

[NATIONAL HUMAN RESOURCE DEVELOPMENT PLAN TECHNICAL REPORT

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ACRONYMS

ADB	Asian Development Bank
APTC	Australian Pacific Technical College
ASBAE	Asia South Pacific Association for Basic and Adult Education
CEO	Chief Executive Officer
CMM	Conservation and Management measures
DFAT	Department of Foreign Affairs and Trade (Australia)
DoL	Department of Labour
DSPPAC	Department of Strategic Policy Planning and Aid Coordination
HACCP	Hazard Analysis and Critical Control Points
HIES	Household Income and Expenditure Survey
ICT	Information Communications Technology
ILO	International Labour Organisation
ISCO	International Standard Classification of Occupations
LLN	Language, Literacy and Numeracy
LMIS	Labour Market Information System
MALFFB	Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity
MIA	Ministry of Internal Affairs
MoE	Ministry of Education
MoET	Ministry of Education and Training
MoH	Ministry of Health
MYDST	Ministry of Youth Development, Sports and Training
NALLNF	National Adult Language, Literacy and Numeracy Framework
NER	Net Enrolment Rates
NGO	Non-Government Organisation
NHRDP	National Human Resource Development Plan
NSDP	National Sustainable Development Plan 2016-2030
OIE	World Organization for Animal Health (Office Internationale des epizooties)
OJT	On-the-Job Training
PICs	Pacific Island Countries
PMO	Prime Minister's Office
PSET	Post School Education and Training
SWOT	Strengths, Weaknesses, Opportunities, Threats
TAFE	Technical and Further Education
TPFU	Trade Policy Framework Update 2019
TVET	Technical and Vocational Education and Training
USP	University of the South Pacific
VAC	Vanuatu Agriculture College
VANSTA	Vanuatu Standardised Test of Achievement
VCCI	Vanuatu Chamber of Commerce and Industry
VCNE	Vanuatu College of Nursing Education
VIPAM	Vanuatu Institute of Public Administration and Management
VIT	Vanuatu Institute of Technology
VITE	Vanuatu Institute of Teacher Education

VMC	Vanuatu Maritime College
VNSO	Vanuatu National Statistics Office
VNTC	Vanuatu National Training Council
VPC	Vanuatu Police College
VQA	Vanuatu Qualifications Authority
VQF	Vanuatu Qualifications Framework
VUV	Vatu

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1. INTRODUCTION

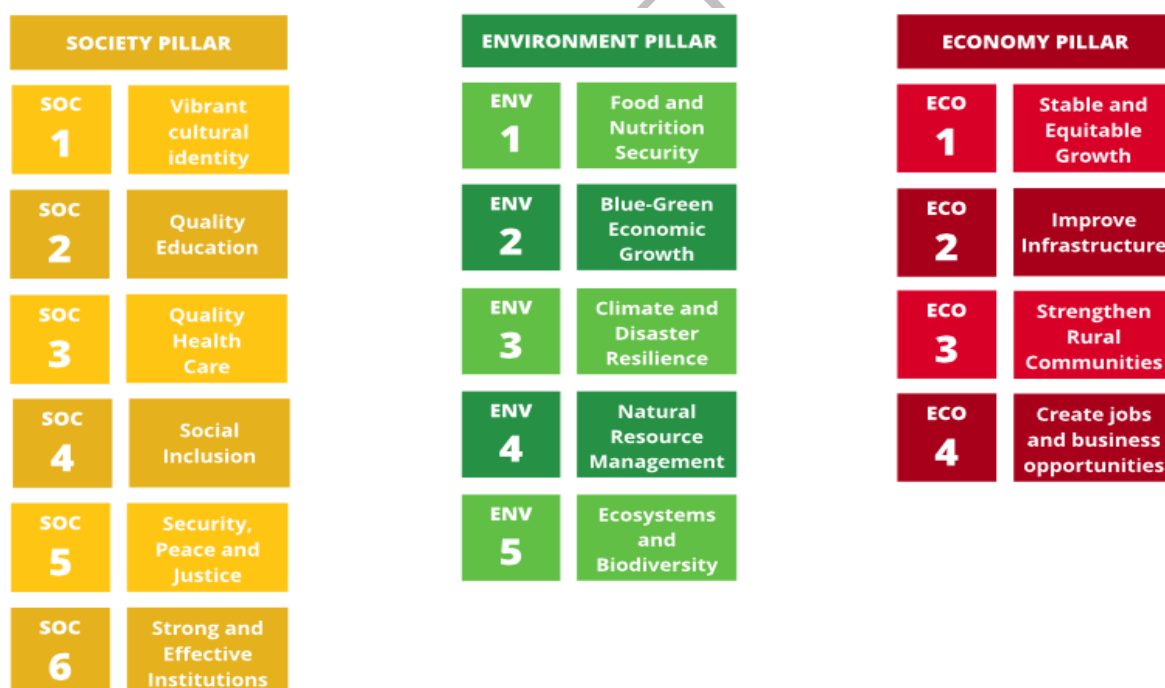


The Government of Vanuatu has identified that if the objectives embodied in the **National Sustainable Development Plan 2016-2030 (NSDP)** are to be achieved, it is necessary to develop and implement a **National Human Resource Development Plan (NHRDP)**.

In recognition that human resource development is one of the key engines for sustainable economic and social development, the Government envisages that the NHRDP will clarify priority areas for education and training investment (including scholarships) over the medium to longer term.

The development of the NHRDP has been coordinated by the *Department of Strategic Policy and Planning (DSPPAC)* with the support of the Australian funded *Governance for Growth* and *Vanuatu Skills Partnership* programs.

The three pillars of the NSDP are comprised of a number of goals that in aggregate are intended to deliver the Government's vision for **a stable, sustainable and prosperous Vanuatu**. Critical to the delivery of each goal will be the availability of human resources with relevant qualifications, knowledge, skills and experience.



From an education and training perspective, national human resource development begins with **Society Goal 2** which targets **an inclusive, equitable and quality education system with life-long learning for all**. It is progressed further by the National PSET Policy 2016-2020 Vision for *a sustainable, well-coordinated and inclusive Post-School Education and Training (PSET) system that maximises access to relevant and quality assured qualifications that lead to improved economic, social and cultural development for all*.

In his foreword to the **National PSET Policy (2016-2020)**, the Minister for Education and Training, the Honourable Jean Pierre Nirua notes the Government's commitment to a PSET system that is focused on economic and social priorities. An inclusive system that removes barriers to the economic and social benefits derived from post school education and training, irrespective of gender, level of disability or place of residence. A quality based and demand driven system that works closely with industry and the productive sectors to ensure PSET providers better match skill supply to skill demand.

The NHRDP, based on the extensive research and data analysis in this accompanying Technical Report, is intended to guide investment in education and training over the next decade to ensure that education and training resources, at both school and post-school levels (including Government and development partner scholarships), are more effectively and efficiently deployed in line with national development objectives

2. BACKGROUND

2.1 Assumptions

The National Human Resource Plan 2020-2030 (NHRDP) has been developed based on a number of assumptions:

1. That the Government recognises that without substantial improvement in early childhood, primary and secondary education outcomes, the achievement of *National Sustainable Development Plan 2016 -2030 (NSDP)* objectives is at risk.
2. That there continues to be strong commitment and resources to the reforms currently underway at all levels of the school system to improve literacy and numeracy outcomes and to improve completion rates generally.
3. That entry levels into Post-School Education and Training (PSET) are improved.
4. That the Government is strongly committed to strengthening national PSET Providers in order to allow for more and more delivery of higher level qualifications in Vanuatu.
5. That the current proportional share of national budget allocations to the PSET sector remains constant.
6. That there will be a progressive redistribution of the funds currently allocated to international scholarships toward strengthening national PSET Providers.
7. That there will be a progressive increase in scholarship awards to national PSET providers as they become increasingly capable of delivering professional and technician/associate professional level qualifications.
8. That current processes to amalgamate all public PSET providers is completed and an *Institute of Higher Education* is established in the short term, with a retained longer-term vision for a university.
9. That current, historic based funding models be revised to allow for an increasing proportion of PSET Provider funding to become performance based and directed at demonstrated quality improvements.
10. That the Tertiary Education Directorate (TED) in the Ministry of Education and Training (MoET) be adequately funded to assist PSET providers, including rural training centres, meet Vanuatu Qualifications Framework (VQF) standards.

11. That TED completes the national coverage of Provincial Skills Centres by establishing Provincial Skills Centres in Penama and Shefa.
12. That MoET progressively funds all Provincial Skill Centre positions in all provinces.
13. That the Vanuatu Qualifications Authority (VQA) is adequately resourced to facilitate the continuous quality improvements of the PSET System including the accreditation of higher level qualifications.
14. That the Government is committed to a demand led PSET system and that the full implementation of National PSET Policy 2016-2020 is supported, including the pivotal leadership role of the VQA Board, with its strong productive sector and private sector representation.

2.2 Guiding Principles

The development of the NHRDP has been guided by four key principles:

- Relevance
- Efficiency
- Access and Inclusion
- Sustainability

2.2.1 Relevance

The principal concern is the supply driven nature of international scholarships, and more recently in national scholarship as well. In other words, scholarship awards have been principally driven by student interest and available university places.

For example, there are currently 21 trainee pilots currently on scholarships despite evidence provided during consultations to develop the NHRDP, that there is currently an oversupply of pilots and that some were 'pushing trolleys at the airport'.

Another example from Scholarship Unit data shows that of the 396 students with a scholarship award for studying in Vanuatu, almost half are undertaking a generalist economics/social science degree. This raises the question, is the decision to fund these scholarships more a product of course availability rather a strategic decision to apply scholarship funding to fill identified skill gaps in the economy?

It is essential, that future investment decisions in PSET (including scholarships) are evidenced based to ensure courses, qualification levels and numbers of places are better aligned to national development objectives and to skill demand in both the private and public sectors. It is also essential that scholarship outcomes are regularly evaluated to determine their impact.

Extensive research and analysis has been undertaken in the development of the NHRDP to provide the evidence base for proposed PSET investments and to provide a baseline from which necessary on-going data collection, management and analysis will be guided.

2.2.2 Efficiency

The extent to which there are skill shortages in some areas and oversupply in others is evidence that current investments in PSET are not being maximised and delivering value for money. The fact that scholarship awardees, on completion cannot find employment raises serious efficiency concerns about the scholarship program. But it is not just the disproportionate number of awards in any

particular field in comparison to skill demand, it is also the cost. Taking the pilot example, not only is there a mismatch between demand and supply but there is also serious imbalance in costs. On average the cost of pilot scholarships is more than VUV4.85 million which is almost four times the average cost of other international scholarships at VUV 1.36 million. One pilot scholarship commenced in 2011 and completed 8 years later in 2018 cost over VUV6 million. It was also discovered during consultations that there was at least one instance where a pilot having completed a scholarship was unable to find employment because their qualifications are not recognised by the aviation industry in Vanuatu.

Increasing levels of scholarship awards to national providers, at comparatively lower cost (average VUV 657 thousand) than equivalent international scholarships (average VUV1.36 million), will have numerous benefits. It will enable an increase in the number of awards available for ni-Vanuatu students. It will provide an additional revenue stream to national PSET providers to underwrite quality improvements which in turn will enable them to attract further scholarship revenue for the delivery of higher level qualifications. It is a form of import substitution, as quality based education and training services are increasingly purchased locally rather than from overseas. It will assist the development of courses and qualifications that are tailored and contextualised specifically to Vanuatu needs.

The establishment of an Institute of Higher Education under a single administration will improve economies of scale, reduce duplication and enable better sharing of resources. As a state owned enterprise, with a degree of autonomy and commercial licence, it will be better placed to supplement its resources by taking advantage of the considerable revenue stream potentially available through workplace training funded by the private sector. Costs associated with developing flexible, open and lifelong learning strategies will be more feasible given the improved economies of scale.

With course profiles developed on the basis of labour market and national development priority research, better employment outcomes will be a strong indicator of improved PSET system efficiency.

2.2.3 Access and Inclusion

PSET providers are currently characterised by delivery of long cycle accredited and non-accredited qualifications, predominantly on a pre-employment basis. To a large extent courses are delivered within the confines of the respective provider fences.

To improve access and inclusion, it is essential that PSET Providers become much more responsive in their approaches to individual skill needs and more more flexible in their approaches to delivery of accredited qualification (in whole or part) in a range of different settings outside their fences.

Over the past 10 years the Provincial Skill Centres in Malampa, Sanma, Torba and Tafea have provided the model of this type of flexible delivery. In response to skill demand identified by Provincial Government Training Boards (PGTB) and through formal partnerships with productive sector departments, accredited training and associated business development support services has been provided throughout the provinces, often in remote community settings.

Through this process, formal training has become much more localised and accessible to previously disadvantaged groups such as:

- Women and girls who through family responsibilities and custom expectations have not had opportunity for continuing education and training
- Persons with disabilities who through specifically tailored and mainstreaming approaches in accessible settings, have developed skills and become more economically independent
- Unemployed youth in the provinces having opportunity to gain skills and be productively employed locally rather than drifting into urban areas and adding to urban youth unemployment numbers which are almost double the rural unemployment rate
- Remote communities with enhanced opportunities for skill development, mostly targeting improved productivity, processing and preservation of food sources – crops, livestock, fish
- Rural enterprises, through localised access to skills training and advice related to business management, information systems, marketing, packaging, and presentation which has been particularly effective in the tourism sector where substantial economic gains have been achieved

More flexible delivery in workplaces will improve the productive capacity of existing employees and facilitate career advancement to higher income levels. The more the private sector values the quality of PSET provider delivery of short accredited units, the more a potentially large revenue stream will become available to PSET Providers to further enable quality improvements in their respective institutions.

2.2.4 Sustainability

The NHRDP is planned within current (2018) funding levels and does not assume that increased Government appropriations will occur or current levels of development partner assistance will continue indefinitely. It does anticipate though, that PSET funding levels will be supplemented by an increasing revenue stream from the private sector and perhaps student fees as respect for PSET provider capacity improves. It also anticipates, that positive Government support for the growth of private PSET providers, will alleviate some of the pressure on the public sector in certain disciplines and enable the public providers to refocus their resources in other disciplines more closely matched to their capacity.

Should additional resources become available, it will help accelerate PSET Provider quality improvements but the NHRDP makes no assumptions that this will occur. Any Government appetite for additional resource allocations to the PSET sector will be entirely dependent on how effectively the PSET sector is responding to national development objectives.

3. CONCEPTUAL FRAMEWORK

The purpose of the **NHRDP (2020-2030)** is to guide ongoing investment in school and post-school education and training to improve the match between skill demand and skill supply.

The development of the National HRD Plan required an analysis of current and future skill demand aligned to national development objectives. As illustrated in the green diagram there are numerous approaches available to assist in the identification of skill demand. Each in their own right provide clues that when taken in combination will provide the evidence base from which conclusions about national skill demand can be made.

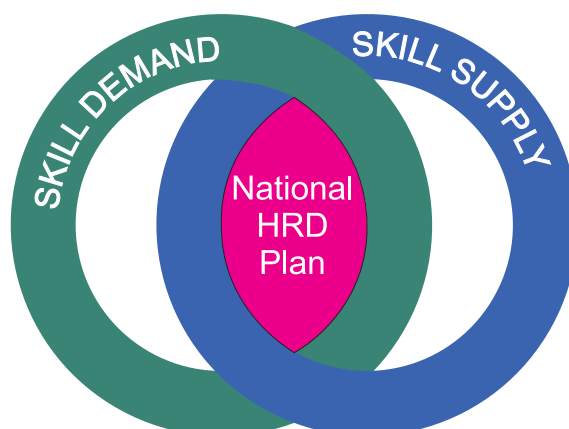
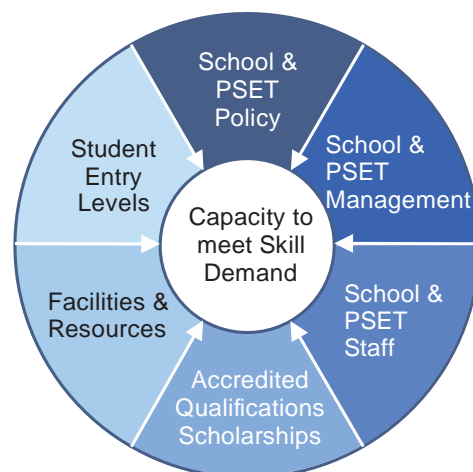
The identification of occupations that will be required to deliver **National Sustainable Development Plan (2016-2030)** objectives provides a starting point. Further clues are derived from industry consultations, and an analysis of the national labour market including the public sector. Other pointers to skill demand can be gathered from consideration of the occupations currently filled by foreign workers in the country, and the potential opportunities available in international labour markets, including the temporary visa programs.

Having established an improved understanding of skill demand there needs to be a parallel analysis of the capacity of existing education and training systems at both school and post-school (PSET) levels to meet current and emerging skill demands.

There are a range of elements which impact the capacity of the national education and training system to effectively respond to national economic and social development objectives. As illustrated in the blue diagram, these include effective policy settings, the capacity of managers and staff, the availability of relevant and quality assured qualifications, access to fit for purpose teaching and learning facilities and resources, and the cumulative ability of students to meet progressive literacy and numeracy requirements at each level of the school and PSET system.

By overlaying the skill demand and skill supply analyses conceptualised above, it becomes possible to get a better understanding of matches and mis-matches between skill demand and supply and to prepare a **National Human Resource Development Plan** to guide on-going and better targeted investments in national education and training systems.

Each of the skill demand and skill supply elements are considered in the Annexes. In aggregate they provide the rationale for the NHRDP recommendations.



4. NATIONAL HUMAN RESOURCE DEVELOPMENT PLAN 2020-2030 TECHNICAL REPORT

4.1. Introduction – piecing the clues to skill demand together

Developing the evidence base to inform NHRDP recommendations has comprised the 6 steps outlined in the **Conceptual Framework** in Chapter 3. The detailed analysis for each of these steps is provided in the annexes.

As much as possible, occupational evidence from all sources, has been classified using the *International Standard Classification of Occupations (ISCO)*.¹ In the search for patterns of skill demand and shortages, the adoption of ISCO enables comparability and aggregation of data from a range of sources. An explanation of its nature and purpose is provided in Annex 1.

Apart from the Vanuatu National Statistics Office (VNSO), consistent and coherent data has been difficult to obtain particularly from Government departments. Relevant statistics have had to be drawn from a wide variety of sources and collated and cross tabulated wherever possible.

While there is a large volume of VNSO census type data available, the long timeframes between censuses often means that the data is outdated.

From a labour market perspective, census data is currently not at a sufficiently granular level to enable finer analysis of labour market characteristics. For example, the 2010 Household Income and Expenditure Survey (HIES) included occupational data to the ISCO 1-digit level only. This is useful to get a generalised view of common occupational types but not specific enough to pin-point specific labour market characteristics.

The following sub-sections provide a **summary** of the results contained in Annexes 1 to 7. In combination they provide the evidence base for the recommendations related to PSET Investments over the life of 2020 -2030 NHRDP. Each of these clues are then synthesised in Table 4.1 which provides a visual snapshot of the identified skill shortages in comparison to the current composition of the Vanuatu labour market and foreign worker occupations.

4.2. NSDP Occupational requirements (see Annex 1)



An occupational needs analysis for each of the NSDP objectives shows that significant numbers of people with **managerial, professional and technician/associate professional** qualifications, skills and experience are required if NSDP objectives are to be achieved.

Strong leadership will be required, to initiate and oversee the range of activities necessary to deliver expected objectives. Specialist managers will be needed across different discipline areas such as agriculture, forestry and fisheries, tourism, manufacturing and construction, and information technology.

Health and teaching professionals with relevant qualifications and in sufficient numbers will also be required, not only to meet Society Pillar objectives but to underpin the achievement of all objectives across the Environment and Economy Pillars as well.

¹ Structure of the International Standard Classification of Occupations (ISCO-08) (International Labour Organisation 2008)

The need for a wide variety of technicians in areas such as engineering science, manufacturing, construction, information and communications technology (ICT), ship and aircraft control, medical, and biological sciences has also been identified. Consistent with the high demand for health and education professionals is a demand for nursing and midwifery aids, other health associate professionals and teacher aids. Finance, administrative, regulatory, ICT and legal associate professionals will also be required.

4.3. National Labour Market (see Annex 2)



There is a significant youth (ages 15-29) bulge in both urban and rural areas but in a proportional sense it is particularly apparent in urban areas where 32% of the population are between 15 and 29 years-old compared to 24% in rural areas. Correlating to this are higher rates of youth unemployment in urban areas with 23% of economically active males and over 15% of economically active females in the 15-19-year-old cohort unemployed compared to 6% unemployment for both male and females in the same age group in rural areas.

Levels of educational attainment is low across the country particularly in rural areas where almost a quarter of the female population have never been to school. The figure of 1 in 5 men in rural areas never attending school is a little better but still very high. Across the country, less than 4% of the population have tertiary level qualifications. The lack of symmetry between the requirement (described in sub-section 4.2) for managers, professionals, technicians and associate professionals to the general level of educational attainment across the population is striking. It also goes some way to explain high levels of unemployment in urban areas.

The Vanuatu economy is predominantly service based with 66% of employees in the 'for profit or wage' category engaged in service related enterprises. Within the services sector tourism plays a dominant role with varying estimates that it contributes somewhere between 20% and 30% of GDP.

Apart from the impact of Cyclone Pam, the economy has been growing steadily over recent years and achieved over 3% growth in 2016. In the services sector the strongest growth has been in professional, scientific and technical services followed by retail trade, communication, food services and accommodation. In agriculture, crop production is both the largest component and the strongest in growth terms. Electricity, water and export orientated manufacturing are showing the strongest growth in the industry sector.

An analysis of the composition of the labour market shows that a large proportion of the economically active population is in non-wage employment principally in rural areas. Of those in for profit or wage employment most are employees in the private and public sector. Approximately one-third of all wage employees are in the public service. Just over 30% of the those in for profit employment are in the youth age-group (15-29).

Females comprise 38% of the private sector and 41% of the public sector workforces. Workforce gender parity levels are highest in the services sector at 43% compared to 31% in agriculture and 24% in industry.

At the ISCO 1 level managers, professionals, technicians and associate professionals comprise only 18% of the current workforce. The largest individual categories are service and sales workers (22%), skilled agriculture workers (17%), and elementary occupations (14%).

4.4. Private Sector Requirements (see Annex 3 and 7)



To address a lack of available data, an industry survey was conducted in mid-2018 to identify key characteristics of the private sector in Vanuatu and to ascertain industry viewpoints on a number of factors related to workforce skills. These included the relative importance of skilled workers to business operations, the difficulty of finding workers with relevant skills, the nature of skill shortages and skill gaps, and the types of skill training required.

Finding skilled workers is the most significant issue for employers in the private sector. People with relevant degrees and technician level qualifications are more difficult to find. This issue is compounded by the fact that a high proportion of ni-Vanuatu managers, professionals, technicians and associate professionals do not have post-school qualifications.

In the ISCO management category, business services and administration managers, especially general managers, were cited most frequently by survey respondents as the hardest to recruit. Human resource and information technology managers were also seen to be hard to recruit. Finance professionals were the most difficult to recruit amongst ISCO professional category occupations, followed by engineering, finance, and social (archaeology, anthropology and ethnology) professionals. Marketing and sales, chefs, maritime, aviation and ICT technicians and associate professionals predominated in that ISCO category.

In the ISCO craft and related trade worker category, building frame and related trades workers, building finishers and related trades workers and electrical equipment installers and repairers were the most frequently cited difficult occupations to recruit.

Employers generally believe that their ni-Vanuatu workers have a good attitude in the workplace, but they also believe they need improved technical skills relevant to their job. Employers also indicated a preference for employing ni-Vanuatu workers ahead of foreign workers.

When asked to consider skill gaps within their existing workforce, time management, initiative, pro-activeness, organisational awareness and customer service skills were seen to be the most in need of improvement. The need to improve technical skills was also a common view as was the need to improve personal approaches to reliability, work ethic, commitment, consistent standards, and personal grooming.

Frequent references were also made to the need for improved language, literacy and numeracy skills particularly in high external interface areas such as accommodation, food services and retail.

4.5. Public Sector Requirements (see Annex 4 and 7)



Public sector data is inconsistent and depending on the Public Service Commission (PSC) source, the number of public sector positions is somewhere in the range between 10 and 11 thousand. Across all Ministries, more than 40% of these positions are currently vacant.

It is not clear the reason for this high number of vacancies, but the extent to which these vacancies are due to difficulties in finding people with required qualifications and skills is a strong indicator more broadly of national skill shortages. If the vacancies are due in part to current budget priorities, there is potential for significant labour market pressure in some areas when budget priorities are

realigned to agreed NSDP and NHRDP priorities. For example, if redressing the acute shortage of nurses and midwives becomes a national priority, there will be significant difficulties in meeting the demand from the current labour market, which in turn will put considerable pressure on the existing capacity within the Vanuatu College of Nurse Education (VCNE).

Just on 80% of all public sector vacancies are at managerial, professional, technician and associate professional levels. Of these vacancies, 44% are at the professional level. Most of the professional category vacancies are nurses, midwives and primary school teachers. There is also a significant proportion (30%) of vacancies at the technician and associate professional category level, primarily nurse and midwife associate professionals and regulatory government associate professionals. These numbers are significant given the substantial requirement for professionals, technicians and associate professionals to deliver NSDP objectives.

As the two largest Ministries, MoET and MoH have the greatest number of vacancies but the MoH has the highest proportion of vacancies in relation to its size than any other Ministry. Other Ministries with high proportions of vacancies include Lands, Climate Change, Public Utilities, and the Prime Minister's Office.

Occupations related to architecture, planning, surveying and engineering are the more frequent vacancies in the Ministry of Lands. In the Ministry of Climate Change, physical and life science professionals and technicians are the most vacant. Reflecting its different nature, the Ministry of Public Utilities needs construction supervisors, machinery mechanics and repairers, and building workers. In the Prime Minister's Office most vacant positions relate to administration professional and Government regulatory associate professional roles.

In addition to the high number of primary school teacher vacancies, there are also large numbers of primary school principals and secondary school teacher vacancies in MoET.

Self-management skills (time management, initiative, pro-activeness, organisational awareness and customer service) are seen to be a significant area for improvement in the public service. In general, qualification levels of public servants are frequently below those required for the positions.

4.6. Foreign Workers (see Annex 5)



The occupations, qualifications and numbers of foreign workers are another indicator of skill shortages and skill gaps in the national labour force. From 2018 Work Permit data covering 900 foreign workers provided by the Department of Labour, approximately 86% are either managers, professionals, technicians or associate professionals. The remainder comprise service and sales workers, and craft and related trade workers - mostly in construction.

Most of the foreign managers are in retail and wholesale, hotel and restaurant, and sales and marketing roles. A significant number of foreign missionaries dominate the professional category, with finance, sales and marketing, higher education and engineering professionals also well represented. Physical and engineering science technicians, ship and aircraft controllers, chefs and finance associate professionals make up the largest proportion of foreign workers in the technician and associate professional category.

Retail salespersons and hairdressers/beauticians are common in the services and sales category.

Most foreign workers in the craft and related trades category are construction related tradespeople and machinery mechanics and repairers.

4.7. International Labour Markets (see Annex 6)



Ni-Vanuatu have a low propensity for emigration. Based on World Bank data², there are low levels of remittances from ni-Vanuatu migrants in other countries averaging USD24 million per annum over the past 5 years compared to some other Pacific countries such as Samoa and Tonga with averages of USD149 and USD134 million respectively over the same period. These countries have had the advantage of more open labour market access in NZ and the USA and have significant diaspora in both countries which not

only provide high levels of remittances but also generate substantial pull factors including better access to information about job opportunities and migration processes, as well as community support upon arrival. Many Tongans and Samoans have also taken advantage of NZ citizenship to gain access to the Australian labour market.

Another factor is the relative land mass of countries. Significantly, the larger land mass Melanesian countries – PNG, Solomon Islands and Vanuatu have traditionally had low emigration levels possibly due in part to the absence of push factors given that a large proportion of their populations in rural areas are generally able to sustain themselves in subsistence settings.

Nevertheless, should the Government wish to consider the potential economic opportunities arising from increased emigration levels, notwithstanding concerns about ‘brain drain’ and loss of national productive capacity, active programs will be required to improve qualification and skill levels to enable prospective emigrants to avail of skilled migration opportunities.

While there have been low levels of ni-Vanuatu emigration, there has been strong participation in seasonal work through the temporary visa programs in NZ and Australia. Vanuatu has consistently held more than 40% of the places under the NZ RSE scheme over the past decade, and after a slow start is on trend to become a major participant of the Australian SWP alongside Tonga.

A number of evaluations of the schemes have concluded that real net benefit has been generated for the participants, but this has not been equally shared within countries of origin. A primary reason for this is the demand led nature of the schemes and a natural preference for employers to re-employ those that they know have the skills and attitudes required. Other factors impacting access to the schemes have been the relative concentration of recruitment agents closer to urban centres and the comparative ease of completing mobilisation formalities for those living closer to the capital.

Strategies need to be explored to expand greater opportunities for unemployed youth, women and those from remote communities. Further strategies to facilitate more effective investment of the additional incomes generated by temporary visa workers, including financial literacy, business management and entrepreneurship, would add to national productivity. The current tendency for additional disposable income to be spent on imported goods such as televisions and cheap vehicles, sees a lot of the foreign currency inflow arising from the schemes ultimately becoming foreign exchange outflow.

