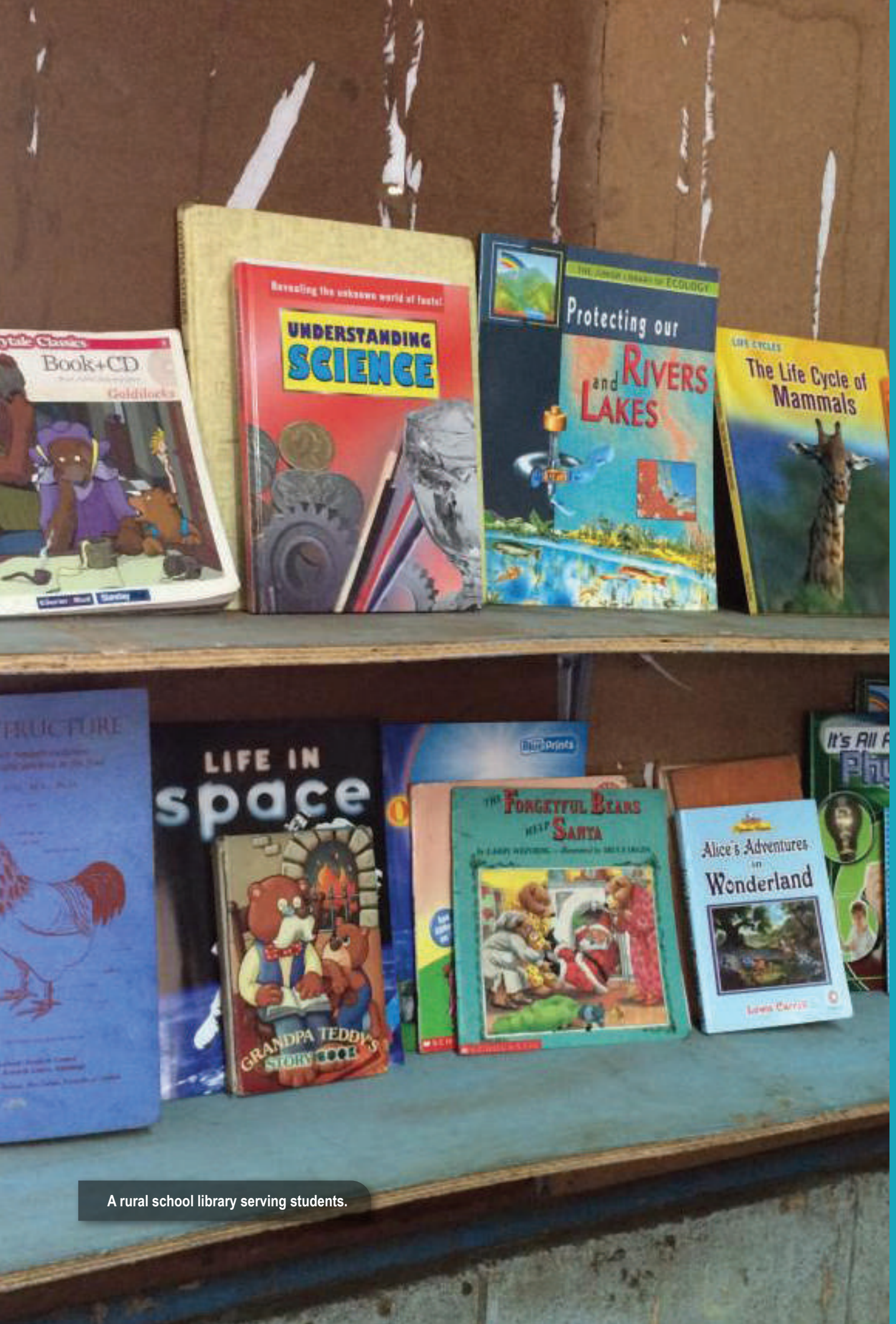
Name of Committee	Core Functions	Membership
Education Sector Development Plan Coordination Unit (ESDP-CU) In line with the sector budget coordination approach as required by the Departments of National Planning and Monitoring (DNPM) and Treasury (DoT), the ESDPCU will lead and coordinate the education sector budget and ensure the budget is aligned to the ESDP during its tenure	Provide oversight on the sector's: • Coordination and management of the implementation of ESDP • Inform the Secretaries, Chairmen, Commissioners, Directors and Minister(s) for Education on progress of ESDP's implementation • Provide guidelines on the implementation strategy to other key stakeholders • Review and approve the ESDP Implementation Strategy. • Investment requirements under the ESDP in alignment with MTDP IV's Strategic Priority Areas (SPA), KRAs.	First Assistant Secretary (FAS), Directors, CACC Reps - PM&NEC (Education), DNPM (Macro Planning and PIP) Department of Treasury, Department of Finance, Budget Management Committee Rep National Education Line Agency reps (NDoE, DHERST, PNGSTS, TSC, OLA) Provincial and District Education Representatives
Education Sector Development Plan Technical Working Group (ESDP-TWG) The ESDP-TWG will be the technical working group and will report directly to the ESDP-SC.	Inform the ESDPSC of the ESDP implementation; • Quarterly technical / monitoring reports on the progress of ESDP implementation towards annual targets, and challenges • Quarterly and annual budget notes and estimates for the implementation of the ESDP, investment programs and projects. • Provide technical advice and guidelines on the implementation strategy to other key stakeholders. • Annual indicator and targets reports	Assistant Secretaries, Managers, Directors, Technical Officers (DHERST, PNGSTS, NDoE, OLA, TSC, relevant Central Agencies other key education stakeholders)

