

DEPARTMENT OF HIGHER EDUCATION RESEARCH SCIENCE AND TECHNOLOGY

NATIONAL HIGHER AND TECHNICAL EDUCATION PLAN 2021 - 2030



A vibrant Higher and Technical Education System that is innovative in responding to and sustaining national development aspirations in the age of knowledge economy.



Department of Higher Education, Research, Science and Technology

NATIONAL HIGHER AND TECHNICAL EDUCATION PLAN 2021-2030

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MINISTER'S FOREWORD



As the Minister responsible for Higher Education, Research, Science and Technology (HERST) I have great pleasure in introducing you to the homegrown **National Higher and Technical Education Plan 2021-2030 (NHTEP)**. The Plan provides the strategic policy direction to achieve Papua New Guinea's national development and political aspirations embedded in the Marape Manifesto, Loloata Outcomes 2019 and Social, Law & Order Sector (SLOS) Strategic Framework 2019-2022 which are aligned to the PNG Vision 2050, Development Strategic Plan 2030, and the Medium

Term Development Plan III (MTDP III) 2018-2022, paving the way for a major transformation and unification in the higher and technical education in an age of knowledge economy.

Access to Quality education has been a major policy legacy issue and political challenge in Papua New Guinea (PNG). The introduction of the Tuition Fee Free (TFF) Education Policy triggered a steady increase in school leavers and secondary schools. Since then my Ministry has been facing the challenge of absorbing increasing student population and meeting new and improved infrastructure requirements to meet the increasing supply and demand pressures. Recent NEC Decisions demonstrate strong Government support for the higher and technical education reforms including new investment in infrastructure spending for polytechnics and technical colleges. Conversely the TFF policy situation has also created positive opportunities for private higher learning institutions to absorb those students who missed out on placements. Very positive signs have been conveyed from private sector and industry leaders welcoming the recent higher and technical education reforms and the renewed focus on quality and regulatory compliance. The renewed focus on quality and compliance underpins confidence in the sector as well as the opportunity to eradicate recent past trends by rogue private sector operators offering bogus qualifications at exorbitant fees and compromising quality.

While the prospects for economic development remain bright from increasing economic activities in the resource sector, the demand for quality skilled labour is also significant. Since the commencement of the first LNG project, PNG has lost almost K2 billion per annum through remittance from overseas skilled workers, often employed at the lower end of the National Qualification Framework.

Furthermore, the global environment has changed dramatically with digital technology and since December 2019, the global Covid-19 pandemic. Adaption to these global changes will continue to shape and influence higher and technical education development.

Faced with the changes in internal and external environments, I am more than determined to realign policy directions that will shape the higher education sector with quality policy and legislative arrangements available for the higher and technical education sector that will then generate and enhance teaching and learning and research and development. This policy direction will further strengthen strategic partnerships with the private sector, provincial governments, and development partners.

Given the increasing size of the Grade 12 School-Leaver population, it is my desire to see that an increasing number of young people have greater access to higher and technical education. The government will continue to create an enabling environment for private providers to grow the sector in ways that serve the social and economic interests of PNG.

Overall, the Ministry's direction is to develop a higher and technical education system that prepares graduates in response to development imperatives for the 21st century.



HON. Wesley Ora Raminai, MP

Minister for Higher Education, Research, Science and Technology

STATEMENT FROM THE SECRETARY



I am indeed excited to introduce to you the policy directions for the higher and technical education sector in PNG. This is a long-range sector policy direction aligned to all national development plans of the country to guide the current government and the next successive governments in their investment decisions for the higher and technical education sector.

The Department of Higher Education, Research, Science and Technology (DHERST) in consultation with key stakeholders, has identified five (5) main Goal Areas which provide the sector policy direction for achieving the political aspirations of the Government.

The higher and technical education sector is currently undergoing a major paradigm shift to *reform, transform and unify* the higher education system in PNG. The intended changes provide the first real opportunity since independence to address legacy issues of sector fragmentation, limited access, underperformance in quality assurance and the knowledge and skills relevance of student graduates. Under recent enabling legislation, these legacy issues are now being addressed under the five (5) Policy Goal Areas as follows:

- Goal Area 1: **Governance: Regulation and Management;**
- Goal Area 2: **Teaching and Learning;**
- Goal Area 3: **Research and Development;**
- Goal Area 4: **Resourcing; and**
- Goal Area 5: **Partnerships.**

The Goal Areas provide the policy framework for addressing current and future challenges for continued improvement and success in the sector.

The main objective for the *Governance: Regulation and Management Goal Area* aims to improve quality assurance, accountability and transparency in the sector. The *Teaching and Learning Goal Area* ensures Higher Education Institutions (HEIs) are equipped with quality Teaching and Learning resources including e-learning technologies that will enable access and participation by all. The *Research and Development Goal Area* aims to foster a productive research & development culture across the sector that supports the sector's contribution to national social growth and economic development. Under the *Resourcing Goal Area*, the sector intends to establish a coherent and sustainable funding system and a capable and competitive workforce to support the country's social and economic interests. The *Partnerships Goal Area* aims to develop strategic domestic and international partnerships that contribute to the development and sustainability of the sector.

The National Higher and Technical Education Plan (NHTEP) 2021-2030 also informs the development of the DHERST Corporate Plan. The Corporate Plan will provide further clarity and direction in the implementation of the NHTEP. With the anticipated challenges in funding, the Corporate Plan will ensure efficient use of resources, effective allocation of responsibilities and provide a framework for assessing progress according to the Policy Goal Areas.

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Dr. Francis Hualupmomi, Ph.D

Acting Secretary

Department of Higher Education, Research, Science and Technology

ACKNOWLEDGEMENTS

The NHTEP Committee acknowledges the invaluable contribution of the Management and Staff of the HEIs for their participation in the Higher Education Transition and Reform Regional Workshops held from June to October 2021. The feedback from these very well-attended workshops came from many parts of the Sector including State and Church Agency institutions in each of the following Higher Education sub-sectors: Public and Private Universities; Teacher Education Colleges; Nursing Colleges; and Technical Colleges. Feedback from all participating HEIs has been extremely helpful in shaping the preparation and validation of the NHTEP.

For their guidance and support in developing the plan the NHTEP Committee acknowledges the role of the Central Agency Departments of Prime Minister and National Executive Council; Treasury; Finance; National Planning and Monitoring. The following Line Agencies were consulted on the draft plan and the NHTEP Committee wishes to acknowledge their respective supporting roles in the transfer of the Higher Education Institutions to DHERST.

- National Department of Education (NDOE)
- National Department of Health (NDOH)
- Teaching Services Commission (TSC)
- Department of Agriculture and Livestock (DAL)
- The National Research Institute (NRI)
- Department of Labour and Industrial Relations (DLIR)
- Department of Transport (DoT)
- National Youth Development Authority (NYDA)

Sincere thanks to the Australian Department of Foreign Affairs and Trade (DFAT) for their continuing advisory support via the PNG Education Support Services (PNG-ESS) program under the Australia-PNG Partnership.

The NHTEP Committee acknowledges the invaluable contribution of the staff of DHERST under the leadership of Acting Secretary Dr. Francis Hualupmomi Ph.D. and the Members of the National Higher and Technical Education Board (NHTEB) for their guidance and advice.

EXECUTIVE SUMMARY

The National Higher and Technical Education Plan 2021-2030 (NHTEP) is a 10-year aspiration of the Higher and Technical Education Sector in Papua New Guinea.

NHTEP 2021-2030 is a successive sector plan encompassing a review of the NHTEP 2015-2024 and maintaining the convention of 10-year planning cycles with 5-yearly review. A new 10-year cycle commencing 2021 was considered necessary for a range of reasons, primarily to focus on the significant reforms brought about by the 2020 amendments to the *Higher Education (General Provisions) Act 2014* (HEGPA) and the transfer of HEIs to DHERST regulatory oversight in accordance with Higher and Technical Education Reform Act 2020. The NHTEP also incorporates elements of the Higher and Technical Education Strategic Implementation Plan 2017-2038 considered relevant to the 10-year planning cycle.