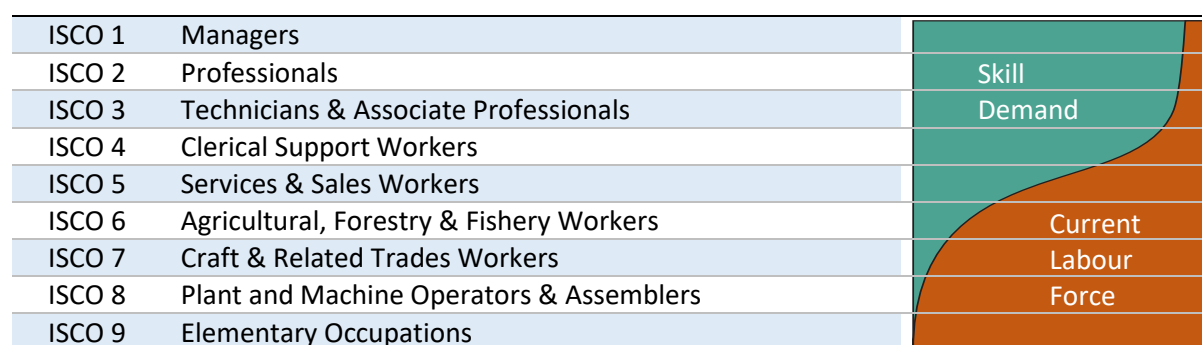
² World Bank Remittance Data Inflows 1970-2017

4.8. Skill demand matrix

Table 4.1 on the next page presents a visual snapshot of where skill demand is greatest compared to an overview of the current labour market and the jobs currently occupied by foreign workers.

At the ISCO 1-digit level, a visual comparison of the shape of the NSDP, public and private sector skill demands with the current labour market shape is revealing as illustrated in Chart 4.1. One is almost the inverse of the other. That is, skill demand is predominantly across the first three ISCO classifications (green area) whereas available skill supply is predominantly across the lower ISCO classifications (orange area).

Chart 4.1 Visual analysis - skill demand in relation to the structure of the current workforce



From this visual approximation, it is apparent that if NSDP objectives, and private and public sector skill demands are to be met, it will not only be important to increase the supply of skills in relevant areas but also to enable the current labour force opportunity to upgrade their skills and qualifications. More flexible delivery by PSET providers will be required to support lifelong learning.

In addition to providing an indication of demand at the ISCO 1 level, Table 4.2 also identifies principal skill demand areas at the ISCO 3 levels.

Table 4.1 NHRDP Skill Demand Snapshot ISCO 1-digit and 3-digit Occupational categories

<div>✓ Skills in demand</div> <div>✓ Current Supply</div> <div>◆ Occupied by Foreign Workers</div>	National Sustainable Development Plan	National Labour Market	Private Sector Skills Demand	Public Sector Skills Demand	Foreign Workers	International Labour Markets
ISCO – Level 1						
Managers	✓✓✓	✓	✓✓✓	✓✓	◆◆◆◆	
Professionals	✓✓✓✓✓	✓✓	✓✓✓✓	✓✓✓✓✓	◆◆◆◆	✓✓✓✓
Technicians & Associate Professionals	✓✓✓✓	✓✓	✓✓✓✓✓	✓✓✓✓	◆◆◆◆	✓✓✓✓
Clerical Support Workers	✓	✓✓	✓	✓✓	◆	
Services & Sales Workers	✓	✓✓✓✓✓	✓✓	✓✓	◆	
Agricultural, Forestry & Fishery Workers	✓✓	✓✓✓✓	✓	✓	◆	✓✓✓✓
Craft & Related Trades Workers	✓	✓✓✓	✓✓✓	✓	◆	✓✓
Plant and Machine Operators & Assemblers	✓	✓✓✓	✓	✓	◆	
Elementary Occupations	✓	✓✓✓	✓	✓	◆	
ISCO -Level 3						
Managers						
121 Business services and administration	✓✓✓✓		✓✓✓✓✓			✓
122 Sales, marketing & development	✓✓		✓		◆◆	
131 Agriculture, forestry and fisheries	✓		✓			
133 ICT service	✓		✓			
134 Professional Services	✓✓✓		✓	✓✓✓	◆	
141 Hotel and restaurant	✓		✓		◆◆◆	
142 Retail and wholesale trade	✓		✓		◆◆◆◆	
Professionals (Major)						
211Physical and Earth Science Professionals				✓✓		
213 Life science professionals				✓		

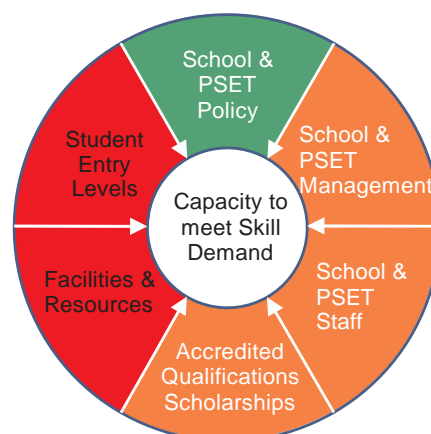
<div>✓ Skills in demand</div> <div>✓ Current Supply</div> <div>◆ Occupied by Foreign Workers</div>	National Sustainable Development Plan	National Labour Market	Private Sector Skills Demand	Public Sector Skills Demand	Foreign Workers	International Labour Markets
214 Engineering Professionals (not Electrotech)			✓✓✓		◆◆	
216 Architects, Planners, Surveyors and Designers				✓✓		
221 Medical doctors	✓✓✓					
222 Nursing and midwifery professionals	✓✓✓✓✓			✓✓✓✓✓		
226 Other health professionals	✓✓✓✓✓					✓✓
231 University and higher education teachers					◆◆	
232 Vocational education teachers	✓✓✓					
233 Secondary education teachers	✓✓✓✓✓			✓✓		
234 Primary school & ECE teachers	✓✓✓✓✓			✓✓✓✓✓		
235 Other teaching professionals	✓✓✓					
241 Finance professionals	✓✓✓		✓✓✓✓✓		◆◆◆◆	
242 Administration professionals	✓✓		✓✓✓	✓✓		
243 Sales, marketing & PR professionals					◆◆	
251 ICT developers and analysts	✓✓					
252 Database and network professionals	✓✓					
263 Social and Religious Professionals			✓✓		◆◆◆◆	
264 Authors, Journalists and Linguists			✓	✓		
Technicians & Associate Professionals						
311 Physical & engineering science technicians	✓✓✓✓✓			✓✓	◆◆◆◆◆	
312 Mining, Manufacturing & Construction S'visors				✓✓		
314 Life science technicians Assoc/professionals	✓✓✓✓✓			✓		
315 Ship and aircraft controllers and technicians	✓✓		✓✓✓		◆◆◆◆	
321 Medical and pharmaceutical technicians				✓✓		
322 Nursing and midwifery associate professionals				✓✓✓		

<div>✓ Skills in demand</div> <div>✓ Current Supply</div> <div>◆ Occupied by Foreign Workers</div>	National Sustainable Development Plan	National Labour Market	Private Sector Skills Demand	Public Sector Skills Demand	Foreign Workers	International Labour Markets
324 Veterinary technicians and assistants	✓✓					
325 Other health associate professionals	✓✓✓			✓✓		✓✓
331 Financial & mathematical Assoc/professionals	✓✓		✓✓	✓	◆◆◆	
332 Sales and Purchasing Agents and Brokers			✓✓✓✓			
333 Business Services Agents				✓✓		
334 Administrative and Specialized Secretaries			✓✓	✓✓	◆◆	
335 Regulatory government Assoc/professionals	✓✓✓✓			✓✓✓✓		
341 Legal, social & religious associate professionals	✓✓✓✓					
343 Artistic, Cultural & Culinary Assoc/professional			✓✓✓		◆◆◆	✓✓✓✓
351 ICT operations and user	✓✓		✓✓	✓	◆	
Skilled Agriculture, Forestry, Fishery Workers						
611 Market gardeners and crop growers	✓✓			✓		✓✓✓✓
612 Animal producers	✓✓			✓		
613 Mixed crop and animal producers	✓✓			✓		
621 Forestry and related workers	✓✓			✓		
622 Fishery workers, hunters and trappers	✓✓			✓		
Craft and Related Trades Workers						
711 Building Frame and Related Trades Workers			✓✓✓✓	✓	◆◆◆◆	✓✓
712 Building Finishers and Related Trades Workers			✓✓✓	✓	◆◆	✓✓
722 Blacksmiths, Toolmakers and Related Trades					◆◆	
723 Machinery Mechanics and Repairers				✓	◆◆◆	
741 Electrical Equipment Installers and Repairers			✓✓✓			
751 Food Processing and Related Trades Workers			✓✓			
754 Other Craft and Related Workers			✓✓✓			

4.9. Skill Supply Constraints (see Annex 8)

Given the clues to skill demand summarised above and detailed in the annexes, to what extent does the Vanuatu education and training sector have the capacity to meet current and emerging skill demand challenges?

Around the six elements of the education and training sector highlighted in the Conceptual Framework the answer to the question varies. Applying a traffic light approach there are some elements that are well advanced, others which are on the way, and a number which will require considerable effort and investment to get them to the levels required.



The following is a summary analysis of Annex 8 across each of the six school and PSET elements identified in the diagram. This analysis leads to a range of investment strategies that will be required to bring each of these elements to a level that is commensurate with the level of education and skills training required to achieve national development objectives.

4.9.1. School and PSET Policy



MoET has a significant range of policies in place including the Interim Vanuatu Education and Training Sector Strategy 2017 2018 (VETSS), Gender Equity in Education, Child Safeguarding, School Registration, and Primary Minimum Quality Standards.

The Minister of Education and Training, the Honourable Jean Pierre Nirua in his foreword to VETSS notes that it provides the overall direction and set priorities for the development of the education sector. It is a comprehensive policy covering as the Minister outlines fee subsidy, inclusive education, plural-lingualism, infrastructure, teacher development, curriculum, minimum standards, evidence-based policies, management systems, monitoring and evaluation, rationalization and devolution, and finally governance, partnership and communication.³ A SWOT analysis appended to the policy notes that amidst numerous internal strengths MoET has good policies in place and remains receptive to reforms.

A product of extensive consultation, the *National PSET Policy 2016-2020* was endorsed by Government in 2016. In his foreword to this policy the Minister noted that it builds the platform for continuing economic and social development across Vanuatu. Further he noted that it promotes a demand driven PSET system that is aligned to national development objectives. Importantly the policy focuses on inclusion and equitable access to a decentralised PSET system that fosters lifelong learning, opens pathways to further education and training and extends economic benefits associated with higher skill levels for all who wish to participate.

The three pillars of the PSET policy include specific objectives covering the strategic direction, oversight and service delivery of the PSET sector. The policy is supported by a *PSET Policy Implementation Plan* that provides a guide to the extensive range of activities that are needed to be implemented by all PSET stakeholders to achieve policy objectives.

³ Interim Vanuatu Education and Training Sector Strategy 2017 2018 (MoET 2017)

4.9.2. School and PSET Management



It has been noted that school principals are often appointed without a merit-based selection process and many lack financial and leadership experience. The SWOT analysis in the VETSS identifies the need to improve management in terms of compliance, overlap, duplication of functions and coordination as one of the education and training system weaknesses.

There is a significant number of primary school principal positions vacant and VETSS notes there is a high turnover of school heads which has an impact on the management of schools. Weak school leadership leads to poor controls on teacher absenteeism and classroom contact hours. There is a lack of data regarding school management performance to guide policy development.

A PSET survey undertaken in 2018 as part of the NHRDP development process asked PSET respondents which disciplines were hardest to recruit. One in three responses cited qualified managers as the hardest. More than 60% of respondents believed the availability of data to guide planning was either poor or unsatisfactory and 40% of respondents regarded their financial systems and their strategic and corporate planning as either poor or unsatisfactory.

As to their capacity to generate revenue, despite the considerable amount of potential revenue from the private sector for on-the-job training, 47% of respondents said it was poor.

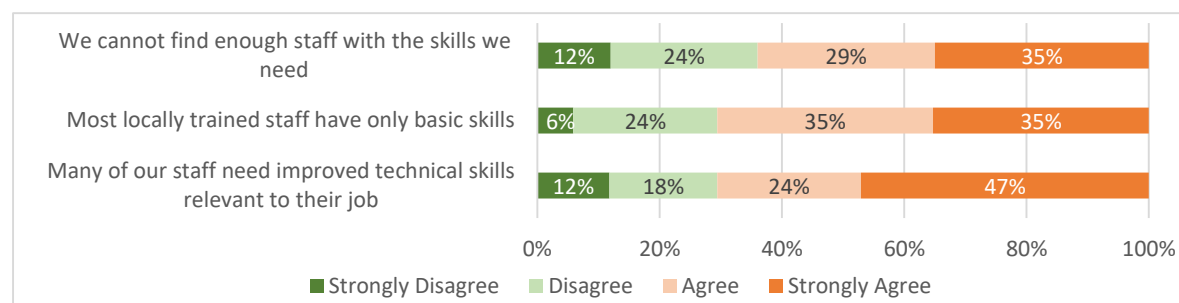
4.9.3. School and PSET Staff



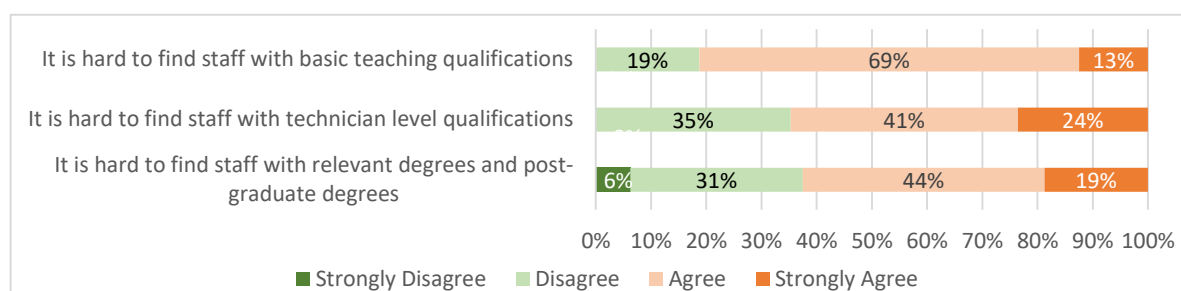
Public Service Commission data revealed over 450 primary school and 180 secondary school teacher positions were vacant in 2018. Compounding the issue, it is noted in VETSS that there are still a number of teachers (40%) lacking formal teacher training. This 2017 data is higher than was reported in the 2015 Statistical Digest which indicated that 37% of primary and 30% of secondary teachers were not certified.

Teachers' commitment and motivation are regarded as weaknesses, as are performance management practices.

PSET Provider respondents to the survey identified the ability to recruit skilled instructors/lecturers/teachers was the second most significant issue impacting the quality of course delivery behind the entry levels of students. As noted in the chart below, the level of staff skills is also an issue.



In terms of qualifications, most PSET respondents agreed or strongly agreed that finding teachers with basic teaching qualifications was hard. There are also high levels of agreement about the difficulties to find teachers with technician and higher education qualifications.



4.9.4. Accredited Qualifications and Scholarships



PSET providers have been slow to pursue the accreditation of their qualifications and in some cases have resisted outright. While the rate of accreditation has been improving over the past couple of years, the PSET Survey revealed that of the 102 courses being delivered by respondents, 58% are still non-accredited.

The continuance of this practice means that graduates of these non-accredited courses will have non-recognised qualifications which, given the clear importance put on accredited qualifications by employers, will limit their employment opportunities in a highly competitive job market. It will also limit opportunities for further education and training as graduates may lack sufficient credit to meet entrance requirements. In this context, the continuing practice of delivering non-accredited qualifications is a highly inefficient use of scarce education and training resources. It is essential that scarce resources are applied to maximise opportunities for graduates, not limit them.

The current development of degree programs at VCNE and VITE is a welcome development but up until recently almost all PSET accredited qualifications were at VQF levels 1 and 2. As has been indicated in earlier sections and detailed in the annexes, the majority of skill demand is at the management, professional, technician and associate professional levels which require qualification levels at a minimum of Certificate 3 or above. Even the demand for tradespeople is not serviced by graduates with less than a Certificate 3 level qualification.

Another welcome development has been the emergence of private PSET providers who have quickly identified demand, pursued accreditation processes through the VQA, and are now delivering accredited courses from Certificate 3 up to advanced diploma levels.

National PSET Providers need to enhance the level of their course offerings to a minimum Certificate 3 level and there should be support for Rural Training Centres to deliver Certificate 1 and 2 courses that may meet the immediate skill demand in rural areas and provide a pathway to further education and training with the national PSET providers.

Reform of the national scholarship program has commenced to redress the inefficiencies of the supply driven system that has predominated up until recently. The commencement of national scholarships enables the dual benefit of greater cost efficiency and an additional revenue stream to national providers to fund their continuous quality improvement. At a macroeconomic level it will reduce demand on foreign exchange reserves.

New criteria for scholarship award now include a requirement for applicants to demonstrate how their proposed course is aligned to NSDP objectives and there is the intention that the NHRDP will be a further guide to setting priorities for scholarship awards – both Government and development partner scholarships.

Under the direction of the Minister, all 100 level courses associated with scholarships to USP must be delivered on the Emalus Campus. This is a much more efficient process, reducing the time and associated costs of completion of courses in overseas campuses.

While it is understood that PSET providers, other than VCNE and VITE, have limited capacity to deliver courses that would meet occupational standards in the professions, there is clear opportunity for them to respond to higher level demand at the technician/associate professional and the craft/associate trade levels. Investment will be required in management, staff and facility upgrades for this to occur. To seed such developments there is a need to reconsider the proportional budget allocations to the scholarship program and the PSET Providers. With the ensuing quality improvements that should occur, PSET Providers should be increasingly be able to tap additional revenue from the sale of accredited on-the-job training to the private sector and through higher level fee structures.

Both of these opportunities will be dependent on the current low status of the PSET providers being elevated by demonstrable quality improvements. The Government's proposed amalgamation of public PSET Providers to establish a national Institute of Higher Education will be an important step in this regard. Improved economies of scale, higher level resourcing to attract high quality managers and staff, and more coordinated investment in equipment and facilities generally will improve the status of the institute and the marketability of its graduates in national and international labour markets.

The Vanuatu Institute of Public Administration and Management (VIPAM) also needs to be incorporated into the thinking related to a national Institute of Higher Education. Given identified public sector skill gaps and the apparent gaps between existing staff qualifications and specified qualification requirements, there is demand for significant levels of public sector in-service education and training. The inclusion of VIPAM into the proposed Institute of Higher Education would enable it to benefit from the economies of scale referred to above and enable it to facilitate and coordinate public sector in-service development through the other faculties within the Institute. It would also ensure public sector professional development requirements are incorporated and coordinated with other demands on the overall scholarship program.

4.9.5. Facilities and Resources



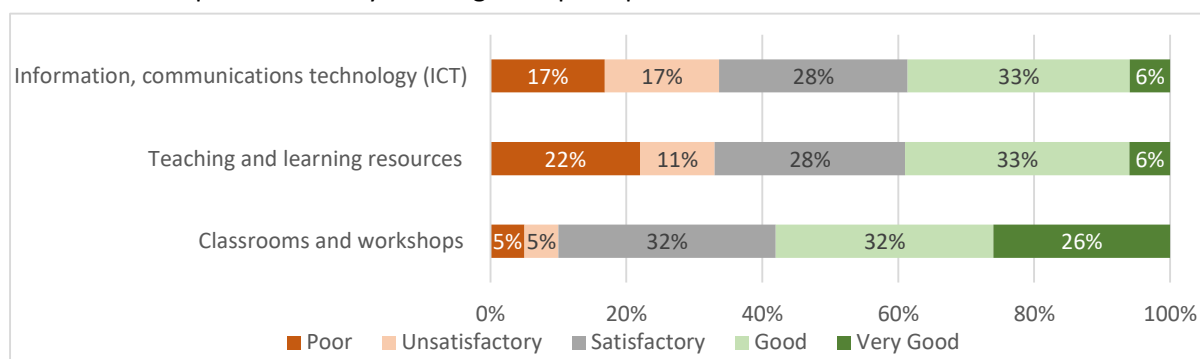
Facilities & Resources

VETSS notes that many school facilities do not meet standards and there are poor maintenance standards. Compounding the issue, school infrastructure was devastated by Cyclone Pam.

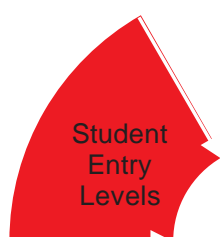
In response, VETSS includes a specific strategy to develop proper infrastructure and a National School Development Plan. In 2016, VUV3.2 billion development partner funds were committed to assist MoET implement a comprehensive, nationwide infrastructure program including classroom construction, reconstruction and maintenance programs. Nevertheless, strong population growth and the wide dispersal of schools close to communities in remote areas, continue to challenge the provision and

upkeep of adequate teaching and learning facilities. Schools in rural areas are often in disrepair posing significant risks to child safety and overcrowded classrooms in urban areas are a huge issue particularly in the early grades which hampers teacher classroom management and the introduction of more child-centred approaches to learning (DFAT 2018).

The impression of PSET Provider Survey respondents to the quality of facilities and resources was generally positive with most believing them to be satisfactory or better. However, as noted, most PSET Provider courses are at the Certificate 1 or 2 levels. If they were to elevate their delivery of courses to Certificate 3 and above, the more complex workshop, laboratory, equipment and consumable requirements may challenge this perception.

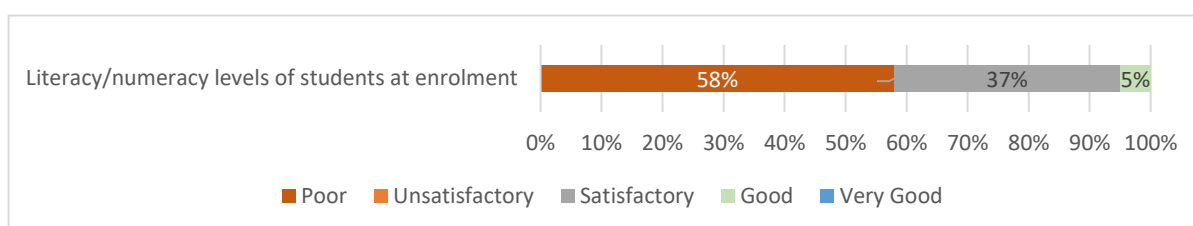


4.9.6. Student Entry Levels



Within the current school cohorts, national literacy and numeracy levels would appear to be improving but the 2017 VANSTA found that 1 in 3 Grade 4 students (both Anglophone and Francophone) were not meeting the minimum literacy standard for that year of schooling. A 2012 ASBAE assessment found only a little over half of junior secondary school students in Shefa (excluding Port Vila) were literate.

Student entry levels are a highly significant issue for PSET Providers with almost 60% of survey respondents suggesting that at enrolment, student literacy/numeracy levels were poor



The 2009 Census reported that over 17% of the adult population had never been to school. The Vanuatu Education Policy Advocacy Coalition (VEPAC) cited in the National Adult Language, Literacy and Numeracy Framework (NALLNF 2017) reported only 28% of the population literate.

The 2012 Hybrid Survey (SPC, VNSO 2013) compared high self-reported Bislama literacy levels (80+%) to self-reported English and French literacy levels which were considerably lower – 51% English and 22% French. These figures correlate with Bislama being the common national language and possibly to the relative proportions of English and French speakers in the population. The 2009 Census reported the proportion of the population over 5 years old who are able to read and write a simple sentence in English was 64% and French 37%.

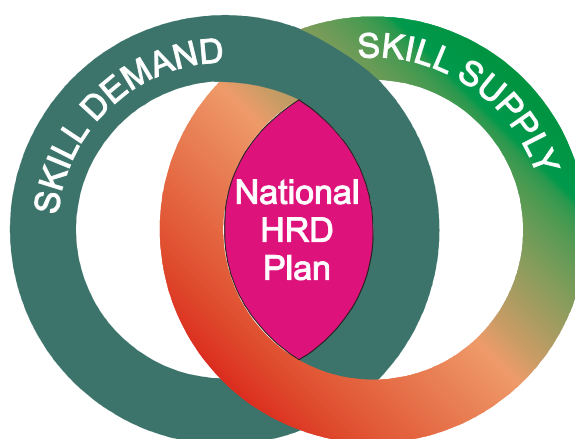
The levels of English and French literacy are critical in the PSET sector where, as the level of qualification increases, increasingly complicated techniques require more complex language expressions during instruction and within teaching and learning resources. Understanding English and/or French language textbooks, manuals and audio-visual aids is critical to successfully completing PSET qualifications.

4.10. Recommendations for future investments in Post School Education and Training

The evidence, from a wide range of sources in the preceding chapters and the annexes, validates the basic premise underlying the development of the National Human Resource Development Plan (NHRDP).

The Terms of Reference for the NHRDP included the comment:

There is currently a mismatch between the current education and training systems and the labour market demand, where the low-skilled labour is seen to hinder national development objectives. In fact, this mismatch in the labour market has been raised in numerous discussions on economic development issues but unfortunately there is no comprehensive documented information of the extent and nature of the mismatch in the labour market in order to inform policy development and guide decision-makers in Vanuatu.



The nature and extent of the mismatch is now clear. The *National Sustainable Development Plan 2016-2030 (NSDP)* objectives, in combination with evidence from the private and public sectors, reinforced by foreign worker occupations, all point to the need **for ni-Vanuatu managers, professionals and technicians/associate professionals**. However, the labour market analysis points to the fact that the ni-Vanuatu workforce is comprised primarily of semi-skilled workers in agriculture and the services sector.

The analysis of the school and PSET system offers some explanation for this predominant workforce characteristic – low education completion rates, low levels of literacy and numeracy, and limited PSET provider capacity to offer higher level qualifications preclude opportunities for ni-Vanuatu to undertake courses at levels commensurate with the manager, professional, technician and associate professional occupations in demand.

The following NHRDP recommendations envisage a twelve-year horizon out to 2030 in parallel to the NSDP timeframe.

4.10.1 The School Sector

In 2015, the education budget accounted for 24% of the total government appropriated recurrent expenditure.⁴ While this is a substantial portion of national budgets, the continuing and expanding

⁴ Annual Statistical Digest (MoET 2015)

challenges in the school sector create significant budget strain. Development partner assistance has been critical to enable the Government's education reforms to be implemented.

The Vanuatu Education and Training Sector Strategy (VETSS) points to investments in the school sector that are targeting critical areas related to enrolment rates, completion rates, literacy and numeracy levels, pre-service and in-service teacher training, and school infrastructure. Over the life of the NHRDP, continuing progress towards improved entry levels into post-school education and training, will be fundamental to the capacity of national PSET Providers to extend their offering of higher level qualifications.

It is not the purpose of the NHRDP to make specific recommendations about investments in the school sector. The issues are clearly understood in MoET and the investment strategies outlined in VETSS are being implemented to address them.

4.10.2 The PSET Sector Overview

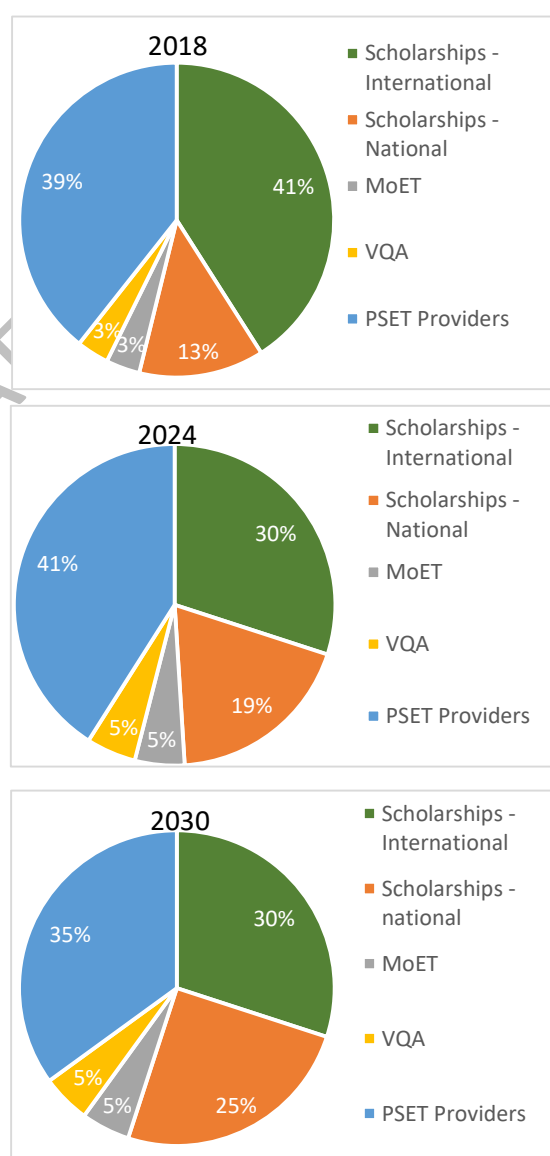
There is a need to comprehensively review investment strategies in the PSET sector in order for the sector to better service private and public sector skill demand, through better targeted, and more flexible delivery of higher level qualifications.

The following proposed investments are based on constant prices with 2018 as the baseline. Of course over the life of the NHRDP, budget availability may vary with changing macroeconomic circumstances, and actual PSET investments will vary accordingly. There will be natural increases in budget values in line with national growth rates but in real terms these increases may only keep up with increased costs. What is critical is that the structural changes in funding share of overall PSET investments be maintained.