5.2 Implementation of the Plan

The implementation plan of the ESDP is adapted from the MTDP IV as presented in Figure 5.2 below.

Figure 5.2: Implementation Structure of ESDP





A rural school library serving students.

PART

6

Monitoring, Evaluation, Reporting & Learning (MERL)



**EDUCATION SECTOR DEVELOPMENT PLAN
2023 - 2027**

PART 6: MONITORING, EVALUATION, REPORTING AND LEARNING (MERL)

This sector development plan is aligned to the overarching national goals of:

1. *Providing the higher skills, knowledge and innovation needed for PNG's sustainable development, and*
2. *Achieving quality education and training for all.*

The benefits of education related reforms and the immediate outcomes of the effective implementation of this plan will not accrue immediately but rather be realised over the 5-year implementation period.

Implementation of the ESDP will be monitored in compliance with the Public Finance Management Act and DNPM's Policy M&E framework. Line agencies and statutory authorities are required to provide information on the progress of the project or programme's expected outputs and outcomes against their indicators as set out in the governance structure (figure 5.2) and the reporting templates at the end of this section.

Monitoring and evaluating the implementation of the ESDP is an essential task that will and must be conducted throughout the lifespan of the plan. Hence, this section outlines the monitoring mechanisms by which the sector agencies will keep track of the progress of the implementation of the ESDP.

6.1 Monitoring and Evaluation (M&E) of the ESDP

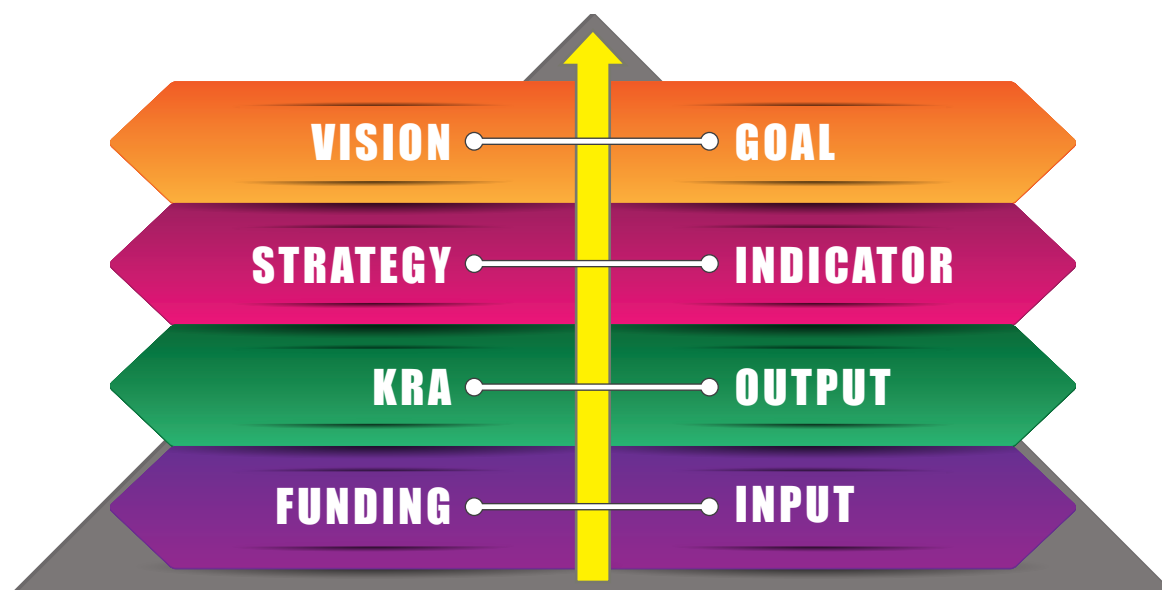
The ESDP-TWG, will be responsible to provide oversight and direction over the implementation of the ESDP. The TWG will also monitor, evaluate and report periodically on four focus areas:

1. progress on, and achievement of, the indicators and respective annual targets outlined in the ESDP based on the Agencies' indicators and respective annual targets outlined in the ESDP (logframes, tables 4);
2. progress on, and achievement of the Key Result Areas and respective annual targets outlined in the ESDP based on the Agencies' Key Result Areas and respective annual targets outlined in the ESDP (logframes, tables 2);
3. funding and other resource requirements of the ESDP based on Budget Appropriations and actual funding levels, i.e., budget allocations, budget expenditures, and funding shortfalls (ESDP logframes, tables 1); *and*
4. governance, management and implementation of the ESDP.



6.1.1 M&E Framework

Figure 6.1. ESDP M&E Framework



To encompass all required items for M&E, the M&E framework is divided into four tiers for M&E and reporting & learning to be conducted throughout the duration of the plan. Based on the logframes in Part 3, the tiers are:

- Indicators
- Key Result Areas
- Investment
- Strategy

The agencies responsible for each of the logframes in Part 3 will be using the M&E Framework to conduct M&E and submit reports. The agencies and their respective logframes are listed in the table below:

Table 6.1: Sector Agencies and their Respective Logframes

Agency / Department	Logframe title
National Department of Education (NDoE)	i. Early Childhood Education ii. Pre-School Education iii. Primary Education iv. Secondary Education v. Technical High/Secondary Education vi. National Schools of Excellence (NSOE) vii. Flexible Open & Distance Education (FODE) viii. Vocational Education & Training (VET) ix. Inclusive Education x. Literacy Education Services (NLAS)
Teaching Service Commission (TSC)	xi. Teaching Service
Office of Library & Archives	xii. Library Services and Archives

Agency / Department	Logframe title
Department of Higher Education, Research, Science & Technology (DHERST)	xiii. Technical / Business Colleges & Polytechnic Institutes xiv. Agriculture & Specialised Colleges xv. Nursing Colleges xvi. Teacher Colleges xvii. Universities
PNG Science & Technology Secretariat (PNGSTS)	xviii. Research, Science, Technology & Innovation (RSTI)

6.2 Reporting of the ESDP

As required by the Departments of Treasury, Finance and DNPM, and the Public Finance Management Act (1995-2016-2019), reports on GoPNG funding and programme activities by government agencies are required to be submitted every quarter. It is anticipated that all agencies covered by this plan will assume and embrace M&E responsibilities of the ESDP by expanding the scope of their current quarterly and annual reports to include reports on the four focus areas of M&E and reporting.

Agencies will report in the formats for the ESDP through their ESDP-TWG member. They can also continue to use the existing reporting templates but may expand the templates to incorporate reports of the ESDP's four focus areas in M&E and submit in scheduled and non-scheduled meetings.