The NHTEP draws from the lead GoPNG policies notably PNG Vision 2050, PNG Development Strategy Plan (DSP) 2030, the Medium Term Development Plan (MTDP) III 2018-2022 and other relevant national plans and initiatives.

The NHTEP is designed to meet the legislative requirements of the HEGPA through the five (5) strategic Goal Areas namely; Governance: Regulation and Management; Teaching and Learning; Research and Development; Resourcing and Partnership. These Goal Areas contribute towards achieving the vision of a ***vibrant higher and technical education system that is innovative in responding to and sustaining national development aspirations in the age of knowledge economy.***

The mission ***is to educate and train innovative scientists, social entrepreneurs, and technicians to develop, translate and lead ideas responsibly in the age of the knowledge economy. In doing so, we generate wealth from our economic resources to advance social growth more sustainably and inclusively.***

Achieving the vision depends on the following critical success factors:

- Skilled Human Resources;
- Sufficient resourcing;
- ICT infrastructure;
- Robust QA systems;
- Collaborative partnership engagement both locally and abroad; and
- Effective HT&E Sector coordination.

The implementation of the NHTEP will be guided by the values derived from the Ethics and Values-based Leadership Capability Framework of the PNG public service: honesty, integrity, accountability, respect, wisdom and responsibility.

The NHTEP will be implemented by DHERST and its key partners and stakeholders. Successful implementation requires effective collaboration, enduring political support and stakeholder ownership.

STRATEGIC FORESIGHT

Strategic Policy Directions

MISSION

To educate and train innovative scientists, social entrepreneurs, and technicians to develop, translate and lead ideas responsibly in the age of the knowledge economy and consequently generate wealth from our economic resources to advance social growth more sustainably and inclusively.

VALUES

We believe in enhancing public value in the higher and technical education sector based on the values and principles as set out in the Higher Education (General Provisions) Act 2014 (as amended) that higher and technical education must:

- a. lead to a lively, just and self-reliant nation of forward and outward-looking citizens;
- b. enable citizens to be at peace with each other and their neighbours at home and abroad;
- c. equip citizens to improve and sustain the quality of life;
- d. strengthen the citizen's resolve to uphold their Christian principles;
- e. promote gender equity, performance and equality in participation; and
- f. promote and strengthen the county's rich cultural and environmental diversity.

In the implementation of the Plan the Values underpinning the Mission of the sector are augmented by the Ethics and Values-based Leadership Capability Framework of the PNG public service as referenced in the Executive Summary.

VISION

A vibrant higher and technical education system that is innovative in responding to and sustaining national development aspirations in the age of knowledge economy.

THE STRATEGIC POLICY CONTEXT

Strategic Thinking and Choices

Factors Influencing our Strategic Thinking:

Recent developments in the global and domestic environments have shaped the strategic thinking of the government in directing higher and technical education in PNG. The factors influencing the strategies of the NHTEP include:

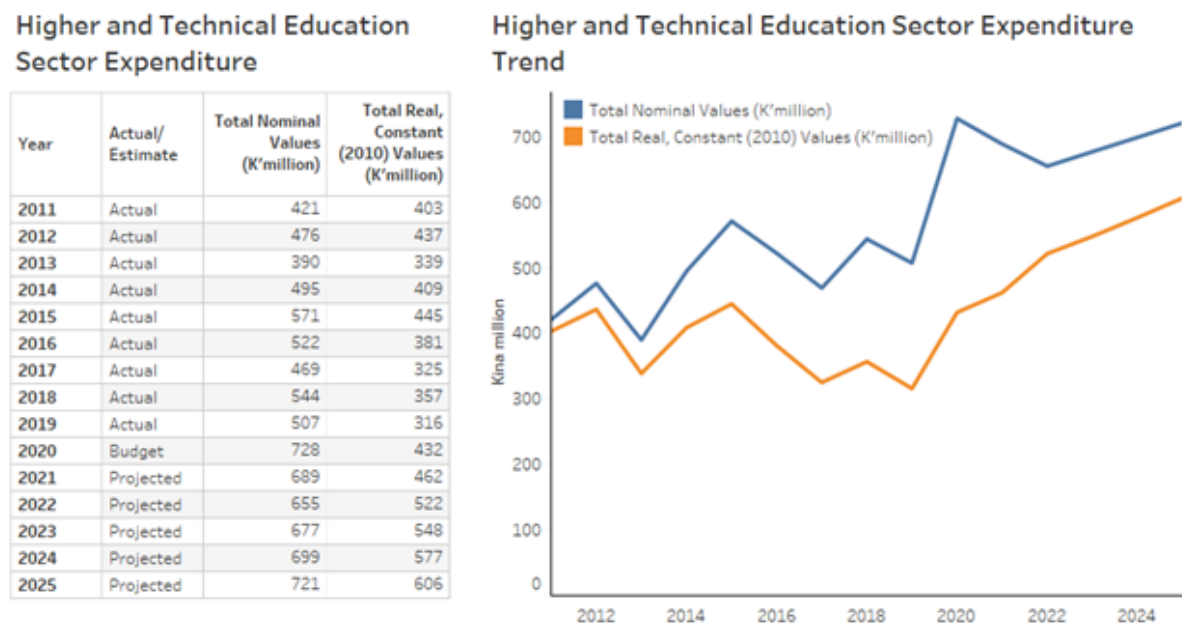
- Achieving Vision 2050 Pillar 1: Human Capital Development, Gender, Youth, and People Empowerment.
- Increasing growth in population exerting pressure on education. The general increase in population by 2.0% will steadily increase the student population. This will affect access to quality education.
- The introduction of the 'Tuition Fee Free' Education Policy has rapidly increased the number of secondary schools and the number of school leavers seeking post-secondary qualifications.
- Arresting the decline in quality education standards, in particular English, and Science, Technology, Engineering and Mathematics (STEM). The decline in these core subjects is worrisome.
- Service delivery through quality education. There is accumulating unmet demand for delivering quality education to districts.
- Digital technological transformation. The digital transformation will continue to impact teaching and learning in HEIs.
- Transnational communicable viral diseases. The recent surprise spread of COVID-19 viruses must increase our responsiveness to the delivery of higher and technical education in health emergency situations such as the current Covid-19 pandemic.
- Changing economic conditions. The changing global and domestic economic conditions will continue to affect investment in the higher and technical education sector. It is imperative that we also appreciate the political economy of investments in higher and technical education sector with respect to budget trends and economic capacity to sustain social growth and economic development. These factors have policy implications for this plan.

Political economy of higher and technical education

The higher and technical education sector plays a critical role in economic development through human capital development. Investment in human capital generates higher returns, which in turn, stimulate economic growth and development. As far as political economy of higher and technical education in PNG is concerned, investment in human capital depends largely on the capacity of the economy. Despite the COVID-19 pandemic, prospective growth in the resource sector remains positive. Hence, the implementation of the strategic policy direction of the higher and technical education sector is based on positive growth assumptions in the PNG economy.

Government expenditure in the higher and technical education sector over the past years has slightly increased as shown in Figure 1 below. In 2011, the total Government actual expenditure was K421 million compared to K507 million in 2019. Between 2011 and 2019, the highest actual expenditure was approximately K522 million in 2016.

Figure 1: Government Expenditure in the Higher & Technical Education Sector



Source: DHERST- based on National Government Budget & CPI trends

Although the sector has experienced an increase in Government spending, the real expenditure has declined when adjusted for inflation over the same period. If this trend continues, the sector will be faced with reduced purchasing power. In 2020, the Government budget for the sector was K728 million. If similar levels of increased expenditure are maintained in the medium-term, the current funding situation will improve.