The sequence of charts on this page illustrates the structural changes to the funding that should be evident on a six yearly basis. The progressive reduction in the international scholarship budget is offset by the progressive increase in the national scholarship budget.

There is a slight increase to the MoET and VQA share between 2018 and 2024 to cover the necessary continuous improvement that will be required for the PSET Providers to deliver national scholarships to the standards required.

Between 2018 and 2024 the PSET Provider budget share increases slightly, principally to enable the VCNE and VITE to expand their capability to meet the significant shortages of nurses and teachers.



Over this same period, the combination of national scholarship allocations and PSET budget allocations brings the overall PSET Provider share to 60% compared to 52% in 2018. From 2024 to 2030, as national PSET Providers become increasingly capable of meeting required qualification standards, the national scholarship allocation should reach 25% of total PSET investment but the overall PSET provider share remains at 60%.

The following table and chart illustrate the relative changes to budget share on a biennial basis.

Table 4.2 Proportional Share of PSET Budget Allocations 2018 -2030

	2018	2020	2022	2024	2026	2028	2030
Scholarships - International	41%	35%	30%	30%	30%	30%	30%
Scholarships - National	13%	15%	17%	19%	21%	23%	25%
MoET (TED)	3%	5%	5%	5%	5%	5%	5%
VQA	3%	5%	5%	5%	5%	5%	5%
PSET Providers	39%	40%	43%	41%	39%	37%	35%
	100%	100%	100%	100%	100%	100%	100%

Chart 4.2 Proportional Share of PSET Budget Allocations 2018 -2030

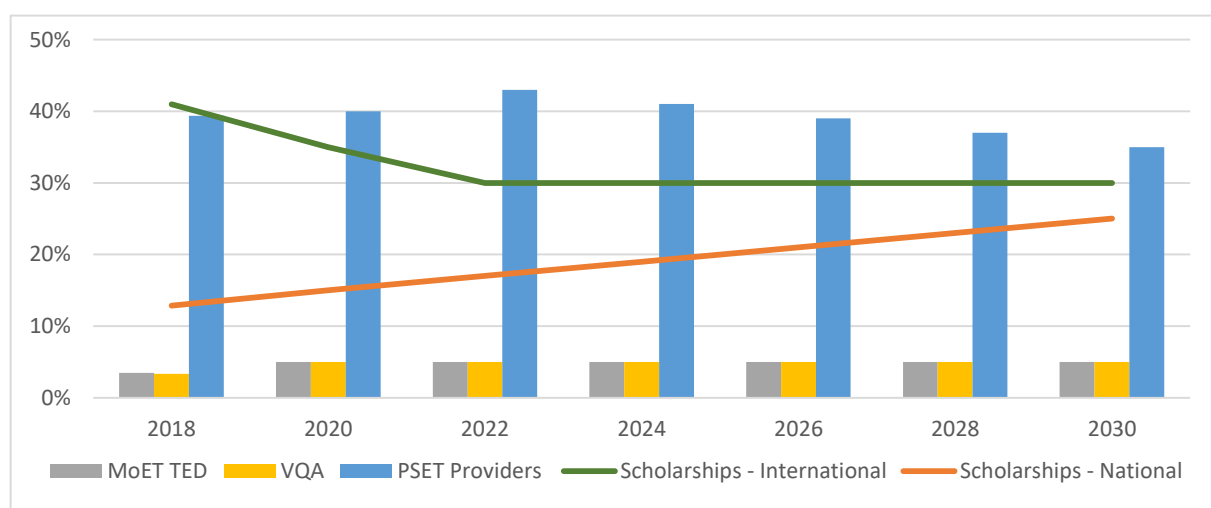


Table 4.3 Applies these proportions to the baseline 2018 allocation of VUV 1,504 million to show proposed monetary allocations over the corresponding years.

Table 4.3 PSET Budget 2018 -2030 (VUV million – Constant Price 2018 base year)

	2018	2020	2022	2024	2026	2028	2030
Scholarships - International	616	526	451	451	451	451	451
Scholarships - National	193	226	256	286	316	346	376
MoET	52	75	75	75	75	75	75
VQA	50	75	75	75	75	75	75
PSET Providers	592	601	647	616	586	556	526
Annual Total	1,504	1,504	1,504	1,504	1,504	1,504	1,504

4.10.3 National Scholarships

As indicated in Table 4.3, the value of national scholarships is expected to increase yearly and become an increasingly important source of funds for PSET providers. Given the skill demand priorities outlined in the annexes, and given the capacity of national PSET providers, it is expected that the distribution of national scholarships will be focused at the professional level on nurses and

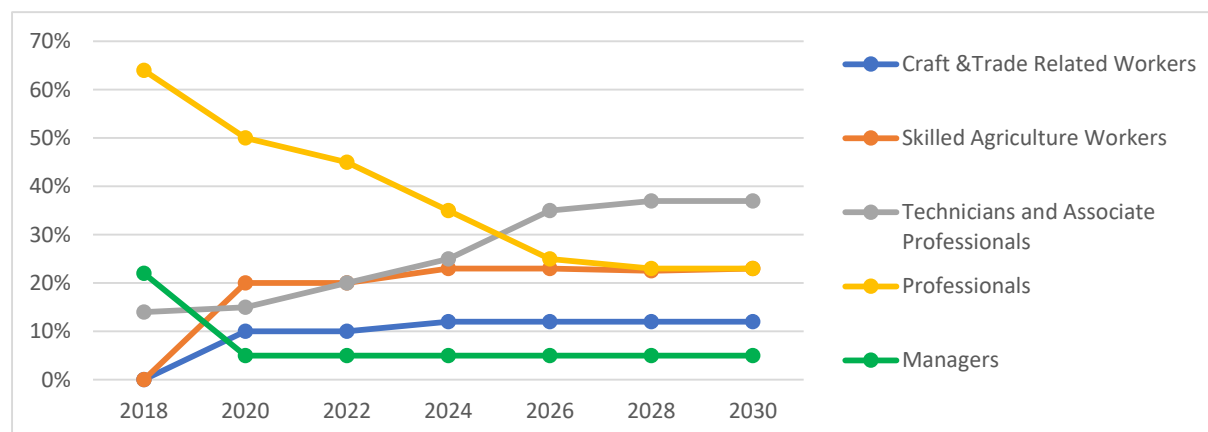
school teachers. The other foci should be on technicians and associate professionals, skilled agriculture workers, craft and related trade workers, and to a lesser extent management.

Table 4.4 and Chart 4.3 provide the recommended allocations of national scholarships across the period of this Plan. The figures for 2018 are based on current scholarship data provided by the MoET Scholarship Coordination Unit.

Table 4.4 Proportional Share of National Scholarship Allocations (2018 -2030) ISCO-1 Level

	2018	2020	2022	2024	2026	2028	2030
Managers	22%	5%	5%	5%	5%	5%	5%
Professionals	64%	50%	45%	35%	25%	23%	23%
Technicians and Associate Professionals	14%	15%	20%	25%	35%	37%	37%
Skilled Agriculture Workers	0%	20%	20%	23%	23%	23%	23%
Craft & Trade Related Workers	0%	10%	10%	12%	12%	12%	12%
	100%	100%	100%	100%	100%	100%	100%

Chart 4.3 Proportion Share of National Scholarship Allocations (2018 -2030) ISCO-1 Level



As Chart 4.3 indicates, over the decade from 2020, the proportional share of national scholarship allocations for managers and professionals is planned to drop in favour of increased proportions for skilled agriculture workers, technicians and associate professionals and craft and trade related workers. The proposed breakdown for **Manager** related scholarships follows:

Table 4.5 Proportional Share of National Scholarship Allocations (2018 -2030)
Managers ISCO-3 Level

	2018	2020	2022	2024	2026	2028	2030
Business Services & Administration	0%	22%	22%	22%	22%	22%	22%
Agriculture, Forestry and Fisheries Production	0%	13%	13%	13%	13%	13%	13%
Professional Services	0%	40%	40%	40%	40%	40%	40%
Hotel and Restaurant	92%	20%	20%	20%	20%	20%	20%
Other	8%	5%	5%	5%	5%	5%	5%
	100%	100%	100%	100%	100%	100%	100%

While hotel and restaurant managers are an identified skill demand, the 2018 allocation of 92% is disproportionate to the numbers that can be absorbed into the workforce, and disproportionate to other manager skill demands particularly in the public sector.

The monetary allocation based on the adjusted proportional share is shown in Table 4.6.

Table 4.6 Share of National Scholarship Budget 2018 -2030 in monetary terms (VUV million)

Managers ISCO-3 Level							
Manager Type	2018	2020	2022	2024	2026	2028	2030
Business Services & Administration	-	2	3	3	3	4	4
Agriculture, Forestry and Fisheries Production	-	1	2	2	2	2	2
Professional Services	-	5	5	6	6	7	8
Hotel and Restaurant	39	2	3	3	3	3	4
Other	3	1	1	1	1	1	1
Annual Total	43	11	13	14	16	17	19

Table 4.7 provides the proposed share of the national scholarship **professional** allocations from 2018 -2030. It shows a significant increase in allocation for scholarships to VCNE and VITE to support the substantial gaps in the nursing and teaching workforce. It also suggests a gradual increase in the number of scholarships in the science and engineering fields in anticipation that national providers will progressively achieve the capacity to deliver qualifications at this level.

Table 4.7 Proportional Share of National Scholarship Allocations (2018 -2030)

Professionals ISCO-3 Level							
	2018	2020	2022	2024	2026	2028	2030
Physical and Earth Science Professionals	1%	0%	1%	2%	3%	4%	5%
Life Science Professionals	5%	0%	1%	2%	3%	4%	5%
Engineering Professionals	1%	0%	1%	2%	3%	4%	5%
Nurses	0%	45%	45%	43%	42%	40%	38%
Teachers	2%	30%	30%	30%	29%	28%	27%
Finance Professionals	4%	4%	5%	4%	4%	4%	4%
Legal Professionals	11%	5%	5%	5%	4%	4%	4%
Social and Religious Professionals*	69%	9%	5%	5%	5%	5%	5%
Other Professionals	7%	7%	7%	7%	7%	7%	7%
	100%	100%	100%	100%	100%	100%	100%

* Economists, Social Scientists

Before proceeding further, it is important to analyse the 2018 national scholarship allocation. Overall the data indicates there are currently 396 places in national PSET institutions. Of these, almost 240 places or 63% relate to professional qualifications. Of these, almost half are undertaking a generalist economics/social science degree. At face value it appears to be a classic example of a supply driven system where, the PSET provider determines the course offering on the basis of its capability and available resources rather than establishing course profiles based on researched skill demand.

The monetary impact of the realigned national scholarship budget is shown in Table 4.8.

Table 4.8 Share of National Scholarship Budget 2018 -2030 in monetary terms (VUV million)

Professionals ISCO-3 Level							
	2018	2020	2022	2024	2026	2028	2030
Physical and Earth Science Professionals	1.24	-	1.15	2.00	2.37	3.18	4.32
Life Science Professionals	6.19	-	1.15	2.00	2.37	3.18	4.32
Engineering Professionals	1.24	-	1.15	2.00	2.37	3.18	4.32
Nurses	-	50.75	51.76	43.00	33.16	31.82	32.85
Teachers	2.48	33.83	34.51	30.00	22.89	22.27	23.34
Finance Professionals	4.95	4.51	5.75	4.00	3.16	3.18	3.46
Legal Professionals	13.62	5.64	5.75	5.00	3.16	3.18	3.46
Social and Religious Professionals*	85.44	10.15	5.75	5.00	3.95	3.98	4.32
Other Professionals	8.67	7.89	8.05	7.00	5.53	5.57	6.05
	124	113	115	100	79	80	86

* General economics, social science

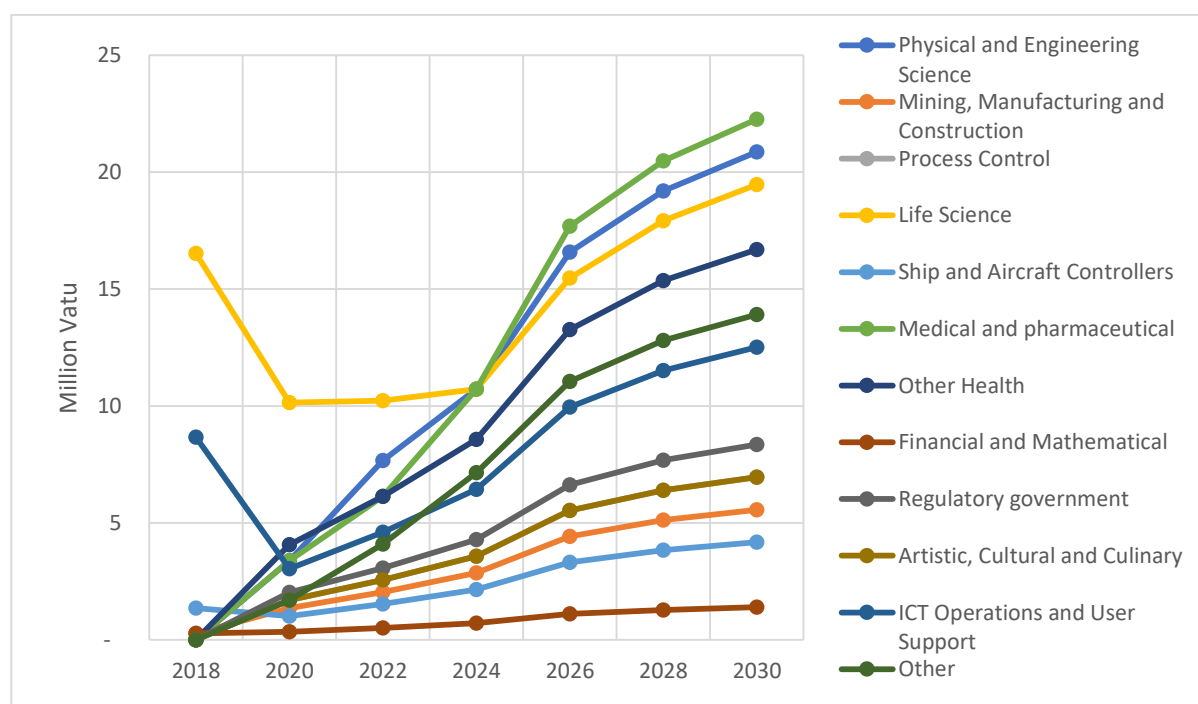
At the **Technician and Associate Professional** level, the predominant scholarship in 2018 was in the *Life Science Technicians and Related Associate Professionals* category comprising the 53 Agriculture Technicians scholarship awardees at the Vanuatu Agriculture College. There was also a substantial number (28) of awardees undertaking a Diploma of Information Technology with Pacific Technical and Further Education (PTAFE USP). Again, there is evidence to suggest that there is skill demand in both of these areas and there is high likelihood that the graduates will find employment in their chosen field. There is however, a range of other technician and associate professional fields that have high levels of skill demand. In particular, medical and pharmaceutical technicians and other health associate professionals.

Table 4.9 below shows the realignment of scholarship allocations more in parallel with national skill demand. Following the table, Chart 4.4 illustrates that in monetary terms, there is a progressive increase across all categories as the technician and associate professional share of national scholarships increase over time. As shown in the chart, by the middle of the decade, all categories will exceed 2018 values.

Table 4.9 - Proportional Share of National Scholarship Allocations (2018 -2030)
Technicians and Associate Professionals ISCO-3 Level

	2018	2020	2022	2024	2026	2028	2030
Physical and Engineering Science Technicians	0%	10%	15%	15%	15%	15%	15%
Mining, Manufacturing and Construction Supervisors	1%	4%	4%	4%	4%	4%	4%
Process Control Technicians	0%	5%	5%	5%	5%	5%	5%
Life Science Technicians and Related Assoc. Professionals	61%	30%	20%	15%	14%	14%	14%
Ship and Aircraft Controllers and Technicians	5%	3%	3%	3%	3%	3%	3%
Medical and pharmaceutical technicians	0%	10%	12%	15%	16%	16%	16%
Other Health Associate Professionals	0%	12%	12%	12%	12%	12%	12%
Financial and Mathematical Associate Professionals	1%	1%	1%	1%	1%	1%	1%
Regulatory government associate professionals	0%	6%	6%	6%	6%	6%	6%
Artistic, Cultural and Culinary Associate Professionals	0%	5%	5%	5%	5%	5%	5%
ICT Operations and User Support Technicians	32%	9%	9%	9%	9%	9%	9%
Other Technicians & Associate Professionals	0%	5%	8%	10%	10%	10%	10%
	100%	100%	100%	100%	100%	100%	100%

Chart 4.4 Share of National Scholarship Budget 2018 -2030 in monetary terms (VUV million)
Technicians and Associate Professionals ISCO-3 Level



4.10.4 International Scholarships

The 2018 proportional share of the international scholarship budget shows that it is predominantly comprised of awards leading to occupations in the ISCO professional category. Management related qualifications follow, ahead of technicians and associated professional related qualifications.

Over the coming decade it is expected that the respective shares across these categories will change in line with the skill demand priorities that have been identified in this report. Both the management and professional category shares are adjusted downwards to allow for an increased share at the technician and associate professional level. Chart 4.5 provides a graphic illustration of the changing proportional values.

Table 4.10 Proportional Share of International Scholarship Allocations (2018 -2030) ISCO-1 Level

	2018	2020	2022	2024	2026	2028	2030
Managers	10%	5%	5%	5%	5%	5%	5%
Professionals	82%	80%	70%	65%	65%	65%	65%
Technicians and Associate Professionals	8%	15%	25%	30%	30%	30%	30%
	100%	100%	100%	100%	100%	100%	100%

Chart 4.5 Proportion Share of International Scholarship Allocations (2018 -2030) ISCO-1 Level

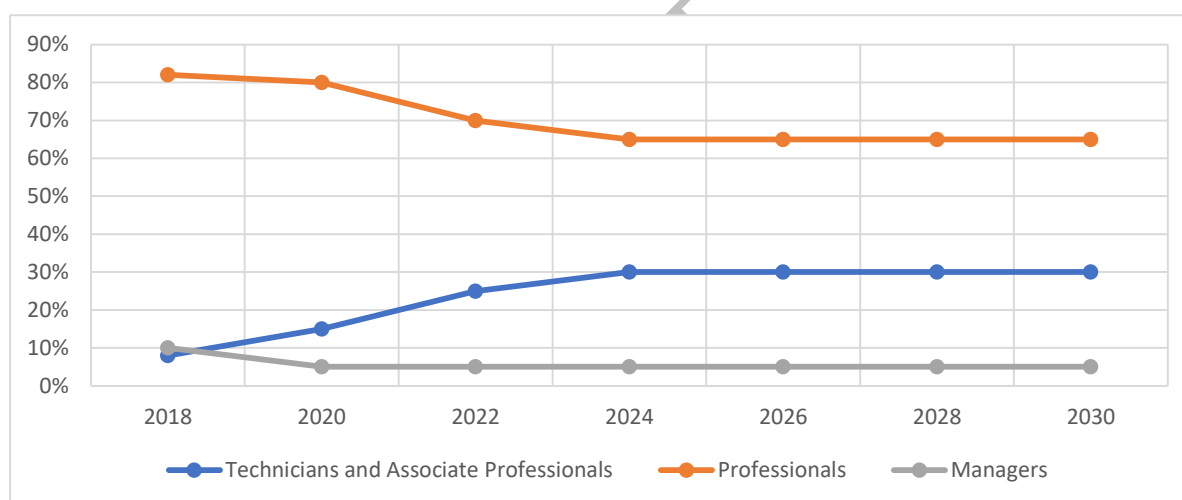


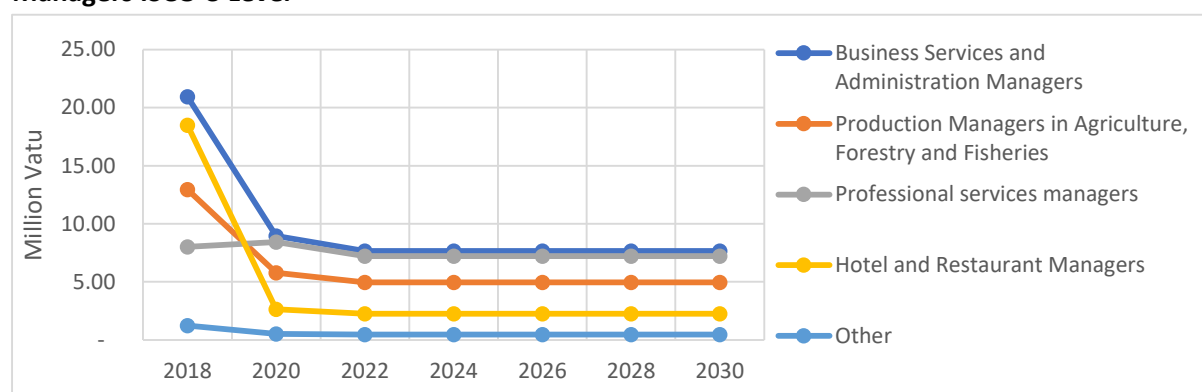
Table 4.11 below provides the breakdown to the ISCO 3 level of the proposed realignment in international scholarship awards for manager related qualifications. The most significant aspect is a reduction in allocations to hotel and restaurant manager qualifications in favour of an increased share for professional service managers particularly for the health and education sectors. It is acknowledged that there is demand for hotel and restaurant managers but given that this demand should be able to be met by national PSET providers, it is a lower priority for international awards. Small proportional increases are also included for business service and administration managers with a recommendation that this particular category be focused on finance, human resources, and policy and planning managers in the public service. Strong leadership and management is also required across the productive sectors and so the proportional share allocated for manager related qualifications in this area is maintained at just a little over the 2018 levels

What needs to be borne in mind, is that while the proportional share of each management category is maintained from 2020 onwards, in monetary terms as shown in Chart 4.6, the actual allocations will be less than the 2018 level due to overall reduction in management related scholarships.

Table 4.11 Proportional Share of International Scholarship Allocations (2018 -2030)

Managers ISCO-3 Level							
	2018	2020	2022	2024	2026	2028	2030
Business Services and Administration Managers	34%	34%	34%	34%	34%	34%	34%
Production Managers in Agriculture, Forestry and Fisheries	21%	22%	22%	22%	22%	22%	22%
Professional services managers	13%	32%	32%	32%	32%	32%	32%
Hotel and Restaurant Managers	30%	10%	10%	10%	10%	10%	10%
Other	2%	2%	2%	2%	2%	2%	2%
	100%	100%	100%	100%	100%	100%	100%

Chart 4.6 Share of International Scholarship Budget 2018 -2030 in monetary terms (VUV million)
Managers ISCO-3 Level



As can be seen in Table 4.12 below, life science professionals dominate the MoET Scholarship Unit 2018 figures for the professional occupational category. Of these, over 40% are studying biology in combination with other disciplines, principally chemistry. The other major groups in this category are environmental science (31%) and agriculture/agribusiness (13%).

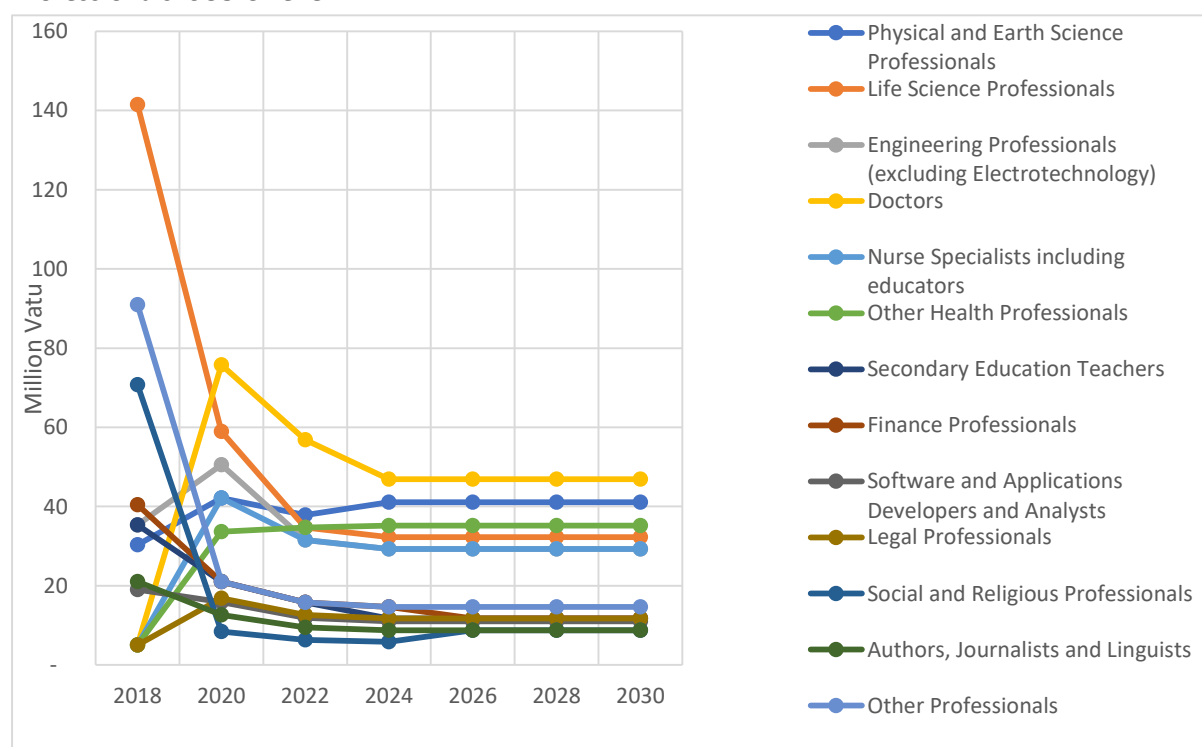
As was the case for the national scholarship figures, there is a high proportion of social and religious professional scholarships and again a high proportion (50%) of these relate to economics. This reinforces the point made earlier, that it is hard to envisage how the Vanuatu economy will be able to absorb such a large number of economics graduates into the public and private sector workforce. It also underlines the view that up until recently the scholarship award system has been supply driven based on student interest and available university places. Continuing analysis of scholarship data will be necessary to better inform prospective students about course and career choices.

Along the same lines, while there is a substantial need for qualified secondary school teachers, of the current 36 awardees undertaking an education qualification, more than 50% are doing courses which include geography as a principal component raising again the prospect of oversupply.

Table 4.12 Proportional Share of National Scholarship Allocations (2018 -2030)**Professionals ISCO-3 Level**

	2018	2020	2022	2024	2026	2028	2030
Physical and Earth Science	6%	10%	12%	14%	14%	14%	14%
Life Science	28%	14%	11%	11%	11%	11%	11%
Engineering	7%	12%	10%	10%	10%	10%	10%
Doctors	1%	18%	18%	16%	16%	16%	16%
Nurse Specialists/Educators	1%	10%	10%	10%	10%	10%	10%
Other Health Professionals	1%	8%	11%	12%	12%	12%	12%
Secondary School Teachers	7%	5%	5%	4%	4%	4%	4%
Finance Professionals	8%	5%	5%	5%	4%	4%	4%
ICT Developers and Analysts	4%	4%	4%	4%	4%	4%	4%
Legal Professionals	1%	4%	4%	4%	4%	4%	4%
Social and Religious	14%	2%	2%	2%	3%	3%	3%
Authors, Journalists, Linguists	4%	3%	3%	3%	3%	3%	3%
Other Professionals	18%	5%	5%	5%	5%	5%	5%
	100%	100%	100%	100%	100%	100%	100%

The impact of the realignment of international scholarship awards shown above in monetary terms is illustrated in Chart 4.7. Major increases in the health sector are offset by corresponding decreases in other sectors, particularly social and religious professionals (economics and social science).

Chart 4.7 Share of International Scholarship Budget 2018 -2030 in monetary terms (VUV million)**Professionals ISCO-3 Level**

The 2018 scholarship figures show that the technician and associate professionals category accounts for 8% of current awards. It is planned for this proportion to increase to 28% by 2030 in response to the clear and continuing demand for technicians and associate professionals in the economy. In addition to an increasing share it will be necessary to adjust the proportions attached to various occupational categories at the ISCO 3 level.

A clear example is in the ship and aircraft controllers and technicians group which currently account for 45% of all the technician and associate professional awards. The 21 awardees in this group are all undertaking pilot training. During consultations associated with the development of this Plan, a number of references were made about the existence of unemployed pilots 'pushing trolleys at the airport'. Again, this brings into question the inefficiencies associated with a lack of return on scholarship investments if awardees are not able to find employment in their chosen field. In addition, the comparatively high cost of pilot training further exacerbates any measure of inefficiency if a trained pilot is unemployed. An extreme example in the MoET scholarship figures shows one person commenced training in 2011 and to date the cost has been in excess of VUV6.9 million. Indeed, the average cost of international pilot training is just under VUV5 million compared to an average just over VUV1.4 million for all other awardees (excluding the pilots).