Table 6.2: Meeting and Reporting Schedule

MTDP IV Schedule	Month	ESDP Meeting Scheduled
	JAN	1 st ESDP-TWG Meeting 1 st ESDP-CU Meeting 1 st ESDP-SC Meeting
Leaders' Summit for previous year M&E	FEB	
1 st (SLOS) High Level Meeting- (review)	MAR	2 nd ESDP-TWG Meeting (planning) 2 nd ESDP-SC Meeting
Sector budget preparation for the following year	APR	3 rd ESDP-TWG Meeting (planning) 2 nd ESDP-CU Meeting
	MAY	
PIP Submissions	JUN	3 rd ESDP-CU Meeting 3 rd ESDP-SC Meeting
	JUL	4 th ESDP-TWG Meeting
	AUG	
	SEPT	5 th ESDP-TWG Meeting
	OCT	4 th ESDP-CU Meeting 4 th ESDP-SC Meeting
2 nd (SLOS) high-level meeting (Summit prep)	NOV	6 th ESDP-TWG Meeting
	DEC	

Annual reports are legislative requirements as per the Prime Minister and National Executive

Council Act, 2002 (Sections 22, 25 [b, f and j] and 28) and the Planning and Monitoring Act, 2016. These provisions will be enforced for this plan.

6.3 Learning from the ESDP

6.3.1 Evaluation, Special Impact Studies, Surveys and Research

The ESDP 2023-2027 will undergo two evaluations - mid-term and end-of-term evaluations (see table below and Appendix 3).

The Government, education agencies and development partners are to conduct evaluations, special studies, surveys and research to produce data relating to the outcome indicators of the ESDP. The ESDP- CU will liaise with all stakeholders, development partners and government agencies to facilitate the evaluations, surveys, research and impact studies.

Table 6.3: ESDP Evaluating and Reporting Timeline

EVALUATION OF ESDP TIMELINE		
Evaluation Type	Year (to conduct evaluation and report findings)	Responsible Agencies
Mid-term Evaluation	June 2025	External Evaluators / Independent studies All government agencies covered in this ESDP. Development Partners Researchers / Research Institutions
End-of-term Evaluation	December 2027 – March 2028	External Evaluators / Independent studies All government agencies covered in this ESDP. Development Partners Researchers / Research Institutions

6.3.2 Research and Surveys

Throughout the lifespan of this ESDP, it is expected that some research and population-based surveys will be conducted by implementing agencies and partners to further investigate specific issues and challenges experienced during implementation and monitoring.

Research and surveys will be focused on the general implementation and management of the ESDP and significant trends emerging from data collected through monitoring and the mid-term evaluation of indicators and Key Result Areas.

Selective research agendas specific to this ESDP will be developed in consultation with existing agencies' research committees to ensure research is aligned with the national education research agendas.

6.3.3 Baseline Surveys

Baseline data and data sources for most of the logframes (Part 3) will require further verification and validation.

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APPENDICES

Appendix 1: Summary of Responsibilities for Implementation at levels of Government

ESDP Implementation Responsibilities across the National Level of Government

National Level	Responsibilities
Ministry of Education	• School buildings/ infrastructure development plans from ECE to school of excellence and National High Schools • Implement plan for teacher positions and salary structures • Develop policies for different levels of schools and teachers' salaries and positions, including: • Qualification and Admission • Girls' participation in schools • Gifted children • Teacher upgrading and upskilling • Financial management policy • Teacher information management and audit and compliance policies • Monitoring and evaluation plan for PSIP & DSIP funds implemented for the education sector • Financial management plan • Program implementation plan • Program audit, Monitoring & Evaluation Plan
Ministry of Higher Education	• University and Colleges infrastructure development implementation plans • Tertiary student scholarships and travel arrangements • Tertiary student database development • Monitoring and evaluation plan for PSIP & DSIP funds implemented for the education sector • Financial management plan • Programme implementation plan • Programme audit, Monitoring & Evaluation Plan

Implementation Responsibilities across the Provincial Level of Government

Provincial Level	Responsibilities
Provincial	• To form Province School Restructuring Teams. • To form a provincial teaching position restructuring team • Ensure that DSIP and PSIP expenditures are consistent with ESDP To ensure that the work being undertaken utilising PSIP funds is consistent with approved regional provincial plans and, where appropriate, is eligible for Equity Fund support. • To form Provincial, District School Restructuring Teams • To prepare approved plans that provide detailed implementation schedules for the construction of buildings. This plan should be endorsed by the respective PEB. This will be based upon quotas provided by the National Department of Education