Trends in higher and technical education

Higher and technical education in the 21st century is greatly influenced by digital technology transformation. HEIs have transformed significantly with the emergence of new technologies in teaching and learning. Institutions, academics and students have adapted to this change. This has generated and enhanced quality of education. While digital transformation is positive in many ways, there are growing challenges that Papua New Guinea needs to strategically manage.

In recent times, the COVID-19 pandemic has compelled policymakers and academic managers to design new approaches and methodologies to adapt to the 'new normal'. This includes providing quality education in a safe and secure learning environment.

¹ Real government expenditure is calculated using the Consumer Price Index as the deflator starting with the base year 2010.

In developing countries like PNG, the emergence of COVID-19 has opened the eyes of the government and HEIs to the importance and use of digital technology in teaching and learning.

While developed countries have advanced in the age of digital technology in the application of artificial intelligence in higher and technical education space, it will take quite some time for the developing countries including PNG to catch up.

Factors shaping Strategic Choices:

Consideration of the following overarching Government plans and policies have influenced our strategic choices and actions.

- PNG Vision 2050
 - Requires approximately 16, 000 graduates to be produced annually.
- Development Strategic Plan 2030
 - Tertiary institutions will require 45,000 student places by 2030.
 - Tertiary institutions will need to produce an increasing number of graduates to reach 17,500 a year by 2030.
- Medium term Development Strategy (MTDP) III 2018-2022
 - Number of graduates in field of Agriculture & Fisheries by 2022 - 1015
 - Number of graduates in field of business & management by 2022 - 9239
 - Enrolment Capacity of nursing colleges by 2022- 5000
 - Number of graduates in field of TVET by 2020 – 8,147
 - Enrolment capacity of technical and business colleges - 20,000
- Marape Manifesto – target
 - Create 30,000 tertiary education spaces in the next 10 years.
- Social, Law and Order Sector Strategic Framework 2019 - 2022
 - Human capital development and social security/protection is enhanced for all.
 - Graduates and youth as volunteers to be partakers in nation building to reduce high unemployment rates and integration into communities.
- NHTEP 2015-2024
 - The NHTEP 2015-2024 aims to achieve a number of student places that is consistent with a GER target of 11.46 percent by 2024, in order to ensure that PNG is on track to achieve its desired middle-income country status by 2030.
 - Ongoing policy and fiscal challenges exist in achieving the PNG Vision 2050 and the cascading targets set by DSP 2030, MTDP III 2018-2022, Marape Manifesto, and SLOS Strategic Framework 2019 – 2022.

Strategic Options

The NHTEP has been developed against the backdrop of the challenges captured in the strategic context.

Following wider stakeholder consultation, we have opted to focus on developing an adaptive higher and technical education system that is responsive to digital transformation and national development imperatives.

There is a need to increase both the supply and quality of skilled labour that is innovative and responsive to social and economic demand. We must close the policy mismatch between technicians, scientists and social entrepreneurs in driving social growth and economic development. We can do this by translating our natural resources into wealth for sustainable social growth and economic development. Creating a strategic equilibrium of human capital will generate higher returns on investment.

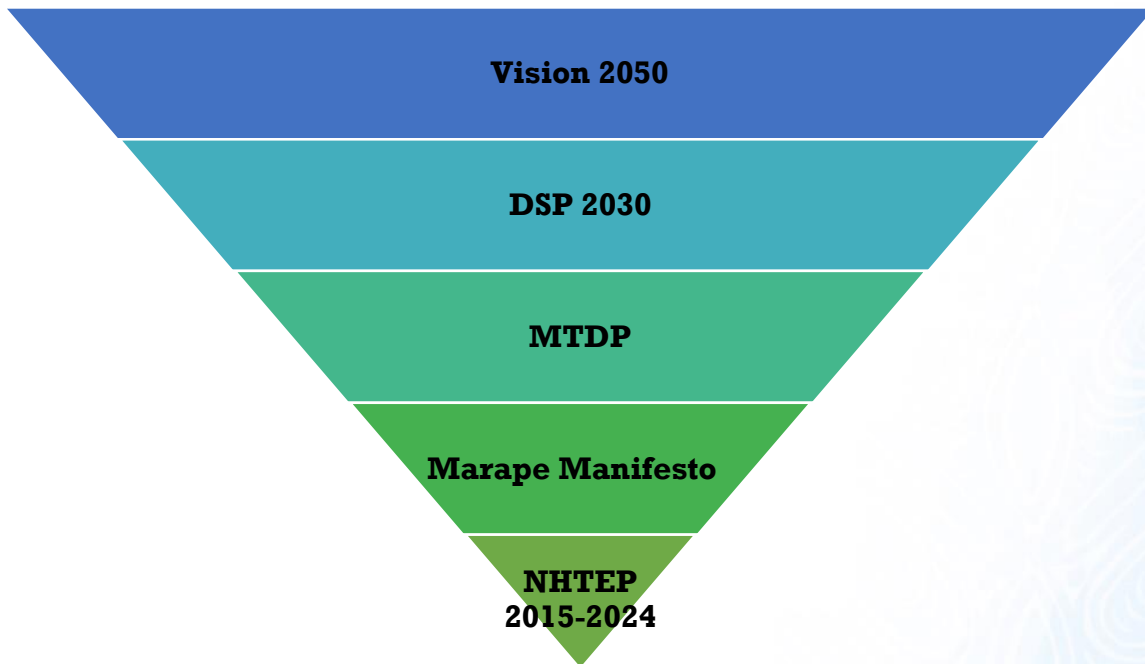
PNG's economy is functioning at the backdrop of a resource economy that can create and sustain wealth for growth and development. Potential growth and development requires greater investment in the training and education of a skilled labour force that meets national social and economic demands. This can be achieved through: enhancing a robust governance system in terms of regulation and management; teaching and learning; research and development; resourcing and partnership. We believe that this strategic option is the best 'winning strategy' that must be driven by the following critical success factors: ***skilled human resources; sufficient resourcing; ICT infrastructure; robust QA systems; collaborative partnership engagement both locally and abroad; and effective sector coordination, communications, monitoring and evaluation linked and networked across all HEIs.***

Strategic Planning Framework

This NHTEP has identified five (5) goal areas of strategic priority: governance (regulation and management); teaching and learning; research and development; resourcing; and partnership.

The NHTEP strategies are simple and realistic with clarity tied to budget in hierarchy and strategic priority geared towards achieving the vision of the NHTEP in a cascading sequential logic. The NHTEP 2015-2024 now transitions to the NHTEP 2021-2030 and provides the foundation framework for our strategic positioning and outlook.

The NHTEP has taken its cue from the National Planning Framework as required in the *Papua New Guinea Planning and Monitoring Responsibility Act 2016* and is briefly reflected below.



Strategic Plan Outline

The NHTEP is categorized into two (2) main sections: Strategic Foresight and Strategic Insight.

Strategic foresight captures the strategic political and policy directions which involve vision, mission, and strategic context. This also includes development phasing (growth model).

Strategic insight focuses on strategic goals areas, implementation plan, critical enablers, monitoring and evaluation and communication strategy.