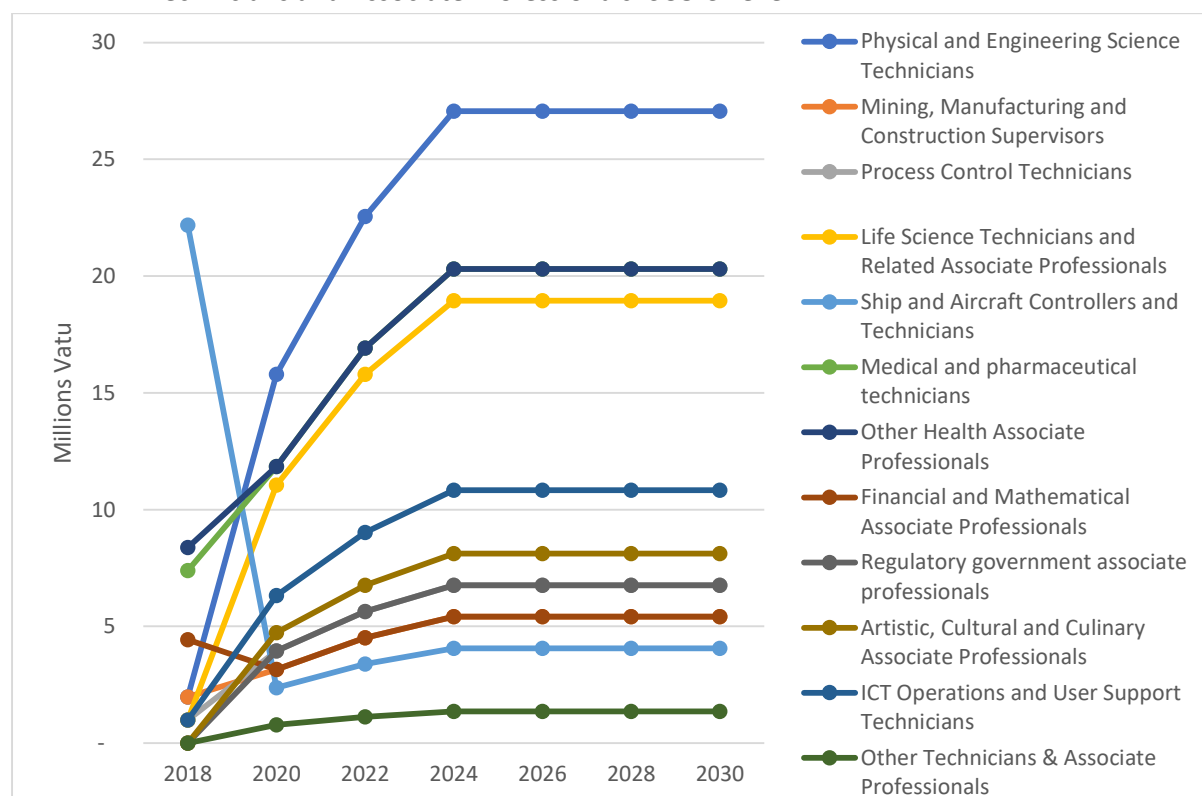
Table 4.13 shows the significant reduction in awards for pilot training being offset by increases in other categories - physical and engineering science, life science, regulatory government, and artistic, cultural and culinary (principally chefs) technicians and associate professionals.

Table 4.13 Proportional Share of International Scholarship Allocations (2018 -2030)
Technicians and Associate Professionals ISCO-3 Level

	2018	2020	2022	2024	2026	2028	2030
Physical and Engineering Science Technicians	4%	20%	20%	20%	20%	20%	20%
Mining, Manufacturing and Construction Supervisors	4%	4%	4%	4%	4%	4%	4%
Process Control Technicians	2%	5%	5%	5%	5%	5%	5%
Life Science Technicians and Related Assoc. Professionals	2%	14%	14%	14%	14%	14%	14%
Ship and Aircraft Controllers and Technicians	45%	3%	3%	3%	3%	3%	3%
Medical and pharmaceutical technicians	15%	15%	15%	15%	15%	15%	15%
Other Health Associate Professionals	17%	15%	15%	15%	15%	15%	15%
Financial and Mathematical Associate Professionals	9%	4%	4%	4%	4%	4%	4%
Regulatory government associate professionals	0%	5%	5%	5%	5%	5%	5%
Artistic, Cultural and Culinary Associate Professionals	0%	6%	6%	6%	6%	6%	6%
ICT Operations and User Support Technicians	2%	8%	8%	8%	8%	8%	8%
Other Technicians & Associate Professionals	0%	1%	1%	1%	1%	1%	1%
	100%	100%	100%	100%	100%	100%	100%

The financial impact (based on 2018 prices) of these realigned proportions is shown in Chart 4.8. While in some cases, such as in finance and mathematics, the proportion has gone down, the actual allocation in monetary terms goes up as an increasing proportion of the international scholarship budget is applied to technician and associate professional occupations.

Chart 4.8 Share of International Scholarship Budget 2018 -2030 in monetary terms (VUV million)
Technicians and Associate Professionals ISCO-3 Level



4.10.5 PSET Providers

The following analysis of PSET Provider budget and national scholarship allocations is derived from the proportional allocation for each provider drawn from the 2018 Budget Papers and the changing proportions of national and international scholarship allocations over the next twelve years. The analysis treats each PSET Provider as a standalone entity. Should the Government proceed to amalgamate institutions to establish a single Institute of Higher Education the respective funding allocations should continue to apply to the subsets of the newly created national institute.

With the realignment of the scholarship budget, national scholarships provide a new and expanding funding stream for PSET providers as they progressively increase their respective capability to deliver the standards required at trade, technician, and associate professional levels. As a minimum it is expected that VAC, VIT, VMC and VPC will offer accredited and recognised qualifications from VQF level 3 to level 5. The Bilingual Institute and VAC are already delivering programs to VQF level 5., while VCNE and VITE are in the process of offering degree programs at VQF level 7.

Table 4.14 shows the proposed share of annual budget appropriations based on 2018 prices. It does not include the potential revenue from national scholarships. To a large extent, the relative shares of the annual appropriations is consistent with the 2018 breakdown. Over time, the respective proportions allocated to VCNE and VITE are set to decline once the initial high demand for nurses

and teachers is tapering off. As will be seen, in every case, the combined value of the annual appropriations and national scholarship revenue will mean total allocations to each institute increase to the point where they are well above 2018 levels by the year 2030.

Table 4.14 Proportional Share of Annual PSET Provider Budget Appropriations (2018 - 2030)

	2018	2020	2022	2024	2026	2028	2030
Agriculture College (VAC)	14%	14%	14%	14.0%	14.0%	14%	14%
Bilingual Higher Education Institute	6%	7%	8%	8.0%	8.0%	8%	8%
College of Nursing Education (VCNE)	30%	30%	27%	26.0%	25.0%	25%	25%
Institute of Technology (VIT)	18%	19%	19%	18.5%	18.5%	19%	19%
Institute of Teacher Education (VITE)	18%	18%	18%	17.0%	17.0%	16%	16%
Maritime College (VMC)	7%	7%	8%	8.5%	9.0%	10%	10%
Police College (VPC)	6%	6%	6%	8.0%	8.5%	9%	10%
	100%	100%	100%	100%	100%	100%	100%

In 2018, the Agriculture College and the Bilingual Institute are both delivering programs funded through national scholarships. Their respective share of national scholarship revenue is initially planned to fall below 2018 levels to enable much larger shares for VCNE and VITE, both with significant responsibilities to ease nurse and teacher shortages. As the demand for qualified nurses and teachers is progressively reduced, so too does the VCNE and VITE share of the national scholarship revenue decrease while the respective shares of other PSET providers, other than VPC, increases. It is expected that VPC will continue to be funded through annual budget appropriations as shown in Table 4.14 above.

It is important to note that while respective shares of national scholarship revenue changes, the annual increase in funds allocated to national scholarships means that in monetary terms within a few years all providers are receiving increased overall allocations compared to their 2018 baseline.

Table 4.15 Proportional Share of National Scholarship Allocations (2018 - 2030)

	2018	2020	2022	2024	2026	2028	2030
Agriculture College (VAC)	73%	20%	18%	17%	17%	18%	19%
Bilingual Higher Education Institute	27%	9%	10%	11%	12%	14%	15%
College of Nursing Education (VCNE)	0%	27%	30%	31%	30%	28%	26%
Institute of Technology (VIT)	0%	12%	12%	13%	14%	16%	18%
Institute of Teacher Education (VITE)	0%	30%	28%	26%	24%	21%	18%
Maritime College (VMC)	0%	2%	2%	2%	3%	3%	4%
Police College (VPC)	0%	0%	0%	0%	0%	0%	0%
	100%	100%	100%	100%	100%	100%	100%

The following three charts provide an indication (in monetary terms) of the effect of the respective proportions shown in Tables 4.14 and 4.15 on annual budget appropriations and annual national scholarship allocations for each PSET Provider. Comments in relation to funding for each individual institute follow the charts.

Chart 4.9 Annual budget appropriations by PSET Provider (2018 – 2030)

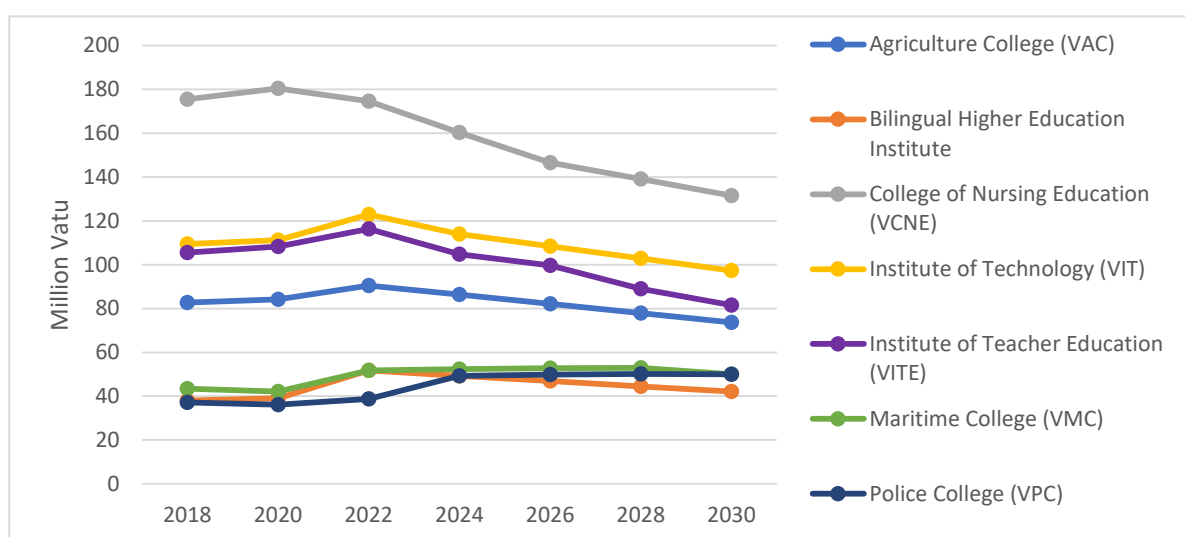


Chart 4.10 Annual National Scholarship Allocations by PSET Provider (2018 – 2030)

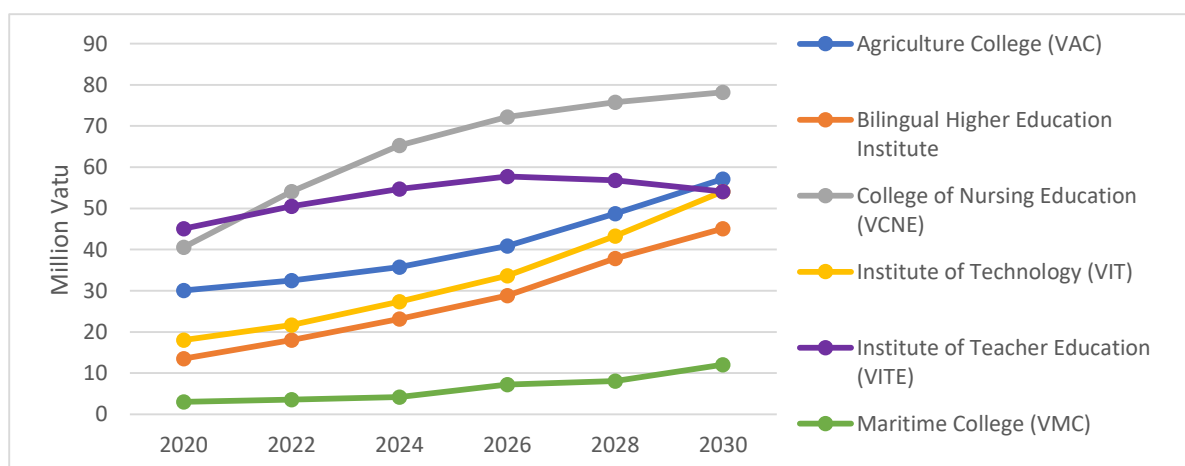
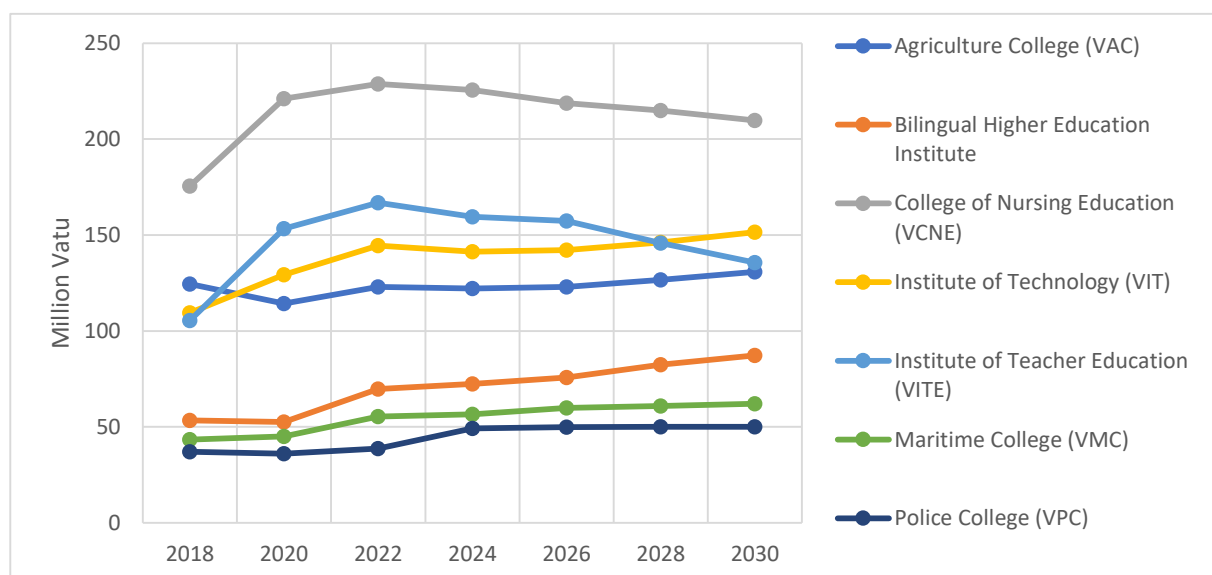


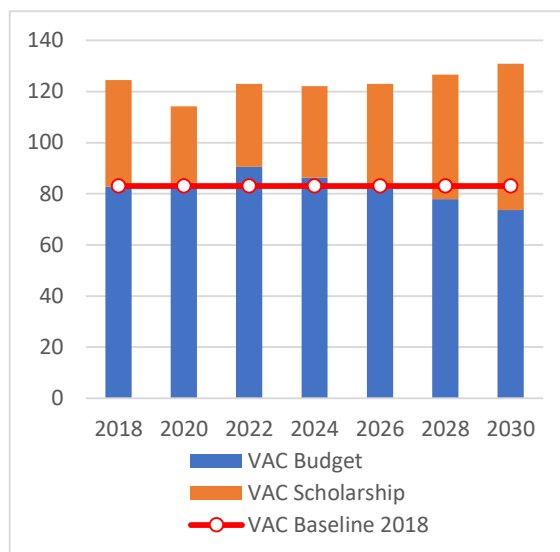
Chart 4.11 Annual Combined Budget Appropriation and National Scholarship Allocations by PSET Provider (2018 – 2030)



Agriculture College (VAC)

The commencement of national scholarships in 2018 establishes a firm base for the VAC for a continuing revenue stream well in advance of its 2018 Budget Appropriation. Increasing levels of scholarship revenue will off set slight declines in the budget appropriation in the latter part of the decade.

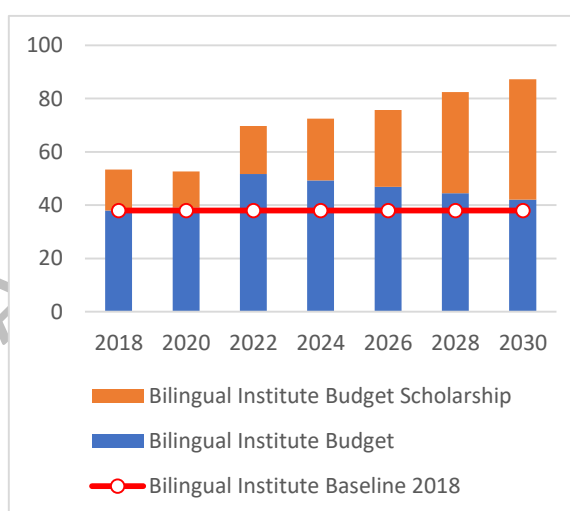
A clear purpose for national scholarships to the VAC is to support productive sector expansion and strengthened rural communities.



Bilingual Higher Education Institute

In its infancy, the Bilingual Higher Education Institute will have continuing strong growth in its revenue base, principally through increasing scholarship revenue.

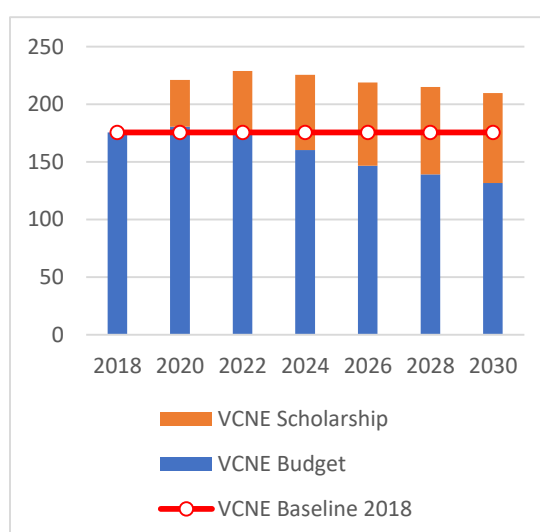
The proportionally high level of national scholarship support is in recognition that, in its establishment phase, it will require seed funding.



College of Nursing Education (VCNE)

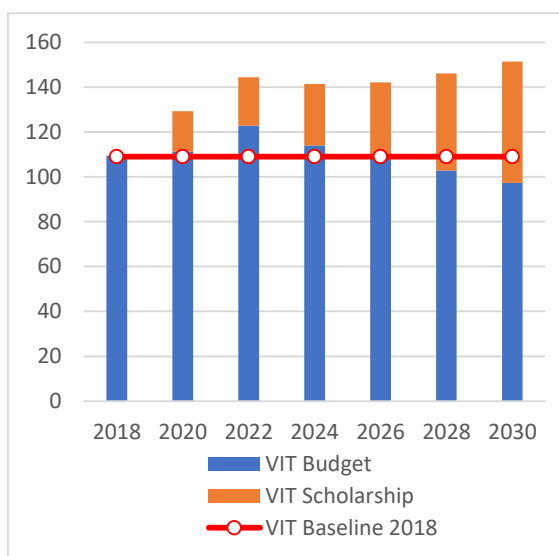
VCNE requires substantial support to increase its capacity to train greater numbers of nurses than is currently possible. Increasing the number of nurse educators to enable the delivery of the degree program is an important element of International scholarship funding.

Equally, a significant proportion of national scholarships should support greater numbers of nurses graduating from VCNE.



Institute of Technology (VIT)

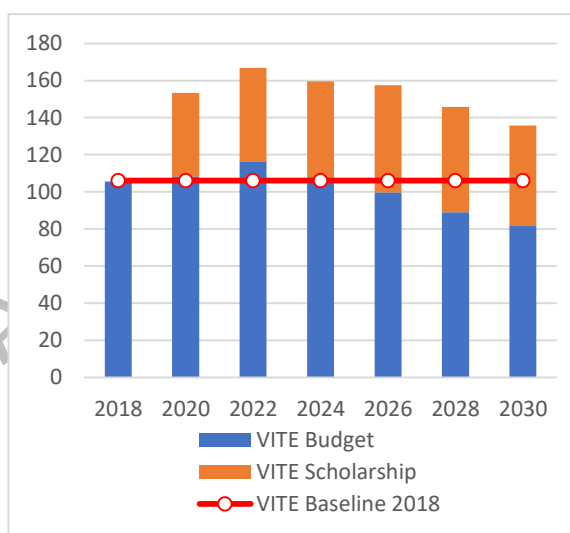
It is essential that VIT makes increased commitment to raising the standard of its qualifications to Certificate 3 level and above in order for it to access national scholarship funding. If it does so there will be considerable opportunity to increase its revenue base well above current levels.



Institute of Teacher Education (VITE)

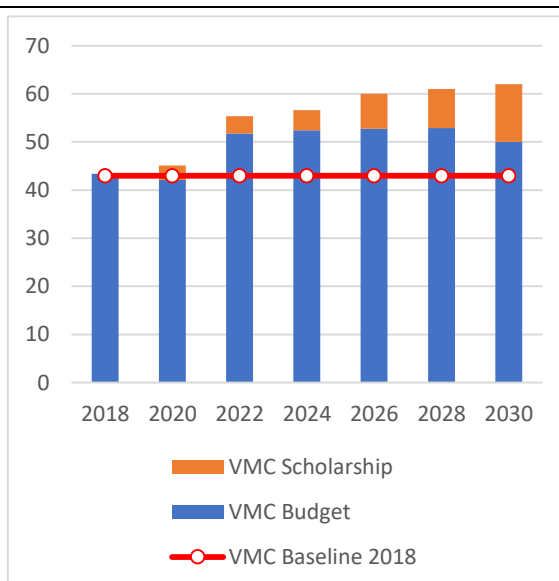
The large number of teacher vacancies and the relatively low level of qualified teachers it is imperative that VITE has additional capacity to train more teachers.

The critical concern, related to student entry levels to post-school courses, needs to be addressed through significant improvements in the primary and secondary school sectors.



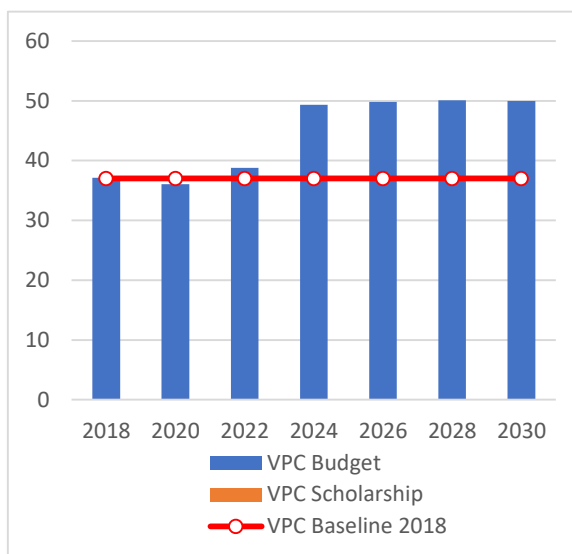
Maritime College (VMC)

VMC should see a steady increase in its annual appropriation and subject to anticipated growth in demand for STCW qualified graduates, it should attract increasing levels of national scholarships.



Police College (VPC)

An increasing proportion of budget appropriations should be available after 2022 as other PSET providers become increasingly funded through the national scholarship program.



4.10.6 PSET Providers –Private

The NSDP recognises that there are limited Government resources and the need to foster strong partnerships with civil society, churches, community based groups, NGOs, and the private sector to support basic service delivery.

There are already two private sector PSET providers currently operating in Vanuatu. These providers have demonstrated a clear understanding of skill demand which is reflected in the nature and level of the courses that they have had already accredited. As Table 4.6 demonstrates most courses are commensurate with the skills standards that are in demand at Certificate 3 and above. They are also in high demand areas such as ICT and engineering (electrical and mechanical). The extent to which their graduates find employment will be an important incentive for others to enrol in these private PSET Providers course.

This is of significant benefit to the Government in that it reduces the need for the Government to invest in these types of courses through public PSET providers and provides a real and practical example of how effective public and private partnerships might work.

Table 4.16 Private PSET Provider Accredited Courses by VQF level

	VQF Level	Accredited
Certificate 1 Computing (Operations)	1	✓
Certificate 2 Computing Support (software/ hardware)	2	✓
Certificate 3 Computing Support (Hardware)	3	✓
Certificate 3 Computing Support (networking)	3	✓
Advance Diploma Information Systems	6	✓
Certificate 4 Electrical Engineering (Installation and Maintenance)	4	✓
Certificate 4 Mechanical Engineering (RAC)	4	✓

As these, private providers are delivering courses which are consistent with the priority courses identified to attract national scholarship funding, they should also be supported through national scholarship funding. There is clear precedent for the application of scholarship funds to private

providers in the international scholarship program where there is substantial investment in pilot training through private aviation training organisations.

4.10.7 PSET Providers –Rural Training Centres

The NHRDP has advocated for Public PSET Providers to elevate their course offerings to a minimum of Certificate 3. This then raises the question about the delivery of Certificate 1 and 2 courses. Since the closure of the Vanuatu Rural Development Training Centre Association (VRDTCA) it is hard to get current data but on previous estimates there over 35 rural training centres located throughout the country, often in remote areas. Many of these centres fall under the umbrella of Church organisations and provide second chance learning opportunities for those that have had limited access to secondary education. A number of RTCs are actively pursuing the accreditation of their courses in recognition that their graduates, on completion, will not only have acquired skills to better service their local communities but they will also have a qualification that will provide a pathway to further education and training.

Table 4.17 shows the results from the RTCs that responded to the PSET Provider survey. It is important that the Government supports this trend toward accreditation through incentive based funding that rewards RTCs who actively pursue course accreditation at VQF levels 1 and 2.

Table 4.17 Rural Training Centre Courses by type, VQF level and accreditation status

	VQF Level 1		VQF Level 2	
	Accredited	Non-Accredited	Accredited	Non-Accredited
Automotive Trades	2	2	-	1
Agriculture	1	-	-	-
Construction & Joinery	3	5	-	1
Tourism & Hospitality	3	4	-	2
	9	11	-	4

There are numerous capacity constraints that have hindered RTCs in their efforts to have courses accredited. To address these constraints, the VQA has assisted with quality management system (QMS) development. The MoET Tertiary Education Directorate (TED) is also actively providing support to RTCs through quality audits and the preparation of interventions to assist RTCs meet the required quality standards for course accreditation. Recently the VQA has allowed for the development of standard accredited courses which means that individual RTCs are no longer obliged to develop their own courses for accreditation – they now only have to demonstrate through the Provider Registration process that they have the capacity to deliver the course to the required standards.

Continuing support through TED and VQA budget allocations is needed to enable increased availability of accredited Certificate 2 and 3 courses throughout the network of RTCs.

5. FURTHER RECOMMENDATIONS

1. Scholarships

- a. That the award of international and national scholarships be demand driven - directly linked to the NHRDP and any emerging areas of skill shortages and gaps identified in regular labour market research undertaken by the Department of Labour (see Recommendation 6).
- b. That to an increasing extent, scholarships are awarded for study/training in Vanuatu rather than overseas, provided that a national provider has the demonstrated capacity to deliver to the required qualification standard.
- c. That overall PSET investments by Government (including current scholarship allocations) include performance-based funding approaches to provide incentive for public and private providers to improve their standards to the level required for scholarship delivery.
- d. That the current emphasis on degree and post-graduate degree scholarship awards be reduced to enable increasing numbers of scholarships at the certificate and diploma levels in line with industry skill demands as identified in the NHRDP.
- e. That the growth and strength of private PSET providers in Vanuatu be supported through the allocation of scholarships for qualifications that are consistent with the NHRDP and are not available through public providers.
- f. That triennial impact evaluations of the scholarship program be undertaken to measure outcomes and to inform ongoing review of the NHRDP and adjustments to award criteria.

2. Institute of Higher Education

- a. That the draft PSET Act to facilitate the potential merger of public PSET Providers in preparation for the possible establishment of an **Institute of Higher Education** be reviewed to ensure its wording and objectives are consistent with the NHRDP.
- b. That, following the review and the incorporation of NHRDP considerations, the proposed PSET Act be supported.
- c. That an **Institute of Higher Education** is established with each of the merged institutes becoming schools or departments of a semi-autonomous statutory authority accountable to the Minister of Education and Training through a Board of Directors.
- d. That in the mid-term the **Institute of Higher Education** take on the form of a polytechnic rather than a university, but with a vision to evolve into a university in the longer term.
- e. That in time, the Vanuatu Institute of Public Administration (VIPAM) be incorporated into the Institute of Higher Education as a separate school or department with specific responsibilities for pre-service and in-service management training for both the public and private sector.
- f. That the Board of the **Institute of Higher Education** has the power to appoint a Chief Executive Officer who under Board delegation would be responsible for the day to day operations of the Institute, including the contracting and performance management of staff.
- g. That other than the delivery of teacher and nurse degree programs, the **Institute of Higher Education** focus its resources on the delivery of technician and associate professional courses consistent with the NHRDP skill demand analysis.
- h. That budget allocations for the effective running of the **Institute of Higher Education** include a performance-based component conditional on the achievement of specific targets linked to the NHRDP and national development objectives.

- i. That the **Institute of Higher Education** has the right to supplement its budget allocation with revenue derived from sale of education and training services to the private sector, as well as from student fees and other sources.