Provincial Level	Responsibilities
Provincial	• To enhance teacher upskilling and upgrading partnership enhancement program within the province • Support the establishment of special schools for gifted children • To work with communities to establish ECE Institution • Support the work of monitoring officers, including inspectors • To enhance partnership with TSC and provinces for teachers undergoing upgrade and upskilling programmes. • The delivery of a suite of in-service modules to be used for teachers in schools at all levels of the system. • To provide logistical support for NIST and PIST week activities • Regular consultations with key partners on inclusive education • Provide detail information for Provincial Literacy Plan development • Support OOSC Back-Into-School roll-out program into rural and remote communities • Provincial Literacy Coordinator position re-established

ESDP Implementation Responsibilities across the District & Local Level of Government

District/ LLG	Responsibilities
District/ LLG	• Establishment of the Remote School Improvement Unit • To make sure schools are administered effectively and functioning • Assist schools to implement equity policies and interventions ➢ School boards support and implement policies related to equity issues and interventions ➢ To budget EFG money on textbooks and other teaching materials for schools. ➢ To accommodate GTFS functions • To review and draft provincial education act with wider consultation with DoE • To support training on plans and new policy initiatives • To identify schools for 1-6-6 restructure implementation • To accommodate decentralised payroll functions and personnel • To support the collection of data and information • To support new initiatives of electronic means of data collection • To support infrastructure development ➢ Assist school on development of SLIP • To facilitate the transport of curriculum materials from district centers to schools. • To support inspections of remote schools • To identify potential inspectors • To assist BMP development in schools • To support inspections of remote schools

District/ LLG	• Submit a list of schools and teachers appointed to multi-grade and disadvantage schools each year • Create or abolish teaching positions • Plan and budget for teachers' salary and leave fares • To endorse school leaders and BOM on school leadership training • To identify teachers to undertake upgrade programmes in accordance with approved plans. ➤ Identify suitable candidates for preschool teacher training ➤ To support training for principals and Division of Education officers. ➤ Training of staff on library and archival skills • Engage and assist in OOSC interventions. ➤ To establish OOSC Back-Into-School programme per Wards per LLGs ➤ Literacy Training of Trainers needs analysis carried out in Wards or LLGs • To develop plans to introduce NC courses in Vocational Centres • To identify secondary schools and vocational centers to be twinned • To identify vocational centers to offer National Certificate courses • To introduce academic programme options within Vocational Centres • To ensure that their district has one vocational centre
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Appendix 2: M&E Reporting Templates

TIER 1: Indicators Framework					
Level	Indicator	Baseline (Year)	Data Source and Method of Data Collection	Reporting Frequency	Responsible Agency
Input/Output/ Outcome/Impact					

TIER 2: Key Result Areas Framework					
Deliverable Description	Annual Planned Key Result Areas	Baseline (Year)	Actual Deliverable	Data Source and Method of Data	Responsible Agency

TIER 3: Investment Framework					
Investment programme title	Annual Budget	Baseline (& Year) of Actual Annual Budget Allocation / Warrant Released	Actual Annual Budget Allocation / Warrant Released	Data Source and Method of Data	Responsible Agency

TIER 4: Strategy Framework		
Strategy	Strategic Plan/policy Ref	Commentary on Strategy (Review/Accomplishment/Failure)

Appendix 3: ESDP Evaluation Guide for Mid-term and End of Term Review

These evaluations will have to be conducted by expert external evaluators focusing on:

- the goal of the ESDP 2023-2027;
- progress towards the goals of each of the log frames;
- whether significant progress has been made on the outcome and impact indicators and related targets;
- whether significant progress has been made on the Key Result Areas and related targets;
- funding the implementation of the Plan and its investment program;
- worth of the ESDP 2023-2027 or sector planning and sector plans (cost-benefit, cost-effectiveness, cost-efficiency studies);
- implementation, management and governance systems and processes;
- identifying gaps and implementation constraints, and recommending solutions; and
- identifying potential or new priorities for the next sector plan.



School Children at Bereina, Central Province



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