STRATEGIC INSIGHT

GROUP TWO (2)

6. MANAGEMENT & STAFF OF TRANSFERRED HEIs

* KEY STEPS TO ADDRESS	ACTION	BY WHOM	WHERE	SUPPORT BY WHOM WHERE	FUNDING IF REQUIRED
1. APPOINTMENTS - PRINCIPALS	- BRIEFING COUNCIL	- AGENCY TRUSTEE - G.C - DHERST	END OF CONTRACT	AGENCY DHERST	GOV. COUNCIL DHERST
2. APPOINTMENT OF TEACHING & OTHER STAFF	GOV. COUNCIL	AGENCY TRUSTEE - G.COUNCIL - DHERST	END OF CONTRACT	AGENCY DHERST	G.COUNCIL DHERST
3. REAPPOINTMENTS	PERFORMANCE APPRAISALS	- HODS - PRINCIPALS - G	END OF CONTRACT	COLLEGE ADMIN	ADMINISTRATION
4. SHORT TERM CONTRACT EMPLOYEES	ADMINISTRATION - COLLEGE	PRINCIPALS & HODS	"WHEN THE NEED ARISES" & AVAILABILITY OF FUNDS	AGENCY DHERST	ADMINISTRATION

APPOINTMENT AND FUNCTIONS OF GOVERNING COUNCIL

APPOINTMENT	- PRINCIPAL (EX OFFICIO) - AGENCY - DHERST	- REPS - CHURCH COMMUNITY - NGO - DHERST - TGC - UNIVERSITY	- BEGINNING OF TERM -	- DHERST - AGENCY - TRUSTEE	COLLEGE ADMINISTRATION
EX OFFICIO		- SUB-COMM	AS PER THE ACADEMIC	- ADMIN - GO	ADMINISTRATION

Goal Area 1: GOVERNANCE: REGULATION AND MANAGEMENT

Globally, the higher and technical education landscape continues to change in response to various factors. As a result, responsible agencies and HEIs are adapting to these changes.

The passing of the HEGPA the Higher and Technical Education Reform Act 2020, and associated legislation provides DHERST and the sector with the legal framework that will drive the higher education reforms consistently with the changes both at the national and international level. Regulation, quality assurance, governance, and management of HEIs are key functions of any higher and technical education system.

In driving the sector forward, the regulatory function of DHERST and the National Higher and Technical Education Board (NHTEB) expands to include the Technical sub-sector, unifying a fragmented system and integrating those functions previously performed by other agencies of government to the existing Quality Assurance Framework.

DHERST and NHTEB will ensure that HEIs observe and adhere to the requirements in the National Standards. A cyclical approach is being adopted under the HEGPA to ensure compliance as well as ensure that only reputable and genuine HEIs offer higher and technical education in PNG.

There is also a focus on strengthening governance and management both at the agency and institutional level. Importantly, required mechanisms are in the process of being established by DHERST to monitor performance, accountability, and transparency in the management and operations of HEIs and their Governing Councils. The deployment of stronger governance, regulatory and management approaches protects the most important commodity of our higher education institutions - Quality.

Far-reaching Gender Equality and Social Inclusion (GESI) initiatives will be implemented under the HEGPA whereby HEIs must actively promote principles of gender equity and social inclusion. HEIs are required to have current and effective GESI policies that apply equally to students and staff. An assessment of the effectiveness of a HEIs GESI policies will form part of HEI's annual performance assessment and audit.

Strategic Objective:

To improve quality assurance, accountability, and transparency in the higher and technical education sector

Strategy 1:

Strengthen Corporate Governance at the Departmental level.

Actions	KPIs
<ul style="list-style-type: none"> • Design and implement a rolling Corporate Plan that aligns with the NHTEP. 	<ul style="list-style-type: none"> ○ Corporate Plan Milestones implemented by DHERST quarterly.
<ul style="list-style-type: none"> • Establish systems and processes within DHERST across all functions consistent with sector needs. 	<ul style="list-style-type: none"> ○ Policies, processes, and procedures are established and reviewed annually

Strategy 2:

Improve and strengthen accountability and transparency of the Governance and Management of HEIs

Actions	KPIs
<ul style="list-style-type: none"> • Establish required mechanisms to monitor the effectiveness and efficiency of the performance of Governing Councils 	<ul style="list-style-type: none"> ○ Stability within Governing Councils of HEI ○ Annual submission of governance and management report submitted to DHERST.
<ul style="list-style-type: none"> • Develop capacity-building programs in Governance, Financial Management, and Strategic Planning for Governing Councils and Management 	<ul style="list-style-type: none"> ○ All State supported institutions submitting and publishing annual audited financial and performance statements on websites
<ul style="list-style-type: none"> • Higher Education GESI Policy and Toolkit developed and implemented to facilitate female access to higher education; and experience a positive, safe and secure learning environment on campus. 	<ul style="list-style-type: none"> ○ HEI rollout of GESI Policy and Toolkit. ○ HEI mitigation, monitoring and audit processes in place to ensure the safety and security of female students on campuses.
<ul style="list-style-type: none"> • Effectively implement the new Governance arrangements in the HEIs according to amended HEGPA Establish a quality culture in HEIs 	<ul style="list-style-type: none"> ○ Periodic Governance KPI Review against Key Legislative Requirements under the amended HEGPA ○ Quality assurance frameworks embedded and continuous quality improvement KPIs bench-marked for each HEI sub-sector and in each HEI.

Strategy 3:

Support, guide, and mentor HEIs through a quality assurance/quality improvement cycle to meet the National Standards.

Actions

KPIs

-
- | | |
|---|---|
| <ul style="list-style-type: none">• Continuous Improvement of quality assurance mechanisms within DHERST to meet the international standards. | <ul style="list-style-type: none">○ Agency Reviews (both internal and external) for KPIs benchmarking purposes. |
| <ul style="list-style-type: none">• Reinforce HEIs compliance to Higher Education National Standards through DHERST regulatory support programs (TESAS, NOAS, NOSS, HELP) | <ul style="list-style-type: none">○ Successful NHTEP approval of registration and accreditation○ Number of HEIs registered and programmes accredited |
-



Goal Area 2: TEACHING AND LEARNING

The higher and technical education sector continues to face the challenge of increasing Grade-12 graduate outputs. Data shows that 68% of eligible students remain in the national admission pool annually due to limited student spaces in the HEI's.

There is a significant need to create more student places by expanding accredited course offerings via digital education service delivery. Such course offerings should articulate to accredited PNG-NQF qualifications; and should also include entry to 21st century skills for life-and-career competencies.

In addressing the issue of access, quality, and relevance, DHERST has invested in a robust and comprehensive quality assurance system and ongoing infrastructure development.

The DHERST Digitalisation Strategy aims at transforming the higher and technical education sector into a diverse and growing network of post-secondary HEI's that prepare students for application of knowledge at an advanced level. In the next 10 years, the focus will be to maximise the digital learning and teaching space. The digitalisation roll-out to Provinces and the 89 Districts will provide an e-learning and e-teaching platform that is accessible to all students. Successful delivery of digital education services requires significant capacity development and adaption in teaching and learning processes to ensure people-led rather than technology-led innovation and transformation.

Strategic Objective:

HEIs are equipped with quality Teaching and Learning resources including e-learning technologies that will enable and enhance participation by all.

Strategy 1:

Ensure Access to Equitable, Affordable quality higher and technical education and training

Actions	KPIs
<ul style="list-style-type: none"> • Ensure HEIs have the capacity to establish technology and the hard and soft infrastructure to deliver programs using ICT or with minimal resources 	<ul style="list-style-type: none"> ○ Number of HEIs connected to Higher Education Management Information System (HEMIS). ○ Number and value of ICT infrastructure constructed or rehabilitated. ○ Number of ICT staff trained.
<ul style="list-style-type: none"> • Ensure Teaching and Learning infrastructure is benchmarked against QA Standards. 	<ul style="list-style-type: none"> ○ Implementation progress of Teaching and Learning Infrastructure maintenance and rehabilitation plans
<ul style="list-style-type: none"> • Ensure all HEIs have access to digital and e-learning environment 	<ul style="list-style-type: none"> ○ Coverage (%) of HEIs delivering accredited training through online platforms

<ul style="list-style-type: none"> • Ensure programmes are industry-driven 	<ul style="list-style-type: none"> ○ Number of programs nationally accredited and internationally recognized
<ul style="list-style-type: none"> • Increase access through the establishment of new polytechnics, new technical colleges 	<ul style="list-style-type: none"> ○ New National Polytechnic Institutions established as per the Technical Institute Development Plan (TIDP) ○ New technical Colleges established in provinces that do not currently have one as per TIDP
<ul style="list-style-type: none"> • Increase access through the establishment of Centers of Excellence (CoEs) 	<ul style="list-style-type: none"> ○ Number of CoEs established, networked and linked across each HEI sub-sector.
<ul style="list-style-type: none"> • Grow the access to loans and scholarships 	<ul style="list-style-type: none"> ○ At least 60% of eligible students receive scholarships or loan support by 2026 ○ Number of industry partners providing industry funded HEI places on NOAS

Strategy 2:

Ensure PNG National Open University (PNGNOU) is established and rolled out to 89 Districts.