3. PSET Sector Funding

- a. That funding to establish and maintain the **Institute of Higher Education** be derived from the sum of existing appropriations of the Public PSET Providers plus an increasing share of overall scholarships allocations for delivery of scholarships in Vanuatu.
- b. That any additional funding available, together with efficiencies arising from a single administration be invested in:
 - i. Setting the CEO remuneration at an executive level in order to attract the best possible candidates
 - ii. Setting staff contract remuneration at levels that would attract the best candidates out of industry, the public sector and other higher education providers
 - iii. Significant levels of in-service professional development for all existing staff that are contracted to the Institute
 - iv. Attractive redundancy packages for existing staff who are no longer required by the Institute
 - v. Improved facilities including ICT systems
 - vi. Improved recurrent budget to fund adequate levels of utilities, consumables and learning resources
- c. That performance-based funding criteria have a focus on meeting access and inclusion targets – particularly in rural and remote areas.
- d. That performance-based funding criteria include revenue targets derived from sale of education and training services to the private sector through flexible workplace delivery.
- e. That performance-based funding criteria include targets for the accreditation and delivery of qualifications at VQF level three and above.
- f. That PSET Providers establish working partnerships with industry that facilitate the placement of instructors on work experience to improve their currency and gain a better understanding of industry requirements.

4. Tertiary Education Directorate

- a. That the Tertiary Education Directorate (TED) actively pursues strategies to enable the establishment of Provincial Skills Centres in Sanma and Penama.
- b. That TED promotes and achieves through successive budget cycles the filling of all Provincial Skill Centre positions in six provinces.
- c. That TED, note the skills shortages and skills gaps identified in the NHRDP and support the provision of professional development programs for current PSET instructors in these priority areas to ensure they have the skills to meet industry standards.
- d. That TED undertake capacity audits of rural training centres (RTC) and implement professional development and other supportive activities to assist RTCs meet the quality standards for the delivery of VQF level 1 and 2 accredited qualifications.
- e. That TED play a major supportive role in the implementation of the National Adult Language, Literacy and Numeracy Strategy (NALLN) once adopted by Government.
- f. That TED be renamed the Post School Education and Training (PSET) Directorate.

5. Vanuatu Qualifications Authority

- a. That the VQA Board actively pursue its mandate, prescribed under law (VQA Act 2014), to be accountable to the Minister of Education and Training for the performance of the PSET system in accordance with national PSET Policy and in line with the NHRDP.
- b. That the VQA Board, comprised principally of productive sector and private sector representatives, ensure the PSET system remains demand driven and focused on national development objectives.
- c. That the VQA Board determine criteria for performance-based funding in line with the NHRDP and national PSET Policy and be responsible for performance payment approvals.
- d. That the National Scholarship Training Board (NTSB) appointment instructions (21 August 2018) be revised to increase productive sector representation by the appointment of relevant VQA Board members who represent the tourism and agriculture sectors.
- e. That given the potential for inefficient overlap of responsibilities and to ensure a consistent approach to NHRDP implementation, by 2020 the functions of the NTSB should be transferred to the VQA Board, given its level of accountability, and its pivotal position in leading PSET reform.
- f. That without compromising quality standards, the VQA continue to examine ways that regulations pertaining to PSET Provider registration, course accreditation and quality audits can be simplified.
- g. That the processes required to accredit VQF levels 1 and 2, be streamlined and made more accessible, particularly for rural training centres.

6 Labour Market Data

- a. That the Office of the Government Chief Information Officer (OGCIO) works closely with the Department of Labour (DoL) and the National Statistics Office (VNSO) to develop and implement an effective web-based labour market system (LMIS) based on ISCO classifications, that, in addition to labour market data, links to VNSO survey processes.
- b. That the VNSO in all surveys that include employment and labour market questions, classify occupations to the ISCO 3-digit level as a minimum.
- c. That the DoL conduct comprehensive labour market research on a triennial basis (as a minimum) in collaboration with key industry groups such as the Vanuatu Chamber of Commerce and Industry and other professional associations.
- d. That the web-based LMIS facilitates data input from industry on a routine basis to supplement and keep current labour market data between triennial surveys.
- e. That the labour market data be provided to key agencies such as the VQA, Tertiary Education Directorate and the **Institute of Higher Education** (once established) to ensure course development and accreditation is aligned to industry and national development priorities, and to ensure all investments in PSET are similarly aligned.
- f. That the LMIS facilitates career counselling and employment by providing extensive information on occupational options and employment vacancies posted by employers.

7. Public Sector Data

- a. That the Public Service Commission works closely with the Office of the Government Chief Information Officer (OGCIO) to develop a centralised and standard system for capturing and maintaining all relevant public sector personnel data.

ANNEX 1 - ON EVERY PAGE...

On every page of the **National Sustainable Development Plan (NSDP) 2016-2030**⁵ there are implications for national human resource development. If NSDP objectives are to be achieved, it will be critical to establish clear priorities for investment in both institutional and workplace education and training that is better aligned to occupational requirements in both the private and public sectors. This will require the identification of the occupational categories that are most relevant to the NSDP's economic and social objectives and in parallel the relevant qualifications and skill sets that relate to each occupational category.

1.1. International Standard Classification of Occupations

The *International Standard Classification of Occupations (ISCO)* is a four-level taxonomy of occupations developed by the International Labour Organisation (ILO)⁶. At the one-digit level there are ten occupational categories as shown in Table A1.1.

Table A1.1: ISCO Occupational Categories to 1-digit level

ISCO Class	Occupational Category	ISCO Class	Occupational Category
1	Managers	6	Agricultural, Forestry & Fishery Workers
2	Professionals	7	Craft & Related Trades Workers
3	Technicians & Associate Professionals	8	Plant and Machine Operators & Assemblers
4	Clerical Support Workers	9	Elementary Occupations
5	Services & Sales Workers	0	Armed Forces Occupations

The 1-digit level is useful for aggregating results into a succinct form for presentation but at this generalised level it is difficult to pin-point specific occupations. Each subsequent level provides more descriptive pointers to occupational types. For the purposes of the NHRDP, analysis of occupations relevant to the NSDP has been undertaken to the third digit level which for the most part provides an adequate level of specificity for guiding education and training investments. However, in some cases where there is still a degree of generality at the third digit level, analysis has been undertaken to the fourth digit level.

To illustrate, Table A1.2 below takes a value chain approach and shows the application of a third level ISCO classification to the Tourism Industry.

The first digit in each classification corresponds to the relevant 1-digit level shown in Table 1.1. The second and third digits provide more specific details as to the type of manager or professional etcetera. For example, in the classification '141' the second digit '4' refers to a broader classification of managers - in this case *Hospitality, Retail and Other Services Managers*. The third digit breaks this down further with '1' referring specifically to *Hotel and Restaurant Managers*. If it was necessary to get further specificity, the analysis could go to the fourth digit level which would show *1411 Hotel Manager* and *1412 Restaurant Manager*.

⁵ Government of Vanuatu (2016), Vanuatu 2030, The People's Plan, National Sustainable Development Plan 2016 to 2030

⁶ International Labour Organization (2018), "ISCO-08 Structure, Index Correspondence with ISCO-88". Accessed 26 July 2018 <http://www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm>

Table A1.2: Relevant Tourism Sector Occupational Categories to ISCO 3-digit level

ISCO Class	Occupational Category	ISCO Class	Occupational Category
141	Hotel & restaurant managers	514	Hairdressers, beauticians & related workers
142	Retail & wholesale trade managers	515	Building & housekeeping supervisors
242	Administration professionals	516	Other personal services workers
243	Sales, marketing & public relations professionals	611	Market gardeners and crop growers
264	Authors, journalists & linguists	612	Animal producers
265	Creative & performing artists	613	Mixed crop and animal producers
332	Sales and purchasing agents & brokers	621	Forestry and related workers
313	Process control technicians	622	Fishery workers, hunters and trappers
314	Life science technicians & related associate professionals	731	Handicraft workers
315	Ship & aircraft controllers & technicians	741	Electrical equipment installers & repairers
333	Business services agents	751	Food processing & related trades workers
343	Artistic, Cultural and Culinary Associate Professionals	832	Car, van and motorcycle drivers
511	Travel attendants, conductors & guides	833	Heavy truck and bus drivers
512	Cooks	834	Ships' deck crews & related workers
513	Waiters & bartenders		

The 3-digit '315' and '343' classifications shown in Table A1.2 are both good examples of where it might be necessary to consider more specific analysis to the fourth digit level.

Table A1.3: Occupational Categories to ISCO 4-digit level

ISCO 315	Ship & aircraft controllers & technicians	ISCO 343	Artistic, Cultural and Culinary Associate Professionals
3151	Ships' Engineers	3431	Photographers
3152	Ships' Deck Officers and Pilots	3432	Interior Designers and Decorators
3153	Aircraft Pilots and Related Associate Professionals	3433	Gallery, Museum and Library Technicians
3154	Air Traffic Controllers	3434	Chefs
3155	Air Traffic Safety Electronics Technicians	3435	Other Artistic and Cultural Associate Professionals

The ISCO approach to occupational classification has been applied in each of the Annexes in order to establish a coherent and common framework for the analysis of private and public sector skill demand aligned to national development objectives, and to better inform national investments in school and post school education and training.

1.2. National Sustainable Development Plan 2016-2030 Occupational requirements

The achievement of national sustainable objectives will require a wide range of occupations with associated qualifications and skill sets. Occupational profiling, as illustrated in Table 4.1, when applied to each of the productive sectors provides a basis for specific and ongoing labour market research to determine perceived skill shortages and gaps. This form of analysis also provides a mechanism to identify and correlate generic occupational types across sectors, for example general management, finance, and accounting skills.

This approach has been applied to each NSDP objective. For example, Table A1.3 illustrates the nature of the occupational requirements for the delivery of NSDP Objective ECO 4.3. Taking a value chain approach, it highlights the need for a broad range of skills including market and product research, production, value addition processing, sales and distribution, finance, administration and management.

Table A1.3: Relevant Occupations to NSDP Objective Economy 4.3

NSDP Objective	ISCO	Occupational Category
ECO 4.3	121	Business services and administration managers
Increase production and processing of niche commodities, and value addition to commodities in which Vanuatu enjoys a comparative advantage	122	Sales, marketing and development managers
	241	Finance professionals
	242	Administration professionals
	243	Sales, marketing and public relations professionals
	313	Process control technicians
	314	Life science technicians and related associate professionals
	611	Market gardeners and crop growers
	612	Animal producers
	613	Mixed crop and animal producers
	621	Forestry and related workers
	622	Fishery workers, hunters and trappers
	751	Food processing and related trades workers
	752	Wood treaters, cabinet-makers and related trades workers
	753	Garment and related trades workers
	754	Other craft and related workers

Following this type of analysis across all NSDP objectives, relevant occupational categories have been aggregated to provide a broad perspective as to which occupations are more commonly required. This analysis takes no account of existing skill supply. It simply, provides a baseline of priority occupational categories that may be required to deliver NSDP objectives.

The results in Table A1.4 and Chart A1.1 below show there is a strong need across each NSDP Pillar for higher level ISCO classified occupations – Managers, Professionals, and Technician/Associate Professionals. In other words, there is strong need for ni-Vanuatu workers with these higher-level skills to support the achievement of NSDP objectives.

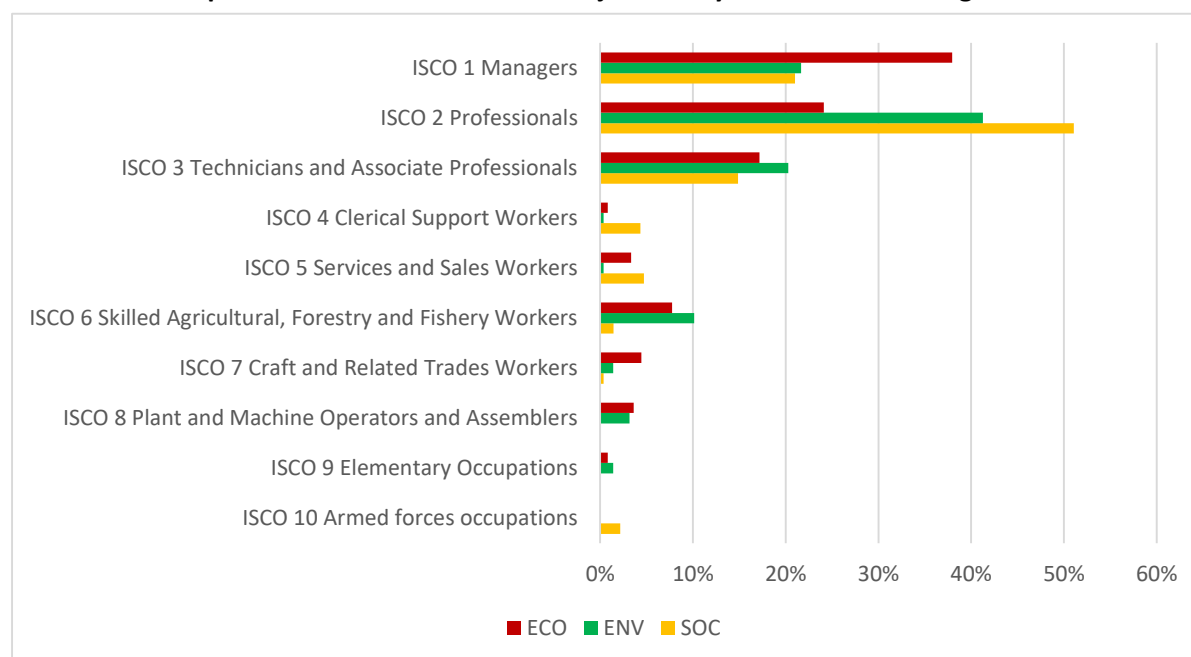
Given the generic requirement for management, it is understandable that management occupations feature frequently in relation to many NSDP objectives. Across the three NSDP Pillars 28% of all occupational references related to ISCO Class 1. However, there are differences between Pillars and further analysis is needed to the 3rd and 4th digit levels to explain the comparatively higher level ISCO

1 requirement in the Economy Pillar (see Table A1.5 below). Similarly, the concentration of occupational requirements at the ISCO 2 Professional and ISCO 3 Technician and Associate Professional levels in comparison to all other occupational types needs more detailed analysis to explain the different weighting given for each NSDP Pillar.

Table A1.4 Occupational References to NSDP Objectives by Pillars at ISCO 1-Digit Level

	SOC n=276	ENV n=286	ECO n=361	All n=923
ISCO 1 Managers	21%	22%	38%	28%
ISCO 2 Professionals	51%	41%	24%	37%
ISCO 3 Technicians and Associate Professionals	15%	20%	17%	17%
ISCO 4 Clerical Support Workers	4%	0%	1%	2%
ISCO 5 Services and Sales Workers	5%	0%	3%	3%
ISCO 6 Skilled Agricultural, Forestry and Fishery Workers	1%	10%	8%	7%
ISCO 7 Craft and Related Trades Workers	0%	1%	4%	2%
ISCO 8 Plant and Machine Operators and Assemblers	0%	3%	4%	2%
ISCO 9 Elementary Occupations	0%	1%	1%	1%
ISCO 10 Armed forces occupations	2%	0%	0%	1%

Chart A1.1 Occupational References to NSDP Objectives by Pillars at ISCO 1-Digit Level



It is important to stress, that this type of analysis provides only an indication of the nature of the occupational requirements that are relevant to NSDP objectives. The results do not establish occupational priorities from a NHRDP perspective. For example, more generic type occupations such as management will naturally be relevant to a larger number of NSDP objectives than more specific occupations such as nursing. However, the results do provide a basis for further analysis and the search for corroborative evidence.

An explanation for the higher than average number of references in the Economy Pillar for Manager Occupations is provided in Table A1.5. It shows that, in addition to the more generic senior

management requirements there is also a need for many different types of technical managers to deliver NSDP Economy Pillar objectives.

Table A1.5 NSDP Economy Pillar Manager References at 3-Digit Level (# of References)

Management Occupations	#	Management Occupations	#
111 Legislators and senior officials	25	133 Information and communications technology service managers	7
112 Managing directors and chief executives	25	134 Professional Services Managers	14
121 Business services and administration managers	25	141 Hotel and restaurant managers	5
122 Sales, marketing & development managers	11	142 Retail and wholesale trade managers	8
131 Production managers in agriculture, forestry and fisheries	8	143 Other services managers	3
132 Manufacturing, mining, construction, and distribution managers	6		

Similarly, the higher than average number of references to Professional Occupations in the Society Pillar can be explained by the inherent professional nature of occupations in the Health and Education sectors.

Table A1.6 NSDP Society Pillar Professionals References at 3-Digit Level (# of References)

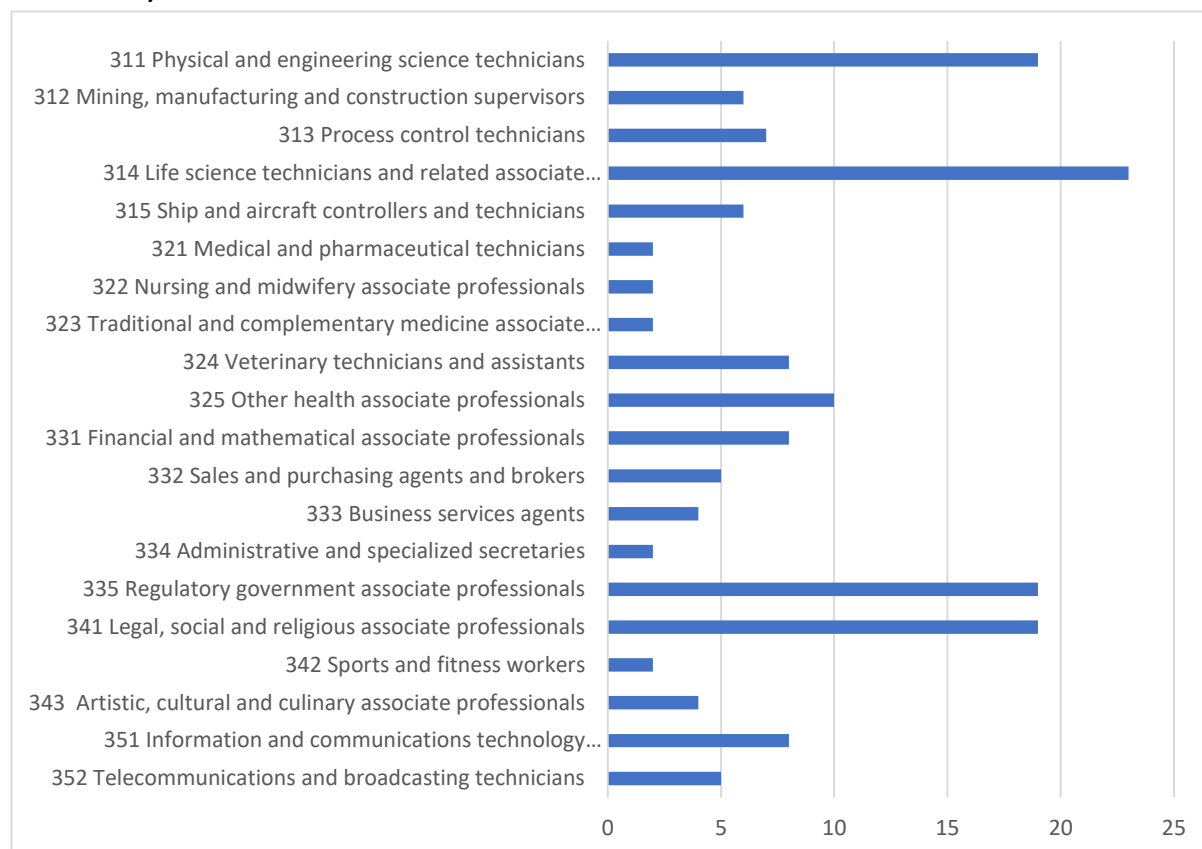
Professional Occupations	#	Professional Occupations	#
212 Mathematicians, actuaries and statisticians	2	234 Primary school and early childhood teachers	8
213 Life science professionals	2	235 Other teaching professionals	14
216 Architects, planners, surveyors & designers	3	241 Finance professionals	9
221 Medical doctors	3	242 Administration professionals	10
222 Nursing and midwifery professionals	3	251 Software and applications developers and analysts	11
223 Traditional and complementary medicine professionals	4	252 Database and network professionals	11
224 Paramedical practitioners	3	261 Legal professionals	5
226 Other health professionals	8	262 Librarians, archivists and curators	3
231 University and higher education teachers	1 2	263 Social and religious professionals	7
232 Vocational education teachers	9	264 Authors, journalists and linguists	4
233 Secondary education teachers	8	265 Creative and performing artists	2

The nature of Technician and Associate Professional (ISCO 3) occupational references across all NSDP Pillars is shown in Chart A1.2 below. Across the range of occupational categories, Life Science Technicians and related Associate Professionals are relevant to the largest number of NSDP objectives. In addition, Physical and Engineering Science Technicians, Regulatory Government Associate Professionals and Legal, Social and Religious Associate Professionals are also occupational categories that are highly relevant to a wide range of NSDP objectives.

Again, these results need to be approached cautiously. They do not establish priority occupational types nor do they accurately reflect the numbers of workers required. As is clear in Chart A1.2, the low number of references to Nursing and Midwifery Associate Professionals is not, without

corroborative evidence, indicative of a low priority. This type of analysis simply provides the first clues as to which occupational types need further consideration in the context of achieving NSDP objectives.

Chart A1.2 NSDP Technician and Associate Professionals References at 3-Digit Level (# of References)



4.3 Annex Summary

- There are human resource development implications on every page of the National Sustainable Development Plan 2016 – 2030 (NSDP).
- The delivery of NSDP Objectives will require ni-Vanuatu with relevant qualifications, knowledge and skills.
- The ILO International Standard Classification of Occupations (ISCO) is a highly valuable integrating tool that establishes a coherent and consistent framework for analysing and reporting of occupational types.
- An ISCO analysis of the NSDP occupational requirements to the 3-digit level provides a baseline for further research and corroborative evidence as to priority skill demands.
- Manager, professional, and technician and associate professional occupations are the more occupational requirements for the delivery of NSDP objectives.

ANNEX 2 - NATIONAL LABOUR MARKET

2.1. Demographic characteristics

2.1.1 Population distribution by gender/age

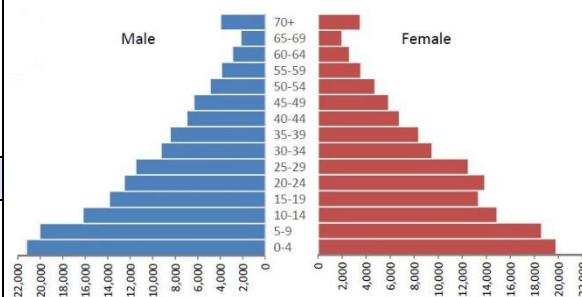
The last full Census was conducted in 2009, but the National Statistics Office (VNSO) conducted a mini-Census in 2016, the year after Tropical Cyclone Pam. The following high-level population data has been drawn from the mini-Census which reports an overall population growth rate of 2.3%.

Significantly, the data in Table A2.1 shows that 65% of the population are under the age of 29. With a continuing strong population growth rate, this large youthful base will be an ongoing characteristic of Vanuatu's demographic nature with clear implications for national human resource development planning.

Overall, the population is comprised of 50.6% males and 49.4% females. However, in the 15-49 age range the relative proportions are 49.1% male and 50.9% female. This is significant in the context that this age range represents 95% of the economically active population and that the relative proportions of those deemed economically active in the 2016 census were 62% male and 38% female in the private sector and 59% male and 41% female in the public sector. This is clearly a reflection of the impact of childbearing and societal norms related to family duties with higher proportions of females becoming economically inactive (in terms of census definitions). It is also a reflection that opportunities for women to re-enter employment or further education are limited.

Table A2.1 Population Distribution by gender and age cohort

Ages	Total	Male	Female
All ages	272,459	138,265	134,194
0-14	104,561	54,335	50,226
15-29	70,042	33,833	36,209
30-49	58,955	29,569	29,386
50+	32,997	17,200	15,484
	%	%	%
0-14	39	40	38
15-29	26	25	28
30-49	22	22	22
50 +	12	13	12



Source: 2016 Post TC Pan Mini Census Report Volume 1

2.1.2 Population distribution by geographic distribution – urban/rural

The population distribution between urban (Port Vila/Luganville) and rural areas shown in Table A2.2 below reveals that 3 in 4 ni-Vanuatu live in rural areas and that the gender split in each geographic location mirrors the total population distribution with 51% males and 49% females.

What is noticeable in urban areas is the population bulge in the age group 15- 29 and a corresponding dent across the same age range in rural areas. It is important to note that the two population charts are not to the same scale on the horizontal axis and therefore it is difficult to compare actual numbers involved. However, it is possible to compare the proportional differences and to note the variance from a normal distribution in both geographic locations. Section A2.1.3 considers these variances in more detail.

Table A2.2 Population Distribution by gender, age cohort and geographic location

Urban Population Distribution			Rural Population Distribution		
Total	Male	Female	Total	Male	Female
66,809	33,876	32,933	199,746	101,061	98,685

Source: 2016 Post TC Pan Mini Census Report Volume 1

2.1.3 Youth characteristics

For the purposes of the Census, youth is defined as those within the 15-29 age cohort. As outlined above there is a noticeable youth bulge in the urban areas; whereas the youth population is proportionately under-represented in rural areas. As shown in Table A2.3, the youth cohort nationally accounts for 26% of the total population but rises to 32% of the urban population and reduces to 24% of the rural population. These figures are reflective of urban drift driven by several factors including the search for employment, the need to access post school education and training and the need to access services which are available predominantly in Port Vila and Luganville.

Table A2.3 Youth Population in relation to Total Population by gender and region

Age Group	Total Population			Urban Population			Rural Population		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
15-29	70,042	33,833	36,209	21,271	10,403	10,868	48,771	23,430	25,341
15-29	26% of 272,459			32% of 66,809			24% of 199,746		

Source: 2016 Post TC Pan Mini Census Report Volume 1

As Table A2.4 shows, the national unemployment rate in Vanuatu as reported in the 2010 Household Income and Expenditure Survey (HIES) is relatively low at 4.4%. Disaggregated by gender, the unemployment rate corresponds to 4.9% and 3.7% for male and female, respectively.

Table A2.4 Youth unemployment in relation to total labour force unemployment by gender

Age Group	Total Labour Force			Males			Females		
	Total	Unemployed	Rate	Total	Unemployed	Rate	Total	Unemployed	Rate
All	102,110	4,460	4.4%	55,950	2,750	4.9%	46,160	1,710	3.7%
15-19	7,870	1,020	13%	4,090	430	11%	3,780	590	16%
20-24	12,660	1,460	12%	6,380	920	14%	6,280	540	9%
24-29	14,060	840	6%	7,130	610	9%	6,930	230	3%
Total	34,590	3,320	10%	17,600	1,960	11%	16,990	1,360	8%

Source: Household Income and Expenditure Survey (HIES) (VNSO 2010)

However, these figures disguise significant unemployment rates in urban areas where 11% of economically active males and 7.9% of economically active females were unemployed at the time of the 2010 HIES⁷. This compares to just 2.7% and 2.6% respectively for economically active males and females in rural areas.

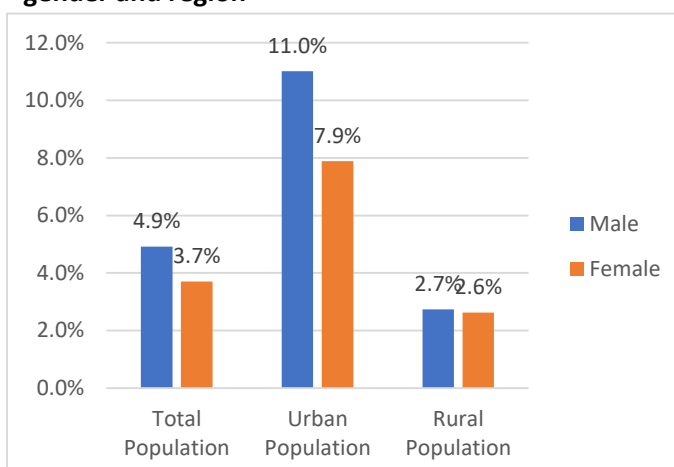
Closer examination of these figures reveals significantly higher unemployment rates for the youth cohort in both urban and rural areas. As Chart A2.2 shows over 39% of economically active males and over 30% of economically active females in the 15-19-year-old cohort are unemployed.

For 20-24-year-old urban youth the rates are lower but still very high at 26.5% and 17.6% respectively for males and females. The rates for 24-29-year-old urban youth are again lower than the younger cohorts but still considerably above the national rate.

Youth unemployment rates in rural areas are better in comparison to urban areas across each of the youth age cohorts but are comparatively higher than overall rural unemployment rates, except for females in the 24-29 age cohort.

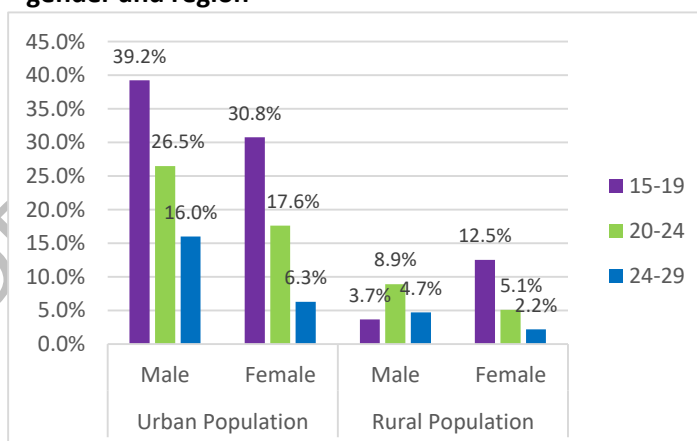
As indicated in Chart A2.3, youth unemployment rates are generally double the overall rates in their respective geographic region. For example, the female unemployment rate overall in rural areas is 2.6% compared to 5.8% for rural females in the 15-29 age cohort. A similar pattern is evident across both genders and both geographic areas.

Chart A2.1 National Unemployment Rates – by gender and region



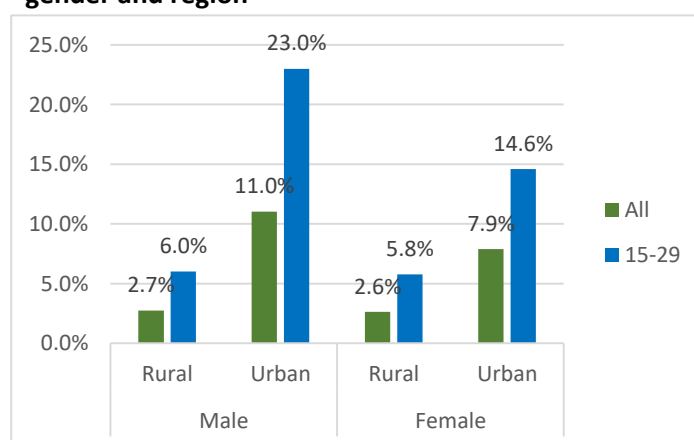
Source: Household Income and Expenditure Survey (HIES) 2010

Chart A2.2 Unemployment Rates – by age cohort, gender and region



Source: Household Income and Expenditure Survey (HIES) 2010

Chart A2.3 Overall Youth Unemployment Rates – by gender and region



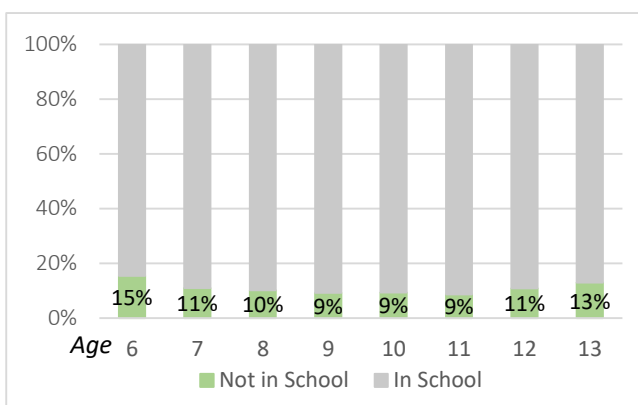
Source: Household Income and Expenditure Survey (HIES) 2010

⁷ This is the most recent age-related unemployment data available. The NSO is currently in the process of preparing a new survey from which it will be possible to analyse any shift in rates over the past 8 years.

2.1.4 Educational Attainment

The geographic distribution of the population has a clear impact on educational outcomes. For example, the 2009 census reports that at the time of the census, A2.7% of urban children between the ages of 6-13 were not currently attending school, whereas in rural areas this figure more than doubles to 12.6%. The 2016 mini Census as shown in Chart A2.4, while not providing an urban/rural break down, provides comparable overall figures from which a similar urban/rural division might be assumed.

Chart A2.4 School Attendance by Age Group



Source: 2016 Mini Census (VNSO)

Table A2.5, drawn from the 2009 Census, provides details of the educational attainment levels of the entire population. This data indicates that only 1 person in 3 has attained an education level beyond primary school and that only 1 person in 20 has post-secondary education. In rural areas the level of education attainment is even lower with less than 1 in 4 people having higher than primary level education and less than 1 in 30 people have a post-secondary qualification.

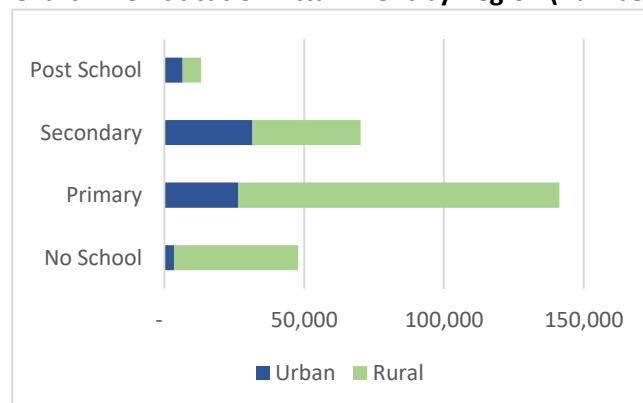
Table A2.5 Highest education qualification by gender and region (%)

Proportion of population aged 15 and older with:	Vanuatu			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
No education (never been to school)	17.2	15.4	19.0	5.0	4.7	5.3	21.7	19.5	23.9
Primary education	51.5	51.3	51.6	38.8	37.6	40.1	56.2	56.7	55.7
Secondary education	26.4	27.5	25.4	46.5	46.7	46.2	18.9	20.0	17.9
Tertiary education	3.8	4.3	3.2	7.7	8.7	6.8	2.3	2.7	1.9
Vocational/ professional qualification	1.2	1.5	0.9	2.0	2.4	1.6	0.9	1.1	0.6

Source: 2009 Census (VNSO)

By applying this percentage data to 2016 Census population figures the relative numbers in rural and urban areas at each level of educational attainment can be seen in Chart A2.5. On the assumption that the relative proportions of educational attainment levels have not changed significantly between the 2009 and 2016 Census, Chart A2.5 shows that out of a total population of 272,000 almost 50,000 ni-Vanuatu have never attended school and that a further 140,000 have only primary school level education.

Chart A2.5 Education Attainment by Region (number)



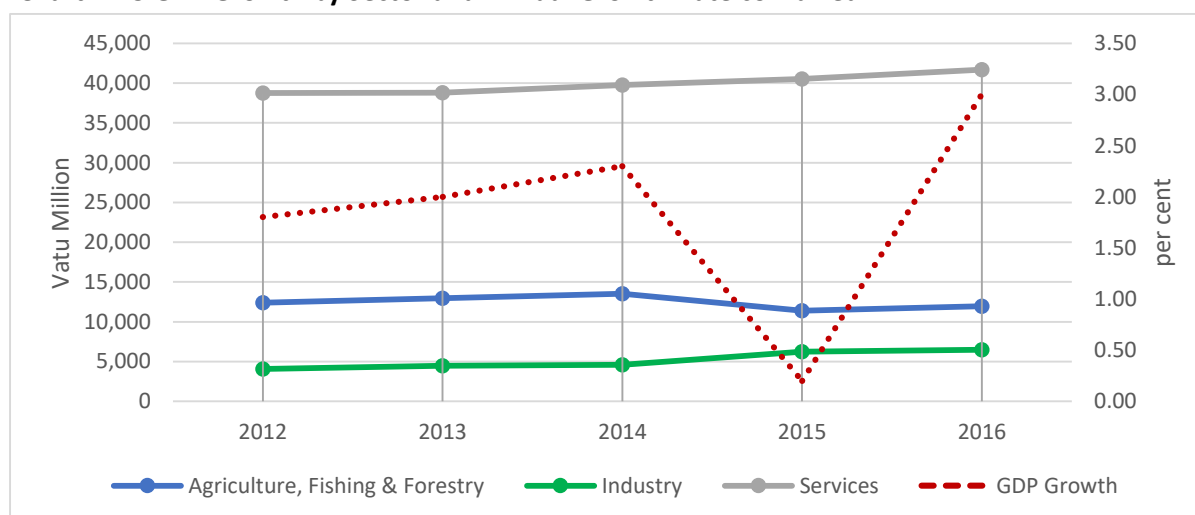
Annex 8 provides an extensive analysis of the school and post-school education and training system in Vanuatu and its capacity to respond to the human resource development demands embodied in the NSDP 2016 - 2030.

2.2. The Vanuatu economy

2.2.1 Gross Domestic Product (GDP)

The impact of Cyclone Pam in 2015 included a significant drop in annual GDP growth for the 2014-2015 year but the economy recovered well in the subsequent year with a GDP increase of 3.3 percentage points. Each of the principal economic sectors contributed to this increase with the strongest growth coming from the agriculture sector which increased 5.1% in the 2015-2016 year. The growth in the industry and service sectors for the corresponding period were 4.3% and 2.1% respectively. However, in monetary terms the Services Sector added VUV1.81 billion compared to VUV583 million for the Agriculture sector and VUV265 million for the industry sector.

Chart A2.5 GDP Growth by Sector and Annual Growth Rate combined

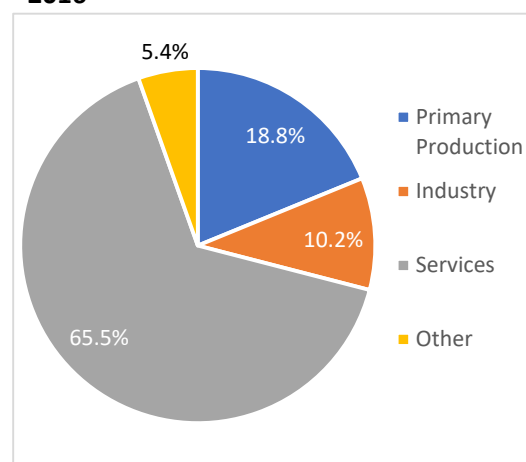


Source: Statistics Release: Gross Domestic Product 2016 (VNSO 2017)

Vanuatu has a Services led economy with almost two thirds of GDP coming from that sector in 2016. Primary production (agriculture, forestry and fisheries) contributed almost 19% of GDP while the Industry contribution was a little over 10%.

Across the Services Sector in 2016, the NSO reports growth in professional, scientific and technical services (18.3%), retail trade (12.3%), communication (6%), accommodation and food services (3.7%), government services (1.8%), real estate (3.6%), transport (1.3%), and finance and insurance (0.1%). Counterbalancing these growth figures the NSO reports over the same period decline in other wholesale trade (-21.4%), motor vehicles wholesale, retail trade and repair (-8.4 %), and education, health and recreation (-7.4%),

Chart A2.6 GDP Contribution by Sector - 2016



Source: Statistics Release: Gross Domestic Product 2016 (NSO 2017)

The highest growth areas in the primary production sector, were crop production (5.9 %), fishing (3.9%), animal production (2.6 %), and forestry (0.7 %). Given that crop production represents 80% of primary production output, it has made by far the greatest contribution to overall GDP growth from the primary production sector. Strong copra production growth and improved prices were the major elements in the sectors improving performance.

Growth in the Industry sector in 2016 was due primarily to increases in electricity and water (11.9%), manufacturing (predominantly export orientated) - 2.9%, and the predominant economic driver construction (2%).

The contribution of each sector and their respective sub sets is provided in Table A2.6 below. Crop production is the largest single contributor to GDP followed by retail trade and government services. Within the Industry Sector, construction and manufacturing are the more significant contributors.

Table A2.8 Gross Domestic Product by Sector 2016 (Constant Prices, 2006 Base Year)

Sector	Vatu Million	% of GDP
Primary Production		
Crop Production	9,577	11.0%
Animal Production	913	1.0%
Forestry	940	1.1%
Fishing	544	0.6%
	11,974	18.8%
Industry		
Construction	3,516	4.0%
Manufacturing	1,625	1.9%
Electricity and Water Supply	1,336	1.5%
Mining and Quarrying	19	0.0%
	6,496	10.2%
Services		
Retail Trade	8,395	13.2%
Government services	7,581	11.9%
Finance and Insurance	4,559	7.2%
Real Estate	5,136	8.1%
Information and Communication	4,112	6.5%
Accommodation and Food Services	2,925	4.6%
Other Wholesale Trade	2,152	3.4%
Transport	3,170	5.0%
Professional, Scientific, Technical, Adm/Services	1,930	3.0%
Education, Health, Recreation, and Other Services	984	1.5%
Motor vehicles Wholesale, Retail Trade, and Repair	766	1.2%
	41,710	65.60%
Plus Taxes less Subsidies on Products	5,803	9.1%
Less imputed Bank Service Charge	2,348	-3.7%
GDP	63,635	

Source: Statistics Release: Gross Domestic Product 2016 (VNSO 2017)

2.2.2 Trade

Vanuatu is a net importer where the value of imports consistently outweighs the value of exports. Chart A2.7 shows the monetary value of exports and imports and the trade balance deficit over the decade to 2016. Again, the impact of Cyclone Pam can be seen with imports far outstripping exports in 2015. The Balance of Trade recovered somewhat in 2016 but still not to the levels seen between 2011 and 2014. Two NSDP objectives indicate clearly the Government's intentions to improve the trade balance:

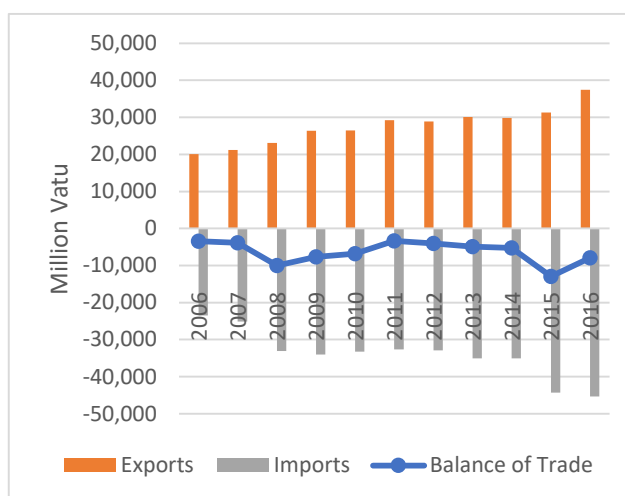
- ENV 1.3 Reduce reliance on food imports through import substitution for food products that can be produced domestically
- ECO 2.1 Increase access to safe, reliable and affordable modern energy services for all that are increasingly generated from renewable sources and reduce reliance on imported fossil fuels

Annex 8 below provides a detailed analysis of the primary production and tourism sectors and their respective significance to the Vanuatu economy. In brief, from a trade perspective the Reserve Bank of Vanuatu (RBV) estimated that the Tourism sector in aggregate contributed 33% to GDP in 2010⁸. In December 2015, the RBV noted a high correlation between air and cruise ship arrivals to overall growth in the services sector but growth in the accommodation and food service portion of GDP is 'mainly explained by the movement in air visitor arrivals who tend to stay longer periods than cruise ship visitors and spend more in hotels, restaurants and travel to outer islands.'⁹

As Chart A2.8 indicates, air arrivals have recovered to 2014 levels and the average length of stay has extended to 11.4 days.

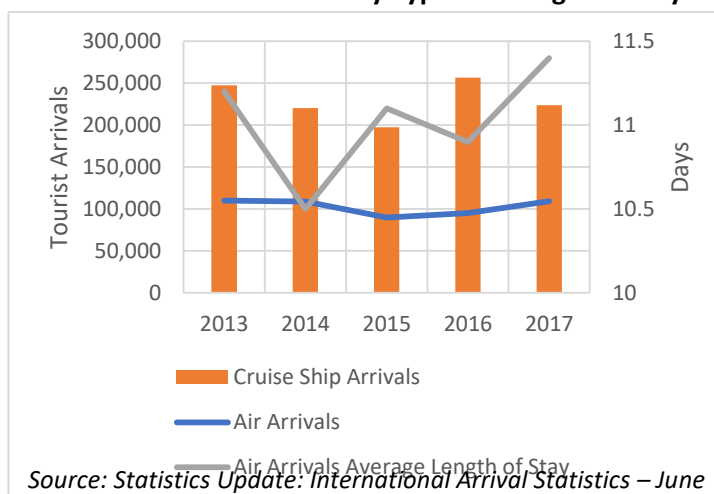
It follows therefore that, even though the number of cruise ship arrivals has not recovered to 2013 levels, the increasing number of air arrivals with an increasing average length of stay,

Chart A2.7 Balance of Trade 2006 -2016



Source: Statistics Release: Gross Domestic Product 2016 (NSO 2017)

Chart A2.8 Tourist Arrivals by Type and Length of Stay



Source: Statistics Update: International Arrival Statistics – June 2018 Highlights (VNSO 2018)

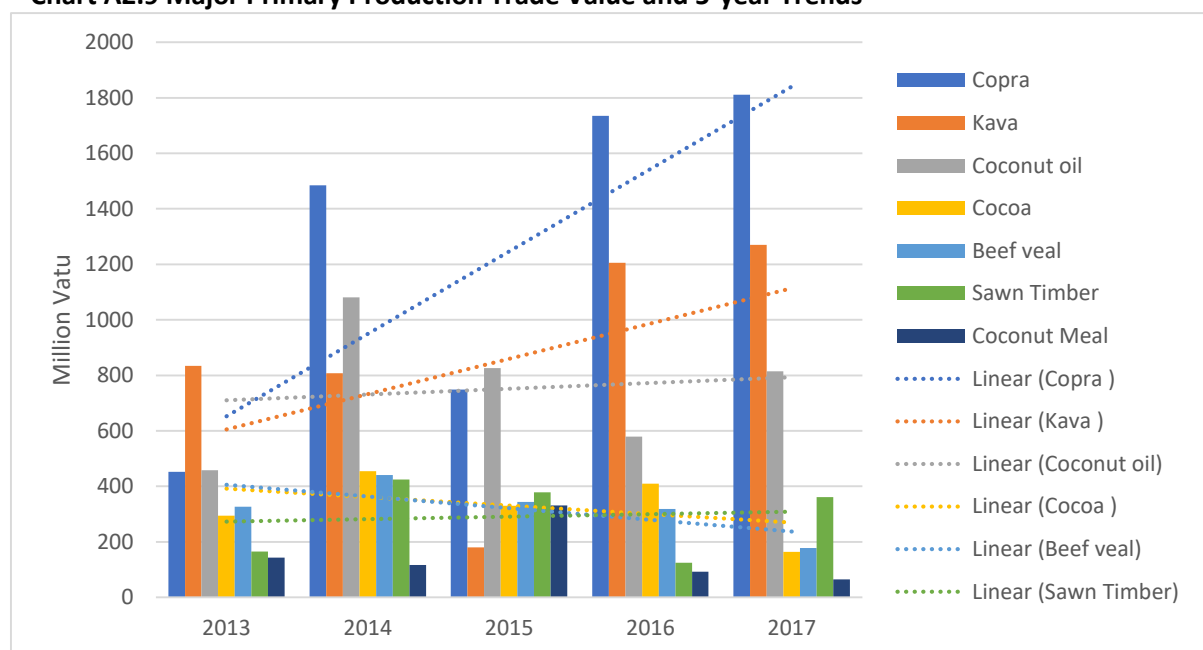
⁸ Reserve Bank of Vanuatu, 2012 (cited in Vanuatu Trade Policy Framework 2012)

⁹ Quarterly Economic Review December 2015 (RBV, 2015)

means that post Cyclone Pam, the tourism sector continues to maintain its leadership status as the primary contributor to the national economy.

Primary Production exports are another major contributor to GDP with Copra and Kava the predominant export crop types. While exports of primary products all suffered a decline in 2015, the 5-year trends for the high export value copra and kava crops have been very positive. Coconut oil and Sawn timber exports have also been trending upwards over the same period but there has been a steady decline in the value of cocoa and beef exports.

Chart A2.9 Major Primary Production Trade Value and 5-year Trends



Source: Statistics Update: Merchandise Trade Statistics – June 2018 Highlights (VNSO 2018)

2.2.3 Poverty

A 2012 analysis of the 2006 and 2010 HIES, conducted by the United Nations Development Program (UNDP) and the NSO¹⁰, found across Vanuatu a reduction of those below the Basic Needs Poverty Line (BNPL) from 13% in 2006 to 12.7% in 2010. This improvement was not experienced evenly in all areas. In Port Vila the BNPL fell from 20.1% to 18.4% and in Rural Areas it fell from 11.5% to 10%. However, in Luganville there was a significant increase in the numbers living below the BNPL from 12.2% in 2006 to 23.6% in 2010.

The UNDP report noted that these figures preceded the 2012 increase in the basic wage but it also noted that being in wage employment did not necessarily keep individuals and their households out of poverty. In Port Vila, 16.8% of government employees and 17.1% of private sector employees were below the BNPL; the respective proportions in Luganville were 15.8% and 21.3% and, in rural areas, much lower at 5.1% and 7.1%¹¹.

¹⁰ Vanuatu Hardship and Poverty Report 2012 (UNDP, Vanuatu NSO 2012)

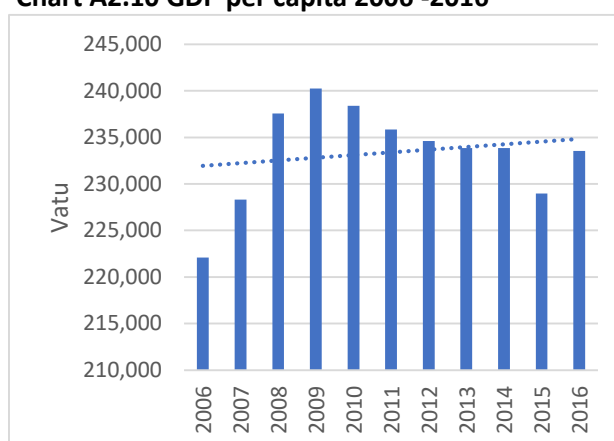
¹¹ UNDP 2012

However, while GDP per capita has been trending upwards over the decade to 2016, it has fallen below the 2009/2010 levels in the last 5 years, particularly in 2015 as a consequence of Cyclone Pam. This decline in GDP per capita could indicate that BNPL rates reported in 2010 may in fact be worse in 2016. Further VNSO analysis of more recent data would need to be undertaken to verify that this is the case or not.

Regional data (Chart A2.11) shows that poverty in Vanuatu is comparatively low compared to most of its Pacific neighbours. The Secretariat of the Pacific Community (SPC) National Minimum Development Indicators (NMDI)¹² reports the Basic Needs Poverty Rate¹³ in Vanuatu is, alongside the Solomon Islands, the lowest reported across the Pacific Forum Countries.

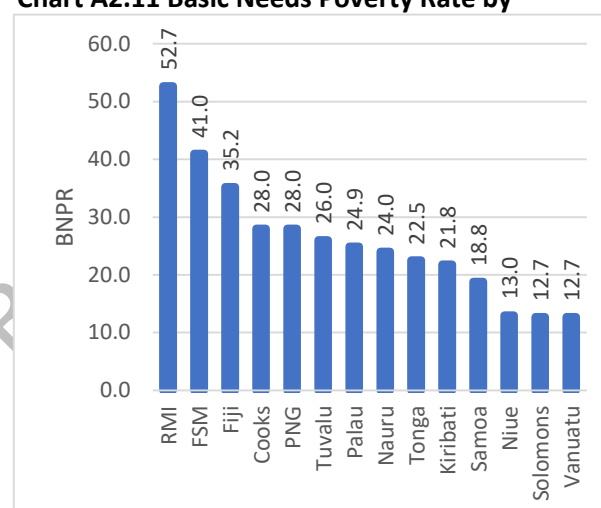
The distribution of income in Vanuatu as measured by the GINI coefficient¹⁴ is 37.3 based on 2010 HIES data. As shown in Chart A2.12, this is comparable with Fiji, Kiribati and Tonga and is significantly lower than Tuvalu, PNG and Samoa. By way of comparison the GINI coefficient in Australia in 2010 was 34.7 and the 2015 figure for New Zealand was 35.0.

Chart A2.10 GDP per capita 2006 -2016



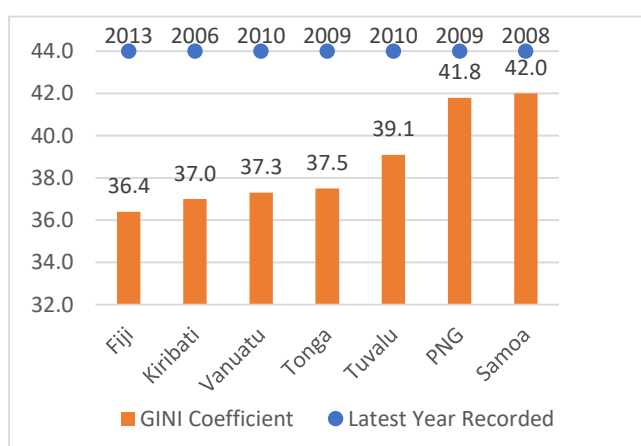
Source: Statistics Release: Gross Domestic Product 2016 (VNSO 2017)

Chart A2.11 Basic Needs Poverty Rate by



Source: Statistics Release: Gross Domestic Product 2016 (VNSO 2017)

Chart A2.12 GINI Coefficient by Country



Source: Secretariat of the Pacific Community -NMDI

¹² Secretariat of the Pacific Community <http://www.spc.int/nmdi/poverty>

¹³ The national poverty rate is the percentage of the total population living below the national poverty line.

¹⁴ A Gini index of 0 expresses perfect equality, while a Gini index of 100 expresses maximal inequality.

2.3. Labour Market Characteristics

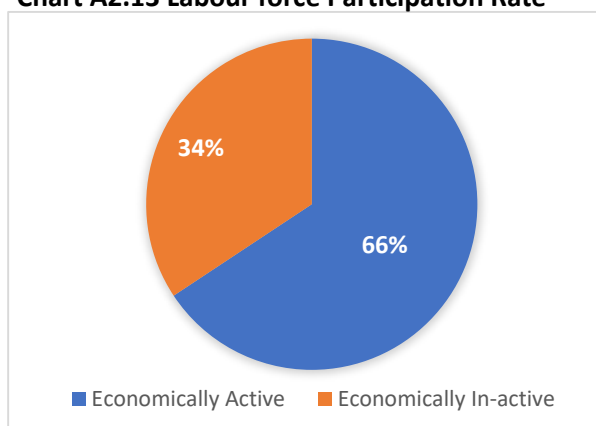
2.4.1 Structure of Employment

The labour force comprises all working age persons either currently employed or unemployed. The Vanuatu working age population aged 15 to 64 years in 2016 was 150,070¹⁵.

The labour force participation rate shows the relative proportion of people of working age who are economically active compared to those who are economically in-active. Reasons for economic in-activity include study or schooling, retirement, disability, those working in the household full-time (domestic duties) and those who simply do not want to work.

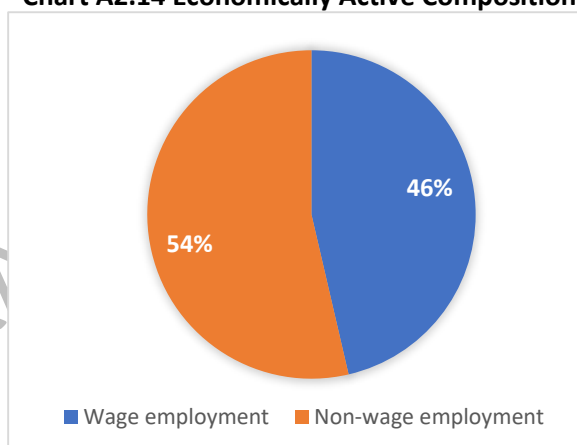
In Vanuatu, of those who are economically active, a significant proportion are engaged in non-wage activity including those producing goods for own consumption only, and those producing goods for own consumption and sale. The wage and for profit employment category includes employers, self-employed, employees - public sector, employees -private sector, and those producing goods for sale only.

Chart A2.13 Labour force Participation Rate



Source: 2016 Mini Census VNSO

Chart A2.14 Economically Active Composition



Source: 2016 Mini Census VNSO

The specific composition of those classified as being in wage and for-profit employment is provided in Table A2.9.

Table A2.9 Wage and for-Profit Employment Structure by Urban/Rural Areas 2016

	Private sector				Public sector
	Employer	Self-employed	Employee	Producing goods for sale only	Employee
Total Vanuatu	2,063	10,105	23,378	1,998	8,229
Luganville	352	781	2,808	111	783
Port Vila	438	2,064	11,763	292	3,423
Total Urban	790	2,845	14,571	403	4,206
% Urban	38%	28%	62%	20%	51%
% Rural	62%	72%	38%	80%	49%

Source: 2016 Mini Census VNSO

¹⁵ Mini Census 2016 (VNSO)

In total, employees (both private and public combined) comprise 69% of this group of which 82% are located in urban areas. Of these, 79% are employed in Port Vila. Interestingly though, there is a higher proportion of employers, self-employed and those producing goods for sale only in rural areas compared to urban areas. These figures are reflective of the relatively large rural population and the large informal economy comprised of many smaller scale enterprises.

Overall, the age distribution is what might be expected with 33% in the 15-29 age cohort and 64% in the broader range 30-59 age cohort. Differences arise though when the age distribution of private sector employees is compared to public sector employees. Only 26% of public sector employees are below the age of 30 whereas the figure for private sector is 35% below the age of 30. The extent to which the older public sector workforce impacts national human resource development planning is discussed in further detail in Annex 4.