Actions	KPIs
<ul style="list-style-type: none"> • Establish PNGNOU campuses in Districts through Provincial Governments 	<ul style="list-style-type: none"> ○ Number of PNGNOU campuses established and connected
<ul style="list-style-type: none"> • Increase access to PNGNOU campuses 	<ul style="list-style-type: none"> ○ Number of accredited NOU programs offered ○ Increased enrolments accessing NOU program delivery
<ul style="list-style-type: none"> • PNGNOU to partner with FODE 	<ul style="list-style-type: none"> ○ Number of FODE graduates enrolling in accredited PNGNOU programs

Strategy 3:

Ensure equality of access for suitably qualified students enrolled in available student places aligned to PNG international SDG commitments and SDG 4 indicators

Actions	KPIs
<ul style="list-style-type: none"> • Facilitate student enrolment through National Admission Pool 	<ul style="list-style-type: none"> ○ Number of students in the admission pool enrolled in accredited Technical Colleges ○ Number of eligible students enrolled in NOU campuses

<ul style="list-style-type: none"> • Increase access to student spaces through institution registration and program accreditation 	<ul style="list-style-type: none"> ○ Number of programs accredited ○ Number of Institutions registered
<ul style="list-style-type: none"> • Increase access for eligible Female Year 12 students seeking HEI placements 	<ul style="list-style-type: none"> ○ Increase the HEI Gender Parity Index from current 85% to 100% ○ Establish bench marked Female enrolment to completion rates
<ul style="list-style-type: none"> • Increase access for eligible Year 12 students from rural and remote areas and students with a disability status. 	<ul style="list-style-type: none"> ○ Increase Parity Indices for rural, remote and disability status enrolments by Province/District as measured by the National Online Application System (NOAS)

Strategy 4:

Growing the sector through Private HEIs

Actions	KPIs
<ul style="list-style-type: none"> • Facilitate access to the Higher Education Quality Assurance process and program accreditation for Private HEIs 	<ul style="list-style-type: none"> ○ Increase in the number of Private registered HEIs offering accredited programmes
<ul style="list-style-type: none"> • Promote private HEI adoption of and adherence to the PNG-NQF 	<ul style="list-style-type: none"> ○ Increase in the number of private HEIs aligning their programs to the PNG-NQF pathways.
<ul style="list-style-type: none"> • Promote and convert opportunities for public-private partnerships for teaching and learning 	<ul style="list-style-type: none"> ○ Number of partnerships MOUs signed. ○ Number of MOU's converted to public private investment and/or co-funding initiatives
<ul style="list-style-type: none"> • Facilitate incentives for private HEIs to deliver targeted National Skills priorities 	<ul style="list-style-type: none"> ○ Number of private HEI's delivering priority programs annually



Goal Area 3: RESEARCH AND DEVELOPMENT

Research, Science, and Technology is an integral part of the higher and technical education sector and plays important roles in the overall prosperity of any developing country.

Successful scientific research requires institutions that can fund and guide research by identifying important problems, assembling research teams, and training future scientific leaders.

Coordination and distribution of Government funding including research grants for Research Bodies, Universities, and HEIs through an effective project management approach are essential to research and development. Incentives and Research Scholarships provide a way forward in encouraging individuals to engage in research, science and technology, and development.

The Department will work in collaboration with the PNG Science and Technology Council Secretariat (PNG-STCS), Research Bodies, Universities, and HEIs to implement the National Research Agenda (NRA) – an initiative of PNG-STCS as stipulated in the *Papua New Guinea Science and Technology Council Act 1992*.

Strategic Objective:

Foster a productive research & development culture across the higher and technical education sector that supports the sector’s contribution to national social and economic development.

Strategy 1:

Develop effective coalitions between DHERST, HEIs, Research Bodies and PNG-SRST (to attract global R&D funds)

Actions	KPIs
• Coordinate R&D financing proposals with key industry groups	○ Installation of fit-for-purpose R&D MIS
• Develop international industry and research partnerships	○ Tracer-studies of R&D Papua New Guineans scholarship recipients
• Facilitate collaboration with industry sectors & Research Bodies	○ Installation of fit-for-purpose R&D MIS
• Link and coordinate the core R&D with the core business of other areas	○ Tracer-studies of R&D Papua New Guineans scholarship recipients

Strategy 2:

Develop and support the research, science, and technological capacity of HEIs

Action	KPIs
• Facilitate capacity development with international institutions	○ Installation of fit-for-purpose R&D MIS
• Improve and develop research infrastructure	○ Tracer-studies of R&D Papua New Guinean scholarship recipients
	○ Improved and sustained research infrastructure

<ul style="list-style-type: none"> ● Facilitate capacity development with international institutions 	<ul style="list-style-type: none"> ○ Installation of fit-for-purpose R&D MIS
<ul style="list-style-type: none"> ● Encourage R&D through targeted scholarships and partnership programs. 	<ul style="list-style-type: none"> ○ Number of scholarships for R&D and MOU/MOP/MOA establish
<ul style="list-style-type: none"> ● Distribution/Allocation of scholarships based on informed assessment 	<ul style="list-style-type: none"> ○ Increased research scholarships
<ul style="list-style-type: none"> ● TESAS policy review 	<ul style="list-style-type: none"> ○ Updated TESAS Policy
<ul style="list-style-type: none"> ● MOU with NRI for development of skills to do R&D, publications 	<ul style="list-style-type: none"> ○ NRI MOU established
<ul style="list-style-type: none"> ● Undertake Graduate Tracer Study 	<ul style="list-style-type: none"> ○ Graduate Study Report



Goal Area 4: RESOURCING

Papua New Guinea has seen a surge in the demand for higher and technical education over the last 10 years due to the introduction of the Tuition Fee Free (TFF) Education Policy in 2012 and the high rate of population growth. In contrast, the sector has been unable to keep pace and provide sufficient student places to meet the demand. The rapid growth in total student numbers has been faster than the nominal growth in central government expenditure, resulting in declining real central funding per student over time. To meet the growth demand, the sector must find innovative ways to augment core government funding. The introduction of sustainable revenue streams such as the Endowment Fund and the Funding model have the potential to increase the benefits to the sector through improved coordination and accountability of funds received and disbursed.

The development of human resource capacity is essentially tied to financing to implement the reforms in the higher and technical education reforms. A capable workforce is needed to progress the visions of the sector with DHERST as the coordinating agency and supported by the HEIs. Institutions are fundamentally responsible for knowledge creation and sharing and developing the high level skills required. Coupled with sufficient modernized facilities and resources, the sector would be able to produce the required human resources manpower for the country. Whilst some elements of the NHTEP are aspirational the Plan is primarily pragmatic in that DHERST's accompanying Sector Plan and Budget (2022-2026) is based on affordable and reliable funding projections.

Over the period 2018-2021 female participation increased across all institutional types relative to the number of female Grade 12 graduates selected for HEI enrolment. These are positive trends lines. Key Performance Indicators (KPIs) for increasing both gender access and completion rates are shown in the forward plans for both the NHTEP 2021-2030 and the National Skills Development Plan 2021-2025.