Table A2.10 Employment Structure by Age Group 2016

Age Group	Private sector				Public sector
	Employer	Self-employed	Employee	Producing goods for sale only	Employee
15 - 29	618	2,898	8,152	637	2,153
30 - 59	1,293	6,164	14,536	1,126	5,843
60+	152	1,043	690	235	233
	2,063	10,105	23,378	1,998	8,229

Source: 2016 Mini Census VNSO

2.4.2 Employment distribution by gender/age

The relative gender distribution by age group for the private and public sectors is shown in Table A2.11 below. Employment in the private sector is comprised of 62% males and 38% females, whereas there is closer gender parity in the public sector with 41% females overall. However, across the age cohorts the rate of female participation in the public sector workforce reduces more rapidly compared to the private sector. For the 15-29 age cohort in the public sector there is better than gender parity with 51% of the employees being female compared to 39% for the same cohort in the private sector, but for the 30-59 age cohort, female public sector employment reduces 13 percentage points to 38% compared to just 2 percentage points reduction to 37% in the private sector.

Table A2.11 Private/Public Sector Employment Structure by Age Group and Sex 2016

Age Group	Private Sector		Public Sector	
	Male N=23,450	Female N=14,094	Male N=4,848	Female N=3,381
15 - 29	61%	39%	49%	51%
30 - 59	63%	37%	62%	38%
60+	70%	30%	74%	26%
	62%	38%	59%	41%

Source: 2016 Mini Census VNSO

2.4.3 Employment distribution by geographic location – urban/rural, province

The wage and for-profit employment structure in the provinces varies quite a lot dependent on the proximity to urban areas and major tourist destinations. In rural Sanma and Shefa the majority are

wage employees reflecting the volume of commercial agriculture, manufacturing and tourism enterprises serving the urban hubs. Tafea also has a comparatively high proportion of wage employees most likely correlating to its tourism appeal. The corollary being that Torba, Malampa, and Penama have proportionally high levels of self-employed most likely serving local demand in the informal economy. The percentage of employers is proportionally lower in rural Sanma and Shefa which, when their higher proportion of wage employees is taken into account, is indicative of larger scale enterprises in those two provinces compared to the others.

Table A2.12 Employment Structure by Province

	Torba N=1,268	Sanma Rural N=3,297	Penama N=2,797	Malampa N=3,941	Shefa Rural N=8,748	Tafea N=2,907
Employer	8%	4%	7%	6%	5%	6%
Self-employed	62%	18%	48%	49%	19%	33%
Employee-Public sector	17%	18%	20%	15%	16%	21%
Employee-Private sector	8%	47%	20%	18%	56%	33%
Producing goods for sale only	6%	13%	5%	11%	4%	7%

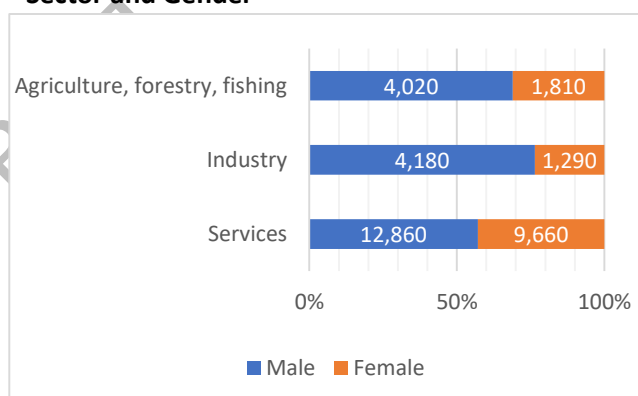
Source: 2016 Mini Census VNSO

2.4.4 Occupational Structure

The most recent data available about the occupational structure of the Wage and for-Profit employment category in Vanuatu comes from the 2010 HIES.

One in three are employed in the services sector and approximately one in six are employed in both the agriculture, forestry and fishing, and industry sectors. The services sector employs more females both numerically and proportionally with 43% of the services sector employment. This proportion reduces to about a quarter in the industry sector and about one third in the agriculture forestry and fishing sector.

Chart A2.15 Employment by Major Industry Sector and Gender



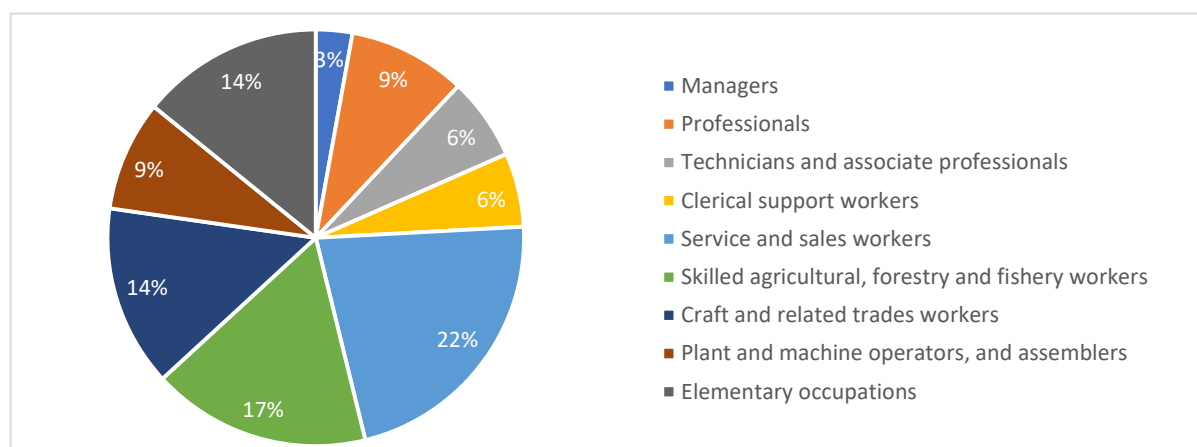
Source: HIES 2010

Table A2.15 and Chart A2.16 provide the distribution of employment by ISCO 1-digit occupational categories. The three higher ISCO classifications for managers, professionals, and technicians/associate professionals in aggregate account for just 18% of the total. The largest occupational category is service and sales workers who amount to 22% of the labour force followed by skilled agricultural, forestry and fishery workers at 17%, and craft and related trades workers and elementary occupations, both at 14%.

Table A2.15 Occupational Structure of the Wage and for-Profit Labour Force (HIES 2010)

ISCO Class	Occupational Category	Vanuatu Total	Urban			Rural		
			Male	Female	Total	Male	Female	Total
1	Managers	960	520	170	690	250	20	270
2	Professionals	3,110	680	680	1,370	900	840	1,740
3	Technicians and associate professionals	2,160	1,210	320	1,530	530	110	630
4	Clerical support workers	1,940	520	840	1,360	310	270	580
5	Service and sales workers	7,450	2,450	2,640	5,090	1,230	1,130	2,370
6	Skilled agricultural, forestry and fishery workers	5,750	1,610	800	2,410	2,270	1,070	3,340
7	Craft and related trades workers	4,770	2,990	500	3,490	980	300	1,280
8	Plant and machine operators, and assemblers	2,900	1,680	140	1,820	1,000	80	1,080
9	Elementary occupations	4,790	890	1,990	2,880	1,060	850	1,910
		33,830	12,550	8,080	20,630	8,530	4,670	13,200

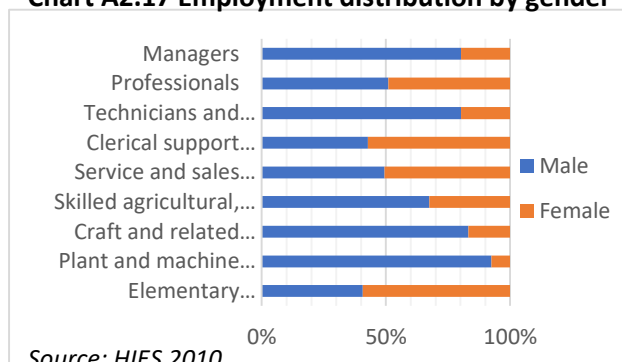
Source: Household Income and Expenditure Survey (HIES) 2010 VNSO

Chart A2.16 Occupational Structure of Vanuatu Labour Force (HIES 2010)

Source: HIES 2010

There is a wide range in the relative proportions of males and females across each of the ISCO occupational categories.

As Chart A2.17 reveals, gender parity is only achieved in the professionals and services and sales occupational categories. It is also noteworthy that there is a low proportion of females in management and that in the clerical and elementary occupational categories females predominate. These figures are reflective of traditional occupational roles for females in Vanuatu, as are the low proportions of females in the technician, trade and plant operator categories.

Chart A2.17 Employment distribution by gender

Source: HIES 2010

2.4. Annex Summary

2.4.1 Demographic characteristics

- Gender distribution in the 15-49 working age population is 49% male 51% female.
- Economically active gender distribution is 62% male and 38% female, reflective of high proportion of females becoming economically inactive due to childbirth and family duties.
- 75% of population live in rural areas.
- There is a significant population bulge in the 15-29 age cohorts in urban areas indicative of urban drift linked to employment, further education and access to services.
- High levels of youth (15-29) unemployment particularly in urban areas
- Youth unemployment rates are generally double the rates of those for all age cohorts in both rural and urban areas.
- 5.7% of urban and 12.6% of rural children in the 6-13 age range were not attending school at the time of the 2016 census.
- More than 17% of ni-Vanuatu have never attended school and primary school completion is the highest education level achieved by more than 51% of the population.
- Only 5% have a post school tertiary or vocational qualification.
- The proportion of the primary and secondary school teacher workforce with a trained teacher qualification is lower than regional averages.

2.4.2 The Vanuatu economy

- GDP is recovering after 2015 Cyclone Pam with 3.3% growth in 2016-2017 mainly due to strong growth in the agriculture sector (5.1%) and the industry sector (4.3%).
- The Services sector is the major contributor to GDP (63%) so while its growth in 2016-2017 was lower (2.1%) than the other sectors it was the largest contributor to GDP in Vanuatu terms, contributing 1.81 billion vatu compared to 583 million from the agriculture sector and 265 million from the industry sector.
- Crop production is the highest contributor to GDP in the agriculture sector.
- Construction dominates the industry sector while retail trade is the largest single contributor to GDP in the services sector.
- Vanuatu is a net importer of goods and services with a consistently negative balance of trade.
- The large growth in imports following Cyclone Pam in 2015 and 2016 has been off-set to a degree by strong export levels in 2016 but the Balance of Trade has still not recovered to pre-Pam levels.
- Tourism is a major contributor to the economy estimated by the Reserve Bank of Vanuatu to contribute 33% of GDP.
- Copra, kava and coconut oil are the predominant agricultural exports which continue to show an upward growth trend.
- Poverty levels in Vanuatu are comparatively low compared to other Pacific Forum Countries.
- Income distribution (equality) is higher than some other Pacific countries and similar to Australian and New Zealand levels.

2.4.3 Labour Market Characteristics

- Two thirds of the working age population are regarded as being economically active.
- 54% of the economically active are in non-wage employment reflective of the large subsistence-based economy.

- Of those in wage and for-profit employment the largest proportion (69%) are employees in the private and public sector.
- The public sector workforce is generally older than the private sector workforce.
- Female workforce participation is greater in the public sector (41%) compared to the private sector (38%).
- The proportion of wage employees in rural areas correlates to proximity to urban areas and major tourist destinations.
- The services sector has the highest number of wage and for-profit employment and proportionally the highest percentage (43%) of females.
- The three higher ISCO classifications for managers, professionals, and technicians/associate professionals in aggregate account for just 18% of the total number of occupational classifications.
- Gender employment parity occurs in professional and clerical occupational categories.
- Females occupy only 20% of manager occupations.

DRAFT

ANNEX 3 - PRIVATE SECTOR SKILLS DEMAND

3.1. Industry Survey 2018

A 2008 Asian Development Bank (ADB) study¹⁶ noted that across the Pacific Island Countries (PICs), formal economies are small and yet there are widespread skills shortages, particularly in management and trade occupations. However, the study noted significant data limitations, particularly for labour market data, which made it difficult to compare and contrast employment and skill shortages across the PICs.

Lack of data was further noted in a 2011 labour market review commissioned by the Government of Vanuatu as part of its approach to national human resource planning¹⁷. The critical lack of coherent labour market data upon which analysis of future education and training investments can be based remains an issue. Routine labour market and industry surveys have not been conducted by the Department of Labour and what little data is available has not been aggregated in digital form.

Given the paucity of current data, an industry survey was conducted in mid 2018 with the support of the Vanuatu Chamber of Commerce and Industry (VCCI), a number of other professional associations and the Vanuatu Qualifications Authority (VQA). The survey sought to identify key characteristics of the private sector in Vanuatu and to ascertain industry viewpoints on a number of factors related to workforce skills. These included the relative importance of skilled workers to business operations, the difficulty of finding workers with relevant skills, the nature of skill shortages and skill gaps, and the types of skill training required.

Over 200 responses covering almost 5,500 employees predominantly in Port Vila (84%) have been received and analysed in order to establish a baseline from which skill demand and future investments in education and training can be projected. This accounts for approximately one third of private sector employment in Port Vila¹⁸. As such it should not be seen as being a representative sample across Vanuatu industry as a whole but it does provide important clues related to industry structures, skill requirements and industry viewpoints.

A breakdown of the industry sectors that responded to the survey is provided in Table A3.1.

Table A3.1: Proportion of Industry sector represented in survey responses (n=202)

Industry Sector	%	Industry Sector	%
Retail/wholesale	27%	Energy	2%
Tourism	24%	Finance, Insurance, Real Estate	2%
Manufacturing	10%	Telecommunications	2%
Transport	7%	Media	1%
Construction	6%	Information Systems	1%
Services	5%	Other	10%
Agriculture	2%		

Source: Vanuatu Industry Survey 2018

¹⁶ Skilling the Pacific (ADB 2008)

¹⁷ Research based Report on Current and Future Labour Market Issues in Vanuatu -Working Draft (Hind, Ian 2011)

¹⁸ Derived from 2016 Post Pam Mini Census Report, Vol 1 Table 3.38: Household by main source of household income and by region and supplementary NSO data (National Statistics Office, Government of Vanuatu, 2016)

While, the number of enterprises in each sector that responded to the survey gives some insight into the broader structure of industry, the potential quantum of skills demand for each sector is perhaps better indicated by the relative number of employees represented in the survey.

Drawn from the Industry Survey, Table A3.2 (below) provides a range of employee related statistics by industry sector. From this analysis it can be seen that the tourism sector is a major employer and from a skill demand perspective requires specific consideration in terms of human resource development strategies.

Similarly, the construction, manufacturing and retail/wholesale sectors are substantial employers with comparable levels of skill demand. Being a predominantly urban based survey, the low representation of agriculture related employees is understandable, but it is not representative of the country as a whole. For example, the 2010 HIES found nationally that just on 59,000 people identified themselves as 'work in the garden/subsistence' and 5,750 identified themselves as 'skilled agricultural, forestry and fishery workers'¹⁹. In this context, there is clearly a strong case for careful consideration of the human resource development needs across the agriculture sectors.

Table A3.2: Employee numbers by industry sector represented in survey responses

Industry Sector	Total Employees	Average Enterprise Size	Female Employees	% Female	Foreign Workers
Tourism	1,443	29	700	49%	52
Transport	825	55	206	25%	94
Construction	683	53	62	9%	88
Manufacturing	575	29	244	42%	25
Retail/wholesale	568	11	252	44%	24
Telecommunications	300	75	99	33%	12
Energy	178	45	51	29%	6
Finance	123	31	76	62%	11
Services	82	8	28	34%	4
Agriculture	78	20	22	28%	1
Media	31	10	13	42%	1
Information Systems	15	8	7	47%	0
Other	575	29	235	41%	40
	5,476		1,995	36%	358

Source: Vanuatu Industry Survey 2018

It is noteworthy that the overall gender distribution in the surveyed enterprises is very close to the private sector gender distribution reported in the 2016 Mini-Census²⁰ which found the relative gender proportions in the private sector workforce to be 62% male and 38% female. More specifically, the larger employers, apart from construction and transport, are close to or approaching gender parity in their respective workforces. This is an important consideration when determining which education and training investments are most likely to advance the 'all' principle in the national aspiration to create:

¹⁹ 2010 HIES (NSO 2011)

²⁰ 2016 Mini-Census (NSO 2017)

- *A stable economy based on equitable, sustainable growth that creates jobs and income earning opportunities accessible to all people in rural and urban areas²¹.*

The number of foreign workers identified in the survey response is indicative of a range of occupational types that could otherwise be occupied by ni-Vanuatu employees. Annex 5 provides a more complete analysis of foreign workers in Vanuatu and the associated opportunities for ni-Vanuatu workers.

3.2. Skill Shortages

In response to a survey question asking respondents to consider 10 business related issues and to indicate the importance of each issue to their business, the consensus was that finding skilled workers was the most important issue. Table A3.3 shows the relative importance of each issue to employers.

Table A3.3: Most important issues facing business (n=201)

Issue	% Agree or Strongly Agree
Finding skilled workers	83%
The duties and tax system	78%
Government regulations	76%
Energy costs	76%
Business permits	69%
The state of the roads	68%
Lack of good work habits among your workers	68%
Access to credit or finance	64%
Problems with suppliers	54%
The cost of foreign workers	37%

Source: Vanuatu Industry Survey 2018

Given the difficulty in finding skilled workers, many employers have recruited personnel from overseas; the cost of which does not seem to be an inhibiting factor with the issue being consistently ranked least significant amongst the 10 offered in the survey.

It is noteworthy, that while finding skilled workers is the most significant issue, employers see the work habits of their existing ni-Vanuatu workforce as less of an issue compared to others such as duties and taxes, Government regulations etc. However, later analysis of other related questions points to a degree of concern in this area (see Table A3.11).

The general recognition that skilled labour is a fundamental issue for businesses in Vanuatu is consistent with the degree of difficulty that employers have in recruiting ni-Vanuatu workers with the relevant skills required for their businesses. Table A3.4 shows that 60% of respondents indicated that it was hard to very hard to recruit workers with the required skills.

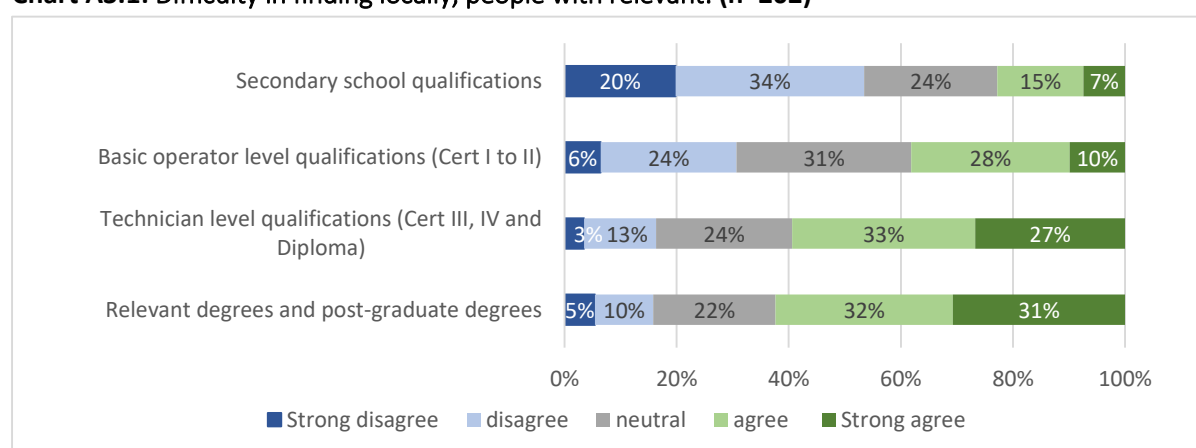
²¹ NDSP 2016 – 2030 Development Aspirations

Table A3.4: Difficulty of recruiting ni-Vanuatu workers with required skills (n=202)

Degree of Difficulty	Number Responses	% Responses
Very hard	70	35%
Hard	51	25%
Not very hard	60	30%
Easy	21	10%

Source: Vanuatu Industry Survey 2018

Table A3.4 identifies the perceived recruitment difficulty for all occupational levels irrespective of qualifications required, whereas Chart A3.1 provides a more specific indication of skill shortages at a number of levels of the Vanuatu Qualifications Framework (VQF). From Chart A3.1 there is clear consensus that it is more difficult to recruit ni-Vanuatu with relevant higher-level qualifications than lower level qualifications.

Chart A3.1: Difficulty in finding locally, people with relevant: (n=202)

Source: Vanuatu Industry Survey 2018

In part, this is a reflection on the current qualification levels being offered by local PSET providers where for example, 83% of the 47 qualifications currently accredited by the Vanuatu Qualification Authority (VQA) are below the Certificate IV level (see Annex 8, Table A8.6).

Given the inclusion of the word 'relevant' in the question, it is also a reflection that the scholarship program has not been specifically targeted to industry needs, resulting in an over-supply of some higher-level qualifications that are not relevant to business sector and an under-supply of those that are.

Curtain (2013)²² (prepared as part of a DFAT Investment Design) provides further evidence, based on 2009 Census Data, as to why employers find it hard to recruit ni-Vanuatu with higher level qualifications. As Table A3.5 illustrates, Vanuatu has a low proportion of managers, professionals and technicians with post school qualifications compared to Fiji and Australia.

²² Skilling Youth in the Pacific: Identifying the Skill Needs of Eight Pacific Countries together with Australia and New Zealand (Curtain, Richard, 2013) (DFAT 2013)

Table A3.5: Post-school qualifications, per cent of each occupation group

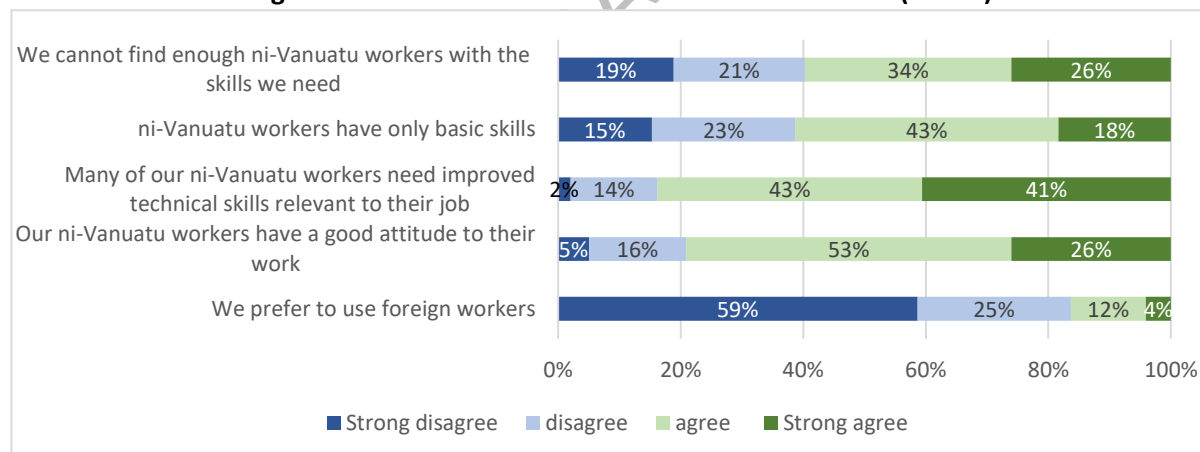
Occupation Group - ISCO - 1 Digit Level	Vanuatu %	Fiji %	Australia %
1. Managers	29.7	43.4	68.6
2. Professionals	34.8	77.0	91.5
3. Technicians & associate professionals	18.8	56.7	73.0

Source: Curtain (2013)

In addition to the pointers to skill shortages outlined above, employers were asked to comment more generally on their perceptions of ni-Vanuatu worker skill levels. The results in Chart A3.2 indicate general agreement to most statements other than the statement related to a preference for foreign workers with a very large proportion (84%) either disagreeing or strongly disagreeing that they had a preference for foreign workers. Importantly, a high proportion of respondents also felt that ni-Vanuatu workers have a good attitude to their work with 79% either agreeing or strongly agreeing to this statement.

So, if there is a clear preference to employ ni-Vanuatu and there is consensus that ni-Vanuatu have a good attitude to their work, the question arises as to why employers, as indicated above, find it difficult to recruit employees with suitable skills.

The other results in Chart A3.2 provide a number of clues. Specifically, 84% either agreed or strongly agreed to the point that ni-Vanuatu workers need improved technical skills relevant to their job. In addition, there are strong perceptions (61%) that ni-Vanuatu workers only have basic skills.

Chart A3.2: Level of agreement to statements about ni-Vanuatu workers (n=196)

Source: Vanuatu Industry Survey 2018

One conclusion that can be drawn from the data so far is that there would be increased employment opportunities for ni-Vanuatu if their technical and higher-level skills were improved. Annex 5 examines the current composition of the foreign worker cohort and provides further clues that corroborate the potential for greater employment opportunities for ni-Vanuatu workers if they have the relevant qualifications and technical skills.

Further to questions around general recruitment difficulties, industry survey respondents were also asked to indicate which specific occupations they found more difficult to recruit. Again, there was a consistent view that management, professional, and associate professional/technician occupations, together with craft/trade workers were the more difficult to fill.

All of the occupations identified by respondents were classified to the ISCO 3-digit level and then aggregated to the ISCO 1-digit level as shown in Table A3.6.

Table A3.6: Difficult Occupations to Recruit – ISCO 1-digit level (n=276)

ISCO Level	Occupational Type	Number of References	%
ISCO 1	Managers	47	17%
ISCO 2	Professionals	62	22%
ISCO 3	Technicians & Associate Professionals	72	26%
ISCO 4	Clerical Support Workers	13	5%
ISCO 5	Services & Sales Workers	30	11%
ISCO 6	Agricultural, Forestry & Fishery Workers	5	2%
ISCO 7	Craft & Related Trades Workers	29	11%
ISCO 8	Plant and Machine Operators & Assemblers	12	4%
ISCO 9	Elementary Occupations	6	2%

Source: Vanuatu Industry Survey 2018

As shown in the table, 65% of all difficult to recruit occupations related to ISCO levels 1 to 3, with a further 11% related to trade related skills at ISCO level 7. In addition, the 2% at the ISCO 6 level were all related to technical roles in agriculture. In total therefore, 78% of responses relate to occupations that require higher level qualifications and skills. The proportionally high number of references to service and sales worker correlates most probably to the large proportion (27%) of survey responses coming from retail and wholesale businesses.

The following set of tables examine the occupational types that are more difficult to recruit to the ISCO 3-digit level for Managers, Professionals, Technicians/Associate Professionals and Craft and Related Trade Workers.

Table A3.7: Difficult Occupations to Recruit – Managers to ISCO 3-digit level (n=45)

ISCO Level	Occupational Type	Number of References	%
121	Business Services and Administration Managers	33	70%
134	Professional Services Managers	5	11%
132	Manufacturing, Mining, Construction and Distribution Managers	3	6%
143	Other Services Managers	3	6%
122	Sales, Marketing and Development Managers	2	4%
142	Retail and Wholesale Trade Managers	1	2%

Source: Vanuatu Industry Survey 2018

The significant number in the *Business Services and Administration Manager* category is comprised mainly of General Managers. The *Professional Service Manager* category included human resource and information technology managers.

Within the *Professionals* classification (Table A3.8), the recruitment of *Finance and Administration Professionals* would appear to be the more difficult. Given the generic nature of finance, accounting and administration across all enterprises this is perhaps a predictable result. Over half of the *Engineering Professional* occupations relate to Marine Engineering. The references in the *Social and Religious Professional* category were to individual and more esoteric occupations such as Archaeologist, Anthropologist and Ethnologist.

Table A3.8: Difficult Occupations to Recruit – Professionals to ISCO 3-digit level (n=60)

ISCO Level	Occupational Type	Number of References	%
241	Finance Professionals	16	26%
214	Engineering Professionals (not Electrotechnology)	8	13%
242	Administration Professionals	8	13%
263	Social and Religious Professionals	6	10%
264	Authors, Journalists and Linguists	5	8%
216	Architects, Planners, Surveyors and Designers	3	5%
235	Other Teaching Professionals	3	5%
222	Nursing and Midwifery Professionals	2	3%
226	Other Health Professionals	2	3%
265	Creative and Performing Artists	2	3%
215	Electrotechnology Engineers	1	2%
221	Medical Doctors	1	2%
224	Paramedical Practitioners	1	2%
232	Vocational Education Teachers	1	2%
234	Primary School and Early Childhood Teachers	1	2%
243	Sales, Marketing and Public Relations Professionals	1	2%
262	Librarians, Archivists and Curators	1	2%

Source: Vanuatu Industry Survey 2018

Table A3.9: Difficult Occupations to Recruit –Technicians & Associate Professionals to ISCO 3-digit level (n=71)

ISCO Level	Occupational Type	Number of References	%
332	Sales and Purchasing Agents and Brokers	14	19%
343	Artistic, Cultural and Culinary Associate Professionals	11	15%
315	Ship and Aircraft Controllers and Technicians	10	14%
331	Financial and Mathematical Associate Professionals	7	10%
334	Administrative and Specialized Secretaries	7	10%
351	Information and Communications Technology Operations and User Support Technicians	6	8%
313	Process Control Technicians	5	7%
312	Mining, Manufacturing and Construction Supervisors	4	6%
314	Life Science Technicians and Related Associate Professionals	2	3%
325	Other Health Associate Professionals	2	3%
352	Telecommunications and Broadcasting Technicians	2	3%
321	Medical and Pharmaceutical Technicians	1	1%
335	Government regulatory associate professionals	1	1%

Source: Vanuatu Industry Survey 2018

For the *Technician and Associate Professional* classification (Table A3.9) the occupations that were seen to be the more difficult to recruit were Sales and Purchasing Agents and Brokers, Artistic, Cultural and Culinary Associate Professionals, Ship and Aircraft Controllers and Technicians,

Information and Communications Technology Operations and User Support Technicians, and Process Control Technicians.