Table 1: Female Participation by Higher & Technical Institutional Types, 2018-2021

	2018 aca yr (select.2017)			2019 aca yr (select.2018)			2020 aca yr (select.2019)			2021 aca yr (select.2020)		
	Total	Female	Female (%)	Total	Female	Female (%)	Total	Female	Female (%)	Total	Female	Female (%)
G12 School leavers	25,848	9,956	39%	26,731	10,326	39%	28,109	11,056	39%	27,426	11,335	41%
Selected candidates	8,085	3,229	40%	8,572	3,674	43%	9,427	4,119	44%	9,345	4,282	46%
Institutional type	Total	Female	Female (%)	Total	Female	Female (%)	Total	Female	Female (%)	Total	Female	Female (%)
University	2,919	1,159	40%	2,775	1,137	41%	2,767	1,115	40%	2,779	1,291	46%
Teacher College	1,249	573	46%	1,198	623	52%	1,490	818	55%	1,557	739	47%
Nursing College	226	154	68%	262	176	67%	230	159	69%	324	216	67%
Business College	1,185	475	40%	462	228	49%	533	288	54%	375	185	49%
Technical College	1,494	449	30%	1,510	459	30%	1,469	466	32%	1,517	490	32%
Other	1,012	419	41%	2,365	1,051	44%	2,938	1,273	43%	2,793	1,361	49%

Source: DHERST NOAS/NOSS Data, 2018-2021

Several initiatives will be undertaken to attract and retain qualified men and women to provide more education and employment opportunities for school leavers. These will include a better-coordinated approach to improve academic salaries and conditions. Professional development and training programs will be promoted through mutual partnership agreements that will be focused on twinning arrangements and overseas scholarships.

Strategic Objective:

To establish a coherent and sustainable funding system and capable workforce to support H&TE developments.

Strategy 1:

To establish a coherent and sustainable funding system

Action	KPIs
<ul style="list-style-type: none"> • Design and implement a Funding model for the H&TE sector 	<ul style="list-style-type: none"> ○ Approved Funding Model by NEC.
<ul style="list-style-type: none"> • Support the diversification of revenue streams within H&TE. 	<ul style="list-style-type: none"> ○ Increased number of revenue streams for H&TE.
<ul style="list-style-type: none"> • Establishment of H&TE Endowment Fund. 	<ul style="list-style-type: none"> ○ H&TE Endowment Fund is approved by NEC and operational ○ Proportion of HEIs receiving endowment funds.
<ul style="list-style-type: none"> • Effective management and roll-out of Higher Education Loan Program. 	<ul style="list-style-type: none"> ○ Full disbursement of the loan.

Strategy 2:

To develop a capable workforce in the H&TE sector

Action	KPIs
<ul style="list-style-type: none"> • Support the development of initiatives to attract and retain staff in the H&TE sector. 	<ul style="list-style-type: none"> ○ Improved academic staff salaries and conditions for the H&TE sector.
<ul style="list-style-type: none"> • Design and implement policies and procedures to enhance professional development in the H&TE sector (academic, technical, and professional). 	<ul style="list-style-type: none"> ○ Improved workforce number sufficient to support PNG's developmental needs.
<ul style="list-style-type: none"> • Develop a Higher Education Gender Equality and Social Inclusion (GESI) Policy and toolkit 	<ul style="list-style-type: none"> ○ Policy developed ○ Rollout of the GESI toolkit ○ Steady improvement in female enrolment and graduation ratios to 50%

Strategy 3:

Roll out of the digitalisation in the higher and technical education sector

Action

KPIs

-
- | | |
|---|---|
| <ul style="list-style-type: none">• Ensure adequate funding and infrastructure is secured for digitalisation and support systems roll-out | <ul style="list-style-type: none">○ Successful roll-out of digitalisation and support systems○ Increase the standard and quality of Female dormitory○ On-campus facility improvement for Persons Living with Disability |
|---|---|
-



Goal Area 5: PARTNERSHIP

Partnerships in the higher and technical education sector are important to strengthen the inter-linkages between the HEIs, Government, and Industry, both at the domestic and international level. The sector in PNG continues to benefit from strategic partnership engagements. Development Partners, Provincial Governments, and the corporate sector primarily in the mineral and hydrocarbon subsector have generously supported through scholarships, infrastructure, institutional development, internships, and research.

Continuing and effective dialogue, coordination and collaboration between these key partners and stakeholders is essential. Under the recent enabling legislation for higher and technical education sector reform, opportunities exist for partnering on innovative co-funding and co-investment initiatives. Partnership strengthening across mutual investment outcomes are capable of transforming sector financing and resourcing.

Strategic Objectives:

Domestic and International stakeholders are effectively engaged in the development of a reformed higher and technical education system.

Strategy 1:

Foster interactions between stakeholders to develop strategic policies and innovative programs that benefit all parties.

Action	KPIs
<ul style="list-style-type: none"> • Establish policies and programs to support partnership initiatives at the national and sub-national levels. 	<ul style="list-style-type: none"> ○ Number of strategic partnership programs at the national and sub-national levels.
<ul style="list-style-type: none"> • Foster partnerships with industry for capacity building in curriculum development, scholarships, infrastructure, internships, apprenticeship, labour market analysis, and ongoing support. 	<ul style="list-style-type: none"> ○ Number of capacity-building programs and initiatives between HIEs and industry.
<ul style="list-style-type: none"> • Development and strengthening of partnership arrangements with regional & international partners. 	<ul style="list-style-type: none"> ○ Number of new and existing partnership arrangements. ○ Number of regional and international higher & technical education forums.

STRATEGIC ENABLERS

Strategic enablers include the following:

- Relevant and necessary legislation (legislative frameworks) and policies;
- Skilled Human Resources;
- Sufficient resourcing;
- ICT infrastructure;
- Robust QA system;
- Collaborative partnership engagement both locally and abroad; and
- Effective higher education sector coordination.

These enablers will drive the successful implementation of the NHTEP.

MONITORING AND EVALUATION

The NHTEP will be periodically monitored and evaluated through a systematic approach. A NHTEP Performance Monitoring & Evaluation Framework and Annual Management Action Plan is currently a work in progress.

Of necessity, the monitoring and evaluation of any ten-year plan that is partly aspirational, must track activity status as plans evolve (or not) from aspirational to realistic. To guide this process over the first three years of the NHTEP implementation, each meeting of the NHTEB will include a standing agenda item on the review and revision of currently aspirational elements of the NHTEP. Proposed revisions tabled for NHTEB consideration will reflect more specific action statements; and suitably bench-marked key performance indicators (KPIs) identifying measurable and realistic KPI improvement, in terms of precise results and time-frame for achievement.

The accumulated review and revision outcomes from NHTEB meetings will be incorporated into a progressively updated NHTEP Performance Monitoring & Evaluation Framework and Annual Management Action Plan.

5 YEAR SECTOR PLAN & BUDGET

The NHTEP is inextricably linked to DHERST's 5 Year Sector Plan and Budget process. The 2022-2026 Sector Plan and Budget is a rolling Budget 9-Program design updated and adjusted annually based on each preceding year's progress and overall planning and budgetary performance. The Goal Areas of the NHTEP link directly to the 9-Program Areas of the Sector Plan and Budget. The 9-Program Areas are:

1. **Main Program Budget: Development of Higher and Technical Education**
2. **Tertiary Education Management Co-ordination**
3. **Tertiary Scholarships & Student Loans**
4. **Higher Institutions Program – Universities**
5. **Technical & Business Education**
6. **Teacher Colleges**
7. **Nursing Practice Education**
8. **Agriculture & Miscellaneous Colleges**
9. **Research & Innovation**
10. **Cross-cutting/Multi-Program**

A draft Medium Term Performance Monitoring Framework for the Higher and Technical Education Sector Plan and Budget, (2022-2026) is a work activity in progress listed as an Action and KPI under Goal 4 Resourcing.

COMMUNICATION AND REPORTING

Access to information especially higher and technical education is important. The NHTEP must be effectively communicated to stakeholders and government through a variety of communication modes. This involves developing efficient and effective communication and reporting strategies so that every citizen is informed of the NHTEP and has the opportunity to participate in nation-building.

IMPLEMENTATION PLAN

The Implementation Plan provides a summary of Goal Areas, Strategic Objectives, Actions and Desired Results over a 10 year period. Of the 47 Actions, 10 have been identified (highlighted) as priority actions for immediate implementation.

Goal Area 1: Governance: Regulation and Management												
Strategic Objective: To improve quality assurance, accountability, and transparency in the higher education sector.												
Action	Actor(s)	Desired Result(s)	Timeframe (Year)									
			0	1	2	3	4	5	6	7	8	9
Strategy 1: Strengthen Corporate Governance at the Departmental level.												
Design and implement a rolling Corporate Plan that aligns with this Strategic plan.	DHERST	Development & implementation of a rolling Corporate Plan										
Establish systems and processes within DHERST across all functions to be consistent with sector needs.	DHERST	Systems & processes within DHERST established										
Strategy 2: Improve and strengthen accountability and transparency of Governance and Management of HEIs.												
Establish required mechanisms to monitor the effectiveness and efficiency of the performance of Governing Councils.	DHERST / HEIs	Mechanism established to monitor performance of HEIs Governing Councils										
Develop capacity-building programs in Governance, Financial Management, and Strategic Planning for Governing Councils and Management	DHERST / HEIs	Capacity of HEI Governing Councils built-in governance, financial management, and strategic planning										
Higher Education GESI Policy and Toolkit developed and implemented to facilitate female access to higher education; and experience a positive, safe and secure learning environment on campus.	DHERST / HEIs	Increased female participation in the higher and technical education sector										
Effectively implement the new Governance arrangements according to the amended HEGPA in HEIs	HEIs	Implementation of Governance Manual										
Establish a quality culture in HEIs	DHERST / HEIs	Quality Culture established in HEIs										
Strategy 3: Support, guide, and mentor HEIs through a quality assurance/quality improvement cycle to meet the National Standards.												
Continuous Improvement of quality assurance mechanisms within DHERST to meet the international standards.	DHERST / HEIs	Improved quality assurance mechanism within DHERST										
Reinforce compliance by HEIs to meet National Standards by using current DHERST programs (TESAS, NOAS, NOSS, HELP).	DHERST / HEIs	HEIs meeting National Standards through DHERST programs – TESAS, NOAS/NOSS, HELP)										

Goal Area 2: Teaching and Learning											
Strategic Objective: HEIs are equipped with quality Teaching and Learning resources including E-learning technologies that will enable participation by all.											
Action	Actor(s)	Desired Result(s)	Timeframe (Year)								
			0	1	2	3	4	5	6	7	8
Strategy 1: Ensure Access to Equitable, Affordable quality higher and technical education and training.											
Ensure HEIs have the capacity to establish technology and the hard and soft infrastructure to deliver programs using ICT or with minimal resources	DHERST	ICT capacity in terms within HEIs established									
Ensure Teaching and Learning infrastructure is benchmarked against QA Standards.	DHERST	Teaching and Learning infrastructure benchmarked against QA standards									
Ensure all HEIs have access to digital and e-learning environment	DHERST / HEIs	Usage of digital & e-learning platforms in all HEIs									
Ensure programmes are industry-driven	DHERST / HEIs / PNG Business Council	Graduates absorbed by Industries in the Labour Market									
Increase access through the establishment of new polytechnic, new technical colleges	DHERST / HEIs	Increased access to quality higher and technical education									
Increase access through the establishment of Centers of Excellence (CoEs)	DHERST / HEIs	CoEs established and improved access to higher and technical education									
Grow the access to loans and scholarship	DHERST	Increased student access to quality higher and technical education									
Strategy 2: Ensure PNG National Open University (PNGNOU) is established and rolled out to 89 Districts.											
Establish PNGNOU campuses in Districts through Provincial Governments	DHERST / DPLGA	PNGNOU Campuses established in the 89 Districts through Provincial Governments									
Increase student access to PNGNOU campuses	DHERST	Increased access in PNGNOU Campuses									
Open University to partner with FODE	DHERST / NDOE	Partnership established with NDOE & FODE Centres									
Strategy 3: Ensure suitably qualified students enrolled in available student places in PNG.											
Facilitate student enrolment through National Admission Pool	DHERST	Student enrolment facilitated through the National Admission Pool									
Increase access to student spaces through institution registration and program accreditation	DHERST	Programmes accredited and institutions registered									

Strategy 4: Growing the sector through Private HEI's.			
Facilitate access to the Higher Education Quality Assurance process and program accreditation for Private HEIs	DHERST / Private HEIs	Institutional Registration & Programme Accreditation for Private HEIs	
Promote private HEI adoption of and adherence to the PNG NQF	DHERST / Private HEIs	Private HEIs embracing PNGNQF	
Promote and convert opportunities for public-private partnerships for teaching and learning	DHERST / HEIs	Public-Private Partnerships facilitated & established	
Facilitate incentives for private HEIs to deliver Government (through DHERST) targeted or priority programs	DHERST / Private HEIs	Incentives provided for Private HEIs	

Goal Area 3: Research and Development											
Strategic Objective: Foster a productive research & development culture across the higher and technical education sector that supports the sector’s contribution to national social and economic development.											
Action	Actor(s)	Desired Result(s)	Timeframe (Year)								
			0	1	2	3	4	5	6	7	8
Strategy 1: Develop effective coalitions between DHERST, HEIs, Research Bodies and PNGSTCS (to attract global R&D funds).											
Coordinate R&D financing proposals with key industry groups.	DHERST	R&D financing proposals with key industry groups coordinated									
Develop international industry and research partnerships.	DHERST / HEIS / Research Bodies	Partnership developed with international industry									
Facilitate collaboration with industry sectors & Research Bodies.	DHERST	Collaboration with industry groups & Research Bodies facilitated									
Link and coordinate the core R&D with the core business of other areas.	DHERST / HEIS / Research Bodies	R&D linked to core business areas									
Strategy 2: Develop and support the research, science, and technological capacity of HEIs.											
Facilitate capacity development with international institutions.	DHERST / HEIs / Research Bodies	Capacity development opportunities with international institutions promoted.									
Improve and develop research infrastructure.	DHERST / HEIs / Research Bodies	Research infrastructure improved and developed									
Facilitate capacity development with international institutions.	DHERST / HEIs / Research Bodies	Partnership forged & capacity developed									
Encourage R&D through targeted scholarships and partnership programmes.	DHERST / HEIs / Research Bodies	R&D is encouraged through targeted scholarships and partnership programmes									
Distribution/Allocation of scholarships based on informed assessment	DHERST	Scholarships distributed and awarded									
TESAS policy review	DHERST	TESAS Policy reviewed									
MOU with NRI for development of skills to do R&D, publications.	DHERST / NRI	Annually publications of research									
Undertake Graduate Tracer Study.	DHERST	Graduate tracer study done & informed decisions									

Goal Area 4: Resourcing											
Strategic Objective: To establish a coherent and sustainable funding system and capable workforce to support higher and technical education developments.											
Action	Actor(s)	Desired Result(s)	Timeframe (Year)								
			0	1	2	3	4	5	6	7	8
Strategy 1: To establish a coherent and sustainable funding system											
Design and implement a Funding model for the H&TE sector.	DHERST	Sector funding model designed and implemented									
Support the diversification of revenue streams within Higher and Technical Education sector.	DHERST	Increased revenue stream into Sector									
Establishment of Higher Education Endowment Fund.	DHERST	Higher Education Endowment Fund established									
Effective management and roll-out of Higher Education Loan Program (HELP).	DHERST	HELP effectively managed									
Strategy 2: To develop a capable workforce in the the higher and technical education sector											
Support the development of initiatives to attract and retain staff in the H&TE sector.	DHERST / HEIs	HEIs staff satisfactorily remunerated and retained									
Design and implement policies and procedures to enhance professional development in the H&TE sector (academic, technical, and professional).	DHERST / HEIs	Governance mechanism for professional development designed and implemented									
Promote and convert opportunities for public-private partnerships for teaching and learning	DHERST	Effective partnerships established									
Strategy 3: Roll out of the digitalization across the higher and technical education sector											
Ensure adequate funding and infrastructure is secured for digitalisation and support systems roll-out.	DHERST	Adequate funding secured for digitalisation and support systems roll-out.									

Goal Area 5: Partnership

Strategic Objective: Domestic and International stakeholders are effectively engaged in the development of higher and technical education systems.

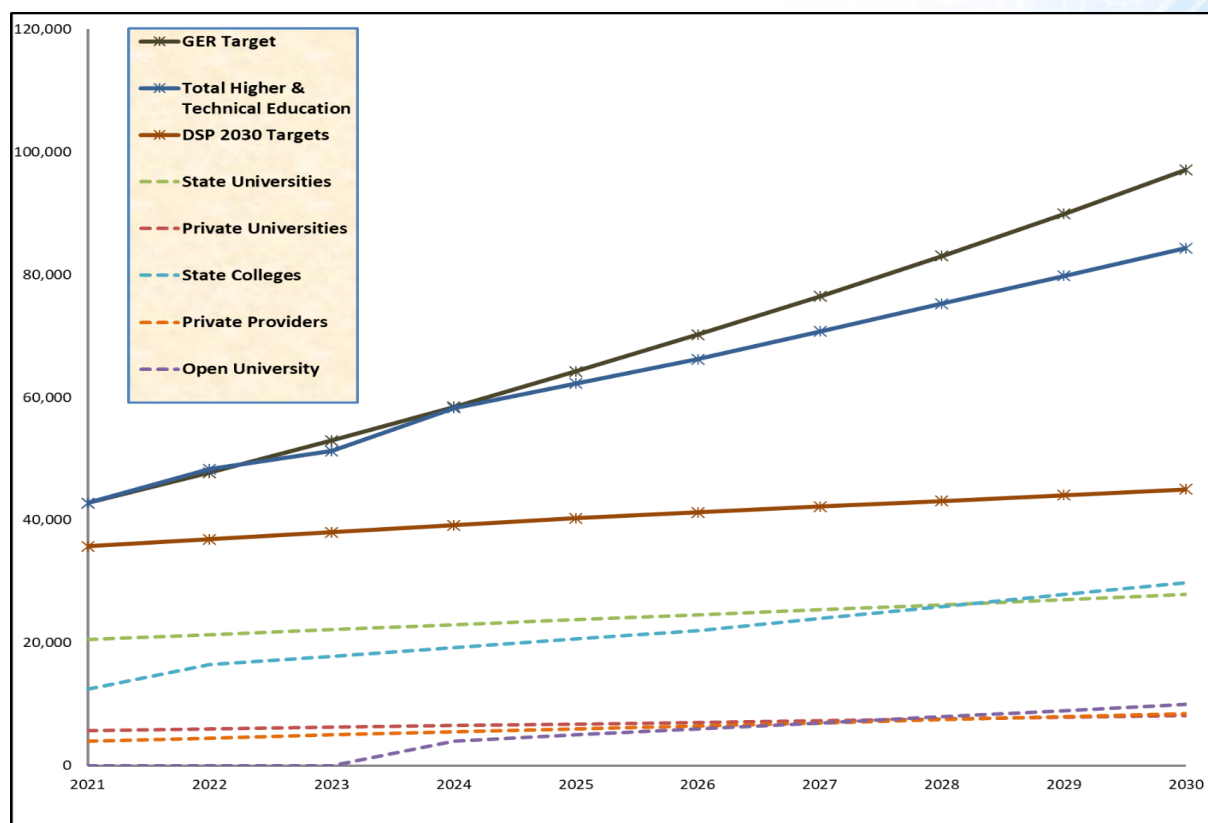
Action	Actor(s)	Desired Result(s)	Timeframe (Year)									
			0	1	2	3	4	5	6	7	8	9
Strategy 1: Foster interactions between stakeholders to develop strategic policies and innovative programmes that benefit all parties.												
Establish policies and programs to support partnership initiatives at the national and sub-national levels.	DHERST	Partnership governance mechanism established	█	█	█	█	█					
Foster partnerships with industry for capacity building in curriculum development, scholarships, infrastructure, internships, apprenticeship, labour market analysis, and ongoing support.	DHERST / PNG Business Council	Industry partnership promoted and supported	█	█	█	█	█	█	█	█	█	█
Development and strengthening of partnership arrangements with regional & international partners.	DHERST	Regional & International partnership developed and strengthened	█	█	█	█	█	█	█	█	█	█

STRATEGIC DEVELOPMENT PHASING PLAN

Higher and Technical Education Growth Model

In 2021, the total Higher and Technical Education enrolment is estimated to be 42,778. This is based on the enrolments of HEIs recognised by the DHERST. The DHERST National Registry of Institutions records 49 recognised HEIs. Of these 49 institutions, there are 8 Universities, 14 Teachers Colleges, 16 Technical Colleges and 11 Nursing Colleges. Other Private and Specialty Colleges include those specializing in specific fields of study such as maritime, fisheries, law, banking and business. In addition to HEIs registered on the DHERST National Registry, there are over 150 private training institutions registered previously through the National Training Council (NTC) now in the process of transferring to DHERST. Thus, the current total enrolment in the Higher and Technical Education Sector will increase once enrolment numbers of private colleges are determined as part of the reforms being undertaken.

Figure 2: Higher and Technical Education Growth Model



Source: Annual Survey of Institutions of Higher Education Reports 2011-2016, NSO & PNGDSP 2030

Table 2: NHTEP Projected H&TE student places targets 2021 to 2030 based on current GER

Student places	2021	2022	2026	2030
GER Target	42,778	52,998	70,206	97,079
PNGDSP 2010-2030 Student places target	35,740	36,880	41,250	45,050
NHTEP Target	42,779	48,869	66,544	84,333
<i>State Universities</i>	20,547	21,360	24,613	27,867
<i>Private Universities</i>	5,723	5,993	7,073	8,153
<i>PNG Open University</i>			6,000	10,000
<i>State Colleges</i>	12,509	17,016	22,358	29,813
<i>Private Colleges</i>	4,000	4,500	6,500	8,500

Source: Annual Survey of Institutions of Higher Education Report 2011-2016, NSO & PNGDSP 2030

The higher and technical education sector is faced with a massive challenge of creating access and improving the quality of learning. Sectors with critical shortage of highly skilled labour include health and medicine, nursing, teaching and technical skills.

The PNG Development Strategic Plan 2010-2030 and specific sector Development Plans express the aim of becoming a Middle Income Country by 2030. To reach this target requires the sector to achieve a Gross Enrolment Ratio (GER) of 15 percent to be consistent with the average GER attained by Middle Income Countries.

This means creating 66,544 places in the first 5 years and 84,333 places in the next 5 years to achieve the human resource development targets set out in the PNG Development Strategic Plan 2010-2030 and specific sector Development Plans. This is beyond aspirational.

Nevertheless, it is anticipated that the establishment of the National Open University will significantly increase the access to higher and technical education. The continued recurrent and development investment of the Government in the medium-term will improve infrastructure and other necessary resources capacity to accommodate the increase in enrolment. In addition, the growth in enrolment will be supported by the establishment of a unified Higher and Technical Education System, improved regulatory oversight and stronger partnerships with major development partners, civil society and the private sector.

Based on the projected college age population however, it is estimated that the current PNG GER is 4.27 percent. To attain a GER of 15 percent by 2030 is not feasible given forecast slower economic growth in the medium-term as a result of the Covid-19 pandemic and the significant level of investment required to meet this target by 2030. Thus, it is projected that by 2030 the GER should reach 7-8 percent, consistent with the more achievable NHTEP Target shown in Table 2. Achieving a GER target of 7-8 percent by 2030, the higher and technical education sector will create over 84,333 places by 2030.



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