Within the Sales and Purchasing Agents and Brokers group over 70% of references were to Marketing and Sales associate professionals. The Artistic, Cultural and Culinary Associate Professionals references were almost entirely for Chefs. Two thirds of the Ship and Aircraft Controllers and Technicians group related to maritime occupations with the other third being aircraft pilots. The Information and Communications Technology Operations and User Support Technicians were predominantly network, web support and telecommunication technician occupations. The Process Control Technicians group comprised refrigeration and air-conditioning, energy and food processing technician occupations.

As shown in Table A3.12 below, over one-third of the references for *Craft and Related Trades Workers* occupations related to Building Frame and Related Trades Workers comprised mostly of carpenters and joiners, and general tradespeople. The Other Craft and Related Workers included dive and boatbuilding occupations. Building Finishers and Related Trades Workers included plumbers and gas fitters and the Food Processing and Related Trades Workers group included butchers and Hazard Analysis and Critical Control Points (HACCP) supervisors.

Table A3.10: Difficult Occupations to Recruit – Craft and Related Trades Workers to ISCO 3-digit level (n=29)

ISCO Level	Occupational Type	Number of References	%
711	Building Frame and Related Trades Workers	11	38%
712	Building Finishers and Related Trades Workers	4	14%
741	Electrical Equipment Installers and Repairers	4	14%
751	Food Processing and Related Trades Workers	3	10%
731	Handicraft Workers	1	3%
732	Printing Trades Workers	1	3%
754	Other Craft and Related Workers	5	17%

3.3. General/Basic Skill Gaps

In addition to identifying occupations that are difficult to recruit, employers were offered the opportunity to name up to 5 general/basic skills they believe their workers lacked. The wide range of viewpoints expressed have been classified into 5 categories in Table A3.11. Foremost among these is the *Self-Management* category which incorporates a range of what are sometimes termed ‘soft skills’ including time management, initiative, pro-activeness, organisational awareness and customer service. The frequent references to self-management issues for employees in the private sector is consistent with similar perceptions in Annex 4 which examines Public Sector skill shortages and gaps.

The *Technical Skill* category includes a range of skills that are specific to the enterprises such as basic construction, electrical and carpentry for constructions enterprises or cooking, pastry making and bread making for food service enterprises. More generic technical skills such as those related to finance are also included in this category. The *Personal Attributes* category includes a range of personal and attitudinal traits such as reliability, work ethic, commitment, consistent standards, and personal grooming.

Table A3.11: General/Basic Skills lacking in ni-Vanuatu Workforce (n=322)

General/Basic Skills Lacking	Number of References	%
Self-management	123	38%
Technical	84	26%
Personal attributes	65	20%
Language, literacy numeracy	36	11%
ICT	14	5%

Source: Vanuatu Industry Survey 2018

References to literacy and numeracy were common, pointing to a general concern about the levels of literacy and numeracy being achieved by the end of schooling. In the Post School Education and Training (PSET) sector a **National Adult LLN Framework**²³ was endorsed by Government in 2017. Development of a **National LLN Strategy** is now in its final stages of preparation and once approved will be published later this year (2018). The successful implementation of the strategy which focuses on workplace literacy and numeracy will be critical across all sectors, in particular where a strong human interface is required such as the tourism and retail sales sectors.

3.4. Annex Summary

- Tourism and retail/wholesale trade related enterprises are the largest employers
- Finding skilled workers is the most important issue for employers
- It is difficult to find workers with higher level qualifications
- The more difficult occupations to recruit are at the management, professional, technician/associate professional levels
- Also, difficult to recruit skilled craft and related trades workers
- There is a strong perception that local workers need improved technical skills
- Employers believe local workers have a good attitude to work
- Employers would prefer to employ local workers ahead of foreign workers
- Self management, including time management, initiative, pro-activeness, organisational awareness and customer service are the main general areas for improvement in the existing workforce

²³ National Adult Language, Literacy and Numeracy Framework for Vanuatu (Ministry of Education and Training, 2017)

ANNEX 4 - PUBLIC SECTOR SKILLS DEMAND

4.1. Structure of the Public Sector

Public sector data has been as difficult to access as it was for the private sector. The following analysis has been drawn principally from information provided by the Public Service Commission (PSC) information office. It has been supplemented by data from a number of other sources within the Public Service Commission and the NSO where relevant. This has resulted in a little variation in numbers but while the numbers may not be entirely consistent, the overall conclusions that can be drawn from the data remain the same.

According to the 2016 mini-Census, 8,229 people identified themselves as a public sector employee. This number is considerably higher than different data sets provided by the PSC which identified the number of currently active positions as somewhere between 5,786 and 5,913. The reason for this discrepancy is not clear unless perhaps that between 2016 and 2018 a large number of people have left the public service and not been replaced or perhaps some retirees still identify themselves as public servants.

Table A4.1 shows the current composition of the public sector by commission and employment type. The PSC and the Teaching Service Commission (TSC) are clearly the largest, but the PSC is characterised by higher levels of Contract and Temporary Staff. The Judiciary Services Commission (JSC) has a similar proportion of contract staff (16%) to the PSC (18%).

Table A4.1 Structure of Public Sector by Commission and Employment Type

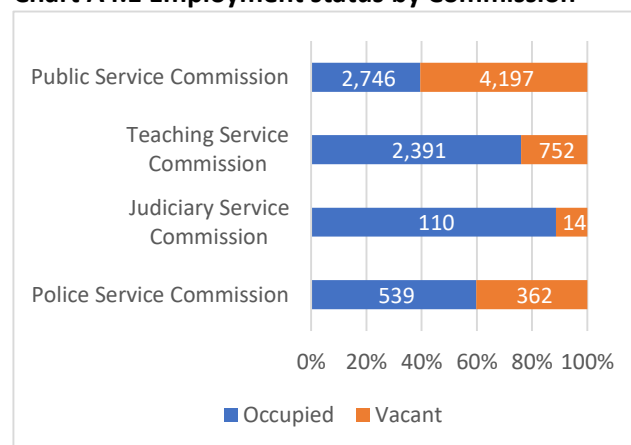
Commission	Permanent	Contract	Temporary	Daily Rate	Expat Contract	Not stated	Total
Public Service	1,961	494	203	1	3	84	2,746
Teaching Service	2,329	24	15	0	0	23	2,391
Judiciary Service	76	18	3	0	0	13	110
Police Service	499	39	0	0	0	1	539
TOTAL (4 commissions)							5,786

Source: PSC Data 2018

While Table A4.1 shows the numbers currently in public sector employment, Chart A4.1 reveals the proportion of positions that are currently vacant. On the basis of this data 60% of PSC positions are currently vacant. The TSC data shows 1 in 4 positions are currently vacant. While the JDC has relatively few vacant positions, the Police Services Commission is 40% under-resourced.

Table A4.2 below shows the public sector employment structure by Ministries. This data coming from a different source in the PSC has different overall numbers than the Commission data presented above but the pattern is similar.

Chart A4.1 Employment status by Commission



Source: PSC Data 2018

The analysis in the remainder of this Annex is based on the 'by Ministry' figures as it gives better opportunity to identify specific occupational shortages and skill gaps in the Vanuatu public sector.

Table A4.2 Structure of Public Sector by Filled and Vacant Positions

Ministry	Total Positions	Filled Positions	Vacant Positions
Constitutional	35	32	3
Minister of Justice and Social Welfare	397	270	127
Ministry of Agriculture	405	258	147
Ministry of Climate Change	216	113	103
Ministry of Education and Training	3,556	2,644	912
Ministry of Finance	345	250	95
Ministry of Foreign Affairs	64	54	10
Ministry of Health	3,258 ²⁴	1,006	2,252
Ministry of Internal Affairs	1,152	687	465
Ministry of Lands	206	105	101
Ministry of Public Utilities	406	218	188
Ministry of Trade, Industry and Tourism	188	109	79
Ministry of Youth and Sport	31	31	-
Prime Minister	244	136	108
Totals	10,503	5,913	4,590

Source: PSC Data 2018

With this breakdown of figures, there are more than ten and a half thousand public sector positions across 14 ministries. Of this number, 44% of the positions are deemed as vacant. The question arises, to what extent does this high level of vacancies provide clues about skill shortages in the public service?

4.2. Skill Shortages

There are several reasons which together may explain the large number of vacancies across the public service. It could simply be a matter of budget availability and priorities? It is also possible that people with the required skills are not available. Another reason might be that the employment conditions within the public service are not sufficient to attract people with the required skills? It also has to be asked whether all of the vacancies are in fact 'real' or are they simply a consequence of positions being created for shorter term specific purposes (projects for example) and on completion of the specific purposes not removed from ministry structures.

Nevertheless, irrespective of the reasons, the implications are clear from a NHRDP perspective – the achievement of NSDP 2016-2030 objectives is at risk if there are inadequate numbers of appropriately skilled public sector employees. The extent to which public sector vacancies are a consequence of budget priorities might require reconsideration of priorities if NSDP objectives are to be met. Current historical based funding approaches, where annual budgets are constructed around

²⁴ A new MoH organisational structure in 2017 has 2,521 approved positions, with 977 filled positions based on MoH 2018 payroll data – another example where data is inconsistent between sources. The MoH numbers indicate a vacancy rate of 62% compared to the 69% shown in the PSC figures below but in the following analyses the PSC figures are used to ensure data comparisons are consistently drawn from the same source.

historical funding levels on a ministry by ministry basis may need to be re-aligned, not simply to meet individual ministry priorities but collectively to meet national development priorities. If shifts in budget allocations across ministries occurs there will be significant human resource development implications for affected ministries that may require a specific response from PSET Providers and the Vanuatu Institute of Public Administration and Management (VIPAM).

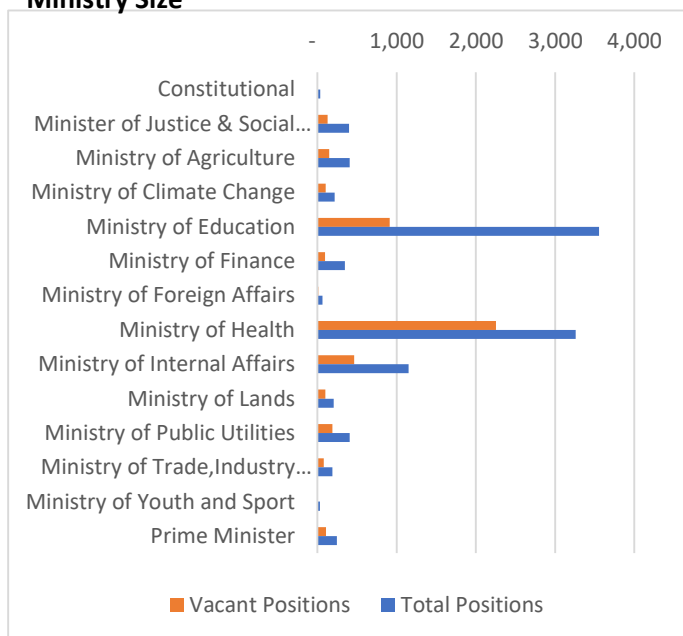
Where vacancies are due to difficulty in recruiting people with relevant qualifications, skills and experience there are strong clues to the nature of skill shortages in the public service. The following analysis examines the nature of the vacancies across ministries to establish further corroborative evidence from which recommendations for budget realignment and education and training investment might be derived.

The Ministry of Education and Training (MoET) and the Ministry of Health (MoH) are numerically the largest and correspondingly, have the greatest number of vacancies as shown above in Table A4.2 and below in Chart A4.2. However, in a proportional sense, the MoET vacancies are not as great as they are in most other ministries. What is clearly evident is that the MoH has both the highest number of vacancies (2,252) and the highest proportion of vacancies (69%). Other significant levels of vacancies occur in the Ministry of Lands and the Ministry of Climate Change, both of which have close to half of their establishment positions vacant. The average level of vacancies across all ministries is 35%.

All of the 4,590 public service vacancies have each been classified to the ISCO 3-digit level. In aggregate, at the 1-digit level, professionals and technicians/associate professionals form the bulk of all vacancies as shown below in Table A4.3.

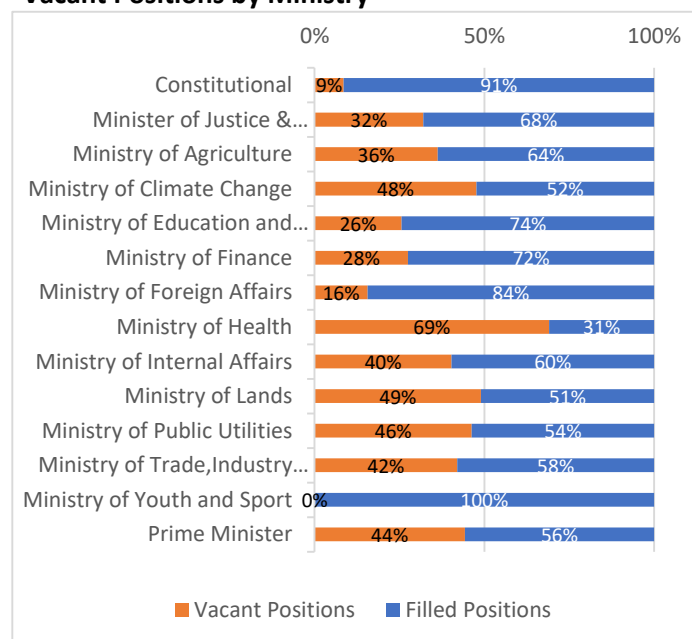
The extent to which this is consistent with private sector data is perhaps an indication that the lack of availability of qualified and skilled people to fill vacant positions in the public sector maybe a primary reason for the large number of vacancies overall. Further evidence is provided by the apparent correlation between

Chart A4.2 Public Sector Vacancies in relation to Ministry Size



Source: PSC Data 2018

Chart A4.3 Relative proportion of Filled and Vacant Positions by Ministry



Source: PSC Data 2018

Ministries which rely heavily on professional and technically qualified staff and the respective level of vacancies. For example, the Ministries of Health, Lands, Public Utilities and Climate Change all have proportionately high vacancy levels. The large numbers in the Ministries of Education and Internal Affairs also correlate to professional and technical occupations.

Table A4.3 Predominant Public Sector Vacancies by Occupational Type (ISCO – 1-digit)

ISCO Class	Occupations	Number Vacant	% Vacant
1	Managers	218	5%
2	Professionals	2,023	44%
3	Technicians and Associate Professionals	1,373	30%
4	Clerical Support Workers	190	4%
5	Services and Sales Workers	285	6%
6	Skilled Agricultural, Forestry and Fishery Workers	26	1%
7	Craft and Related Trades Workers	111	2%
8	Plant and Machine Operators and Assemblers	156	3%
9	Elementary Occupations	192	4%

Source: PSC Data 2018

A more precise idea as to the occupational types that are vacant in the public sector is provided by the ISCO 3-digit analysis. This analysis shows that of the 4,590 vacancies almost 1 in 5 are nursing and midwifery professionals.

Table A4.4 Predominant Public Sector Vacancies by Occupational Type (ISCO – 3-digit)

ISCO Class	Occupations	Number N=4,590	%
222	Nursing and midwifery professionals	837	18%
234	Primary school and early childhood teachers	404	9%
322	Nursing and midwifery associate professionals	259	6%
335	Regulatory government associate professionals	258	6%
233	Secondary education teachers	243	5%
541	Protective Services Workers	208	5%
321	Medical and pharmaceutical technicians	195	4%
911	Domestic, Hotel and Office Cleaners and Helpers	162	4%
325	Other health associate professionals	142	3%
832	Car, Van and Motorcycle Drivers	126	3%
334	Administrative and specialized secretaries	125	3%
111	Legislators and senior officials	110	2%
226	Other health professionals	109	2%
134	Professional services managers	100	2%
333	Business services agents	98	2%
221	Medical doctors	95	2%
331	Financial and mathematical associate professionals	78	2%
441	Other clerical support workers	72	2%
235	Other teaching professionals	71	2%

Source: Public Service Commission

When the number of nursing and midwifery associate professional vacancies is added, the figure rises to 1 in 4 of all public sector vacancies are in these specific occupational types. When medical and pharmaceutical technicians, medical doctors and other professional and associate professional health workers are added, 1 in 3 public sector vacancies are in the health sector. Primary school and secondary school teachers in combination with other teaching professionals account for 16% of all vacancies.

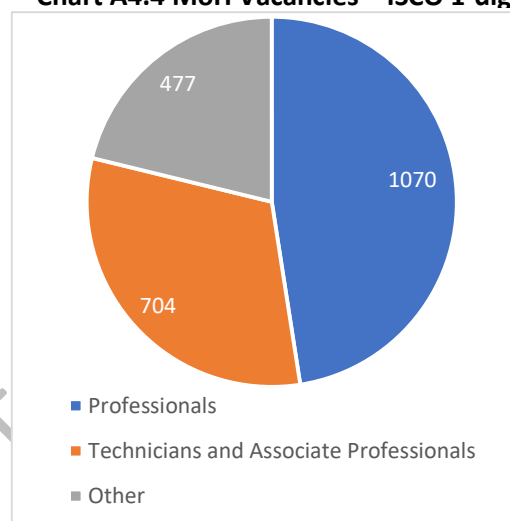
The following sub-sections examine at both the ISCO 1 and ISCO 3-digit levels the vacant occupational categories for each of the Ministries that have higher levels of vacancies.

7.2.1 Ministry of Health (MoH) Vacancies

At the ISCO 1-digit classification almost half of the vacant occupations in the MoH are at the professional level with a further third are at the technician and associate professional levels.

At the ISCO 3-digit classification the predominant vacant professional occupation is nursing and midwifery as shown in Table A4.5. Medical doctor positions follow with 118 vacancies. In combination with other health professionals (477) these three categories account for 97% of all professional MoH vacancies. The other health professionals category is comprised mainly of anaesthetists, pharmacists, and dentists.

Chart A4.4 MoH Vacancies – ISCO 1-digit



Source: PSC Data 2018

Vacancies within the technician/associate professional classification at the 3-digit level are mainly nursing and midwifery associate professionals with 256 vacancies or 36% of MoH vacancies at this ISCO classification. Medical and pharmaceutical technicians, and other health professionals are also well represented with 27% and 18% respectively. Anti-malaria (vector borne diseases) technicians, dispensers and bio-medical technicians are the more common vacant occupations among the other health professional group. Sanitation officer vacancies predominate the process control technician group.

Table A4.5 MoH Vacancies by Occupational Type (ISCO – 3-digit)

ISCO Class	Occupations	Number Vacant	% MoH Vacant
221	Medical doctors	118	11%
222	Nursing and midwifery professionals	824	77%
226	Other health professionals	95	9%
Main Vacancies - Professional Level			97%
321	Medical and pharmaceutical technicians	190	27%
322	Nursing and midwifery associate professionals	256	36%
325	Other health associate professionals	125	18%
313	Process Control Technicians	38	5%
Main Vacancies - Technician & Associate Professional Level			87%

Source: Public Service Commission

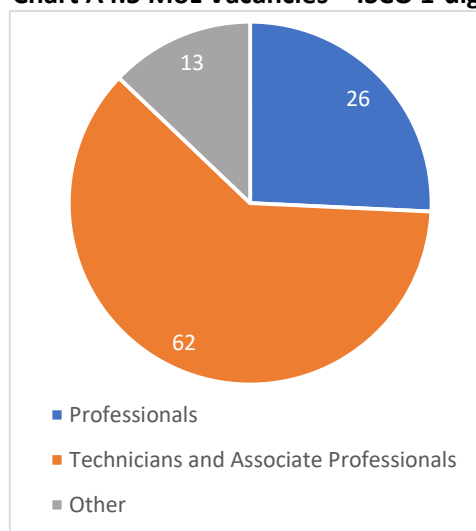
7.2.2 Ministry of Lands (MoL) Vacancies

While the number of vacancies in the Ministry of Lands (MoL) is not nearly as great as the MoH, the proportion is still very high with just on 50% of all MoL positions vacant. As shown in Chart A4.5 below, of the 101 vacancies, 61% are in the technician and associate professional category with further 26% in the professional classification.

The majority of the professionals classification is comprised of architects, planners, surveyors and designers with physical and earth scientists following. Together both of these occupational types account for 73% of the professional vacancies in the MoL.

In the technician/associate professionals classification, physical and engineering science technicians and Government regulatory associate professionals in combination make up 40% of the vacancies in the MoL at the ISCO 3-digit level. Business service agents, principally registration officers, also have relatively high vacancy rates. Financial and mathematical associate professionals and information and communications technology technicians are the two other areas where there are numerous vacancies.

Chart A4.5 MoL Vacancies – ISCO 1-digit



Source: PSC Data 2018

Table A4.6 MoL Vacancies by Occupational Type (ISCO – 3-digit)

ISCO Class	Occupations	Number Vacant	% MoL Vacant
216	Architects, Planners, Surveyors and Designers	14	54%
211	Physical and Earth Science Professionals	5	19%
Main Vacancies - Professional Level			73%
311	Physical and Engineering Science Technicians	13	21%
335	Government regulatory associate professionals	12	19%
333	Business Services Agents	11	18%
331	Financial and Mathematical Associate Professionals	5	8%
351	Information and Communications Technology Technicians	5	8%
Main Vacancies - Technician & Associate Professional Level			74%

Source: Public Service Commission

7.2.3 Ministry of Climate Change (MoCC) Vacancies

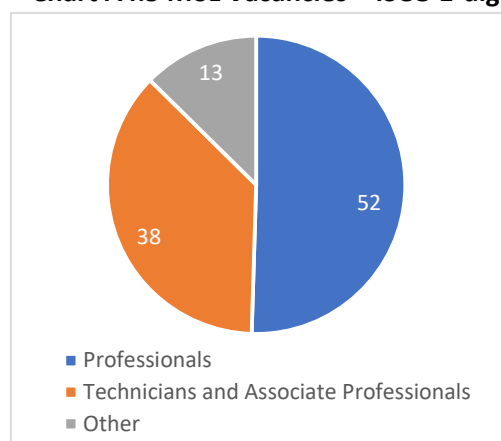
The MoCC has a similar number of vacancies to the MoL but in this case more than half of the vacancies relate to professional occupations. In combination with technician/associate professional occupations, 87% of all MoCC vacancies fall within these two ISCO 1-digit classifications.

On closer examination at the 3-digit level, 65% of the professionals classification vacancies are physical and earth science professionals, principally climatologists, forecasters and observers. Scientific Officers comprise the bulk of the life science professionals vacancies.

Amongst the life science technicians and related associate professionals vacancies, biologists, climate change and bio-diversity related occupations are the most frequently vacant. The regulatory government associate professionals group includes provincial disaster officers and provincial liaison officers.

Provincial officer vacancies are common across many ministries.

Chart A4.5 MoL Vacancies – ISCO 1-digit



Source: PSC Data 2018

Table A4.7 MoCC Vacancies by Occupational Type (ISCO – 3-digit)

ISCO Class	Occupations	Number Vacant	% MoCC Vacant
211	Physical and earth science professionals	34	65%
213	Life science professionals	5	10%
Main Vacancies - Professional Level			75%
314	Life science technicians and related associate professionals	10	26%
335	Regulatory government associate professionals	10	26%
311	Physical and engineering science technicians	6	16%
331	Financial and mathematical associate professionals	4	11%
Main Vacancies - Technician & Associate Professional Level			79%

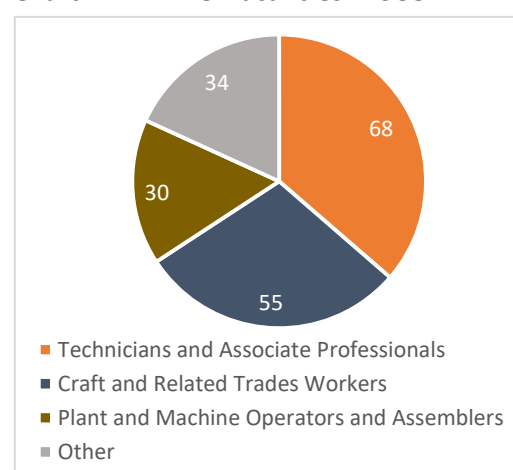
Source: Public Service Commission

7.2.4 Ministry of Public Utilities (MIPU) Vacancies

While some ministries rely heavily on professional occupational categories, it is clear that the Ministry of Public Utilities is dependent more on technician, trade and machine operator type occupational categories. In fact, 82% of all vacancies in MIPU are comprised of these three types at the ISCO 1-digit level.

At the Technician and Associate Professional level, the highest proportion of vacancies are at the supervisory level, principally asset maintenance, fleet and workshop, and road construction foremen. Electricians, general mechanics and heavy vehicle mechanics predominated at the Craft and Related Trade Workers classification.

Chart A4.7 MIPU Vacancies – ISCO 1-



Source: PSC Data 2018

Table A4.8 MIPU Vacancies by Occupational Type (ISCO – 3-digit)

ISCO Class	Occupations	Number Vacant	% MIPU Vacant
312	Mining, Manufacturing and Construction Supervisors	30	45%
335	Government regulatory associate professionals	9	14%
334	Administrative and Specialized Secretaries	8	12%
313	Process Control Technicians	7	11%
Main Vacancies - Technician & Associate Professional Level			82%
723	Machinery Mechanics and Repairers	30	55%
712	Building Finishers and Related Trades Workers	12	22%
711	Building Frame and Related Trades Workers	7	13%
Main Vacancies - Craft and Related Trade Workers Level			90%

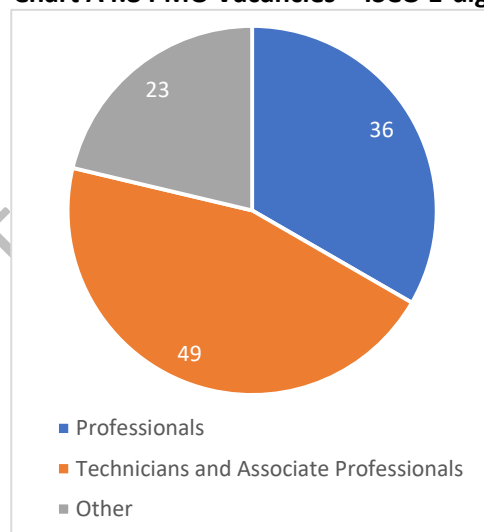
Source: Public Service Commission

7.2.5 Prime Minister's Office (PMO) Vacancies

The higher-level strategic policy and planning functions of the PMO require significant levels of professional and associate professional occupational types. Almost four in five of the PMO vacancies are in these two categories.

At the ISCO professional level, the highest level of vacancies was administration professionals, comprised mainly of principal officers, policy analysts and leadership occupations. Translators, scholarships officers, legal officers and environment and social mitigation officers were other occupations with multiple vacancies.

At the ISCO 3 technician and associate level – a high proportion of the regulatory associate professionals were investigators in the Ombudsman's Office. Office management and administrative officer positions also feature frequently as vacant positions, as are information and communication technology (ICT) officer positions – particularly in the provinces.

Chart A4.8 PMO Vacancies – ISCO 1-digit

Source: PSC Data 2018

Table A4.9 PMO Vacancies by Occupational Type (ISCO – 3-digit)

ISCO Class	Occupations	Number Vacant	% PMO Vacant
242	Administration Professionals	17	47%
264	Authors, Journalists and Linguists	5	14%
235	Other Teaching Professionals	4	11%
261	Legal Professionals	3	8%
213	Life Science Professionals	2	6%
Main Vacancies - Professional Level			86%

ISCO Class	Occupations	Number Vacant	% PMO Vacant
335	Government Regulatory Associate Professionals	18	37%
334	Administrative and Specialized Secretaries	8	16%
351	Information and Communications Technology Operations	8	16%
333	Business Services Agents	7	15%
Main Vacancies - Technician & Associate Professional Level			84%

Source: Public Service Commission

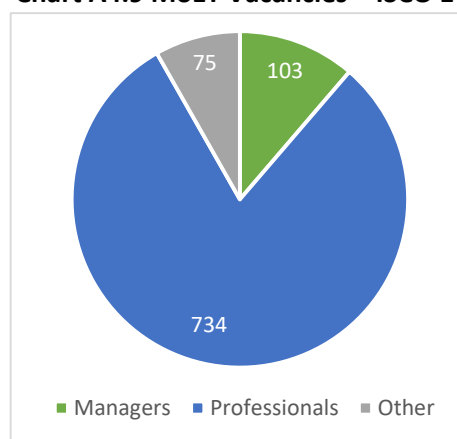
7.2.6 Ministry of Education and Training (MoET) Vacancies

Managers and professionals comprise 92% of all vacancies in MoET. The remaining vacancies relate mainly to administrative and ICT type roles.

All of the management vacancies are ISCO classified as professional services managers which in this case relate mostly to headmaster/mistress positions and a number of director and provincial education officer roles.

At the Professional Level, most vacancies (86%) are early childhood, primary, and secondary teacher positions. The other teaching professionals category includes a significant number of zone curriculum advisers, education inspectors and curriculum coordinators.

Chart A4.9 MoET Vacancies – ISCO 1-



Source: PSC Data 2018

Table A4.10 MoET Vacancies by Occupational Type (ISCO – 3-digit)

ISCO Class	Occupations	Number Vacant	% MoET Vacant
134	Professional Services Managers	103	100%
Main Vacancies - ISCO 1 Managers Level			100%
234	Primary School and Early Childhood Teachers	452	62%
233	Secondary Education Teachers	183	25%
235	Other Teaching Professionals	88	12%
Main Vacancies - ISCO 2 Professional Level			99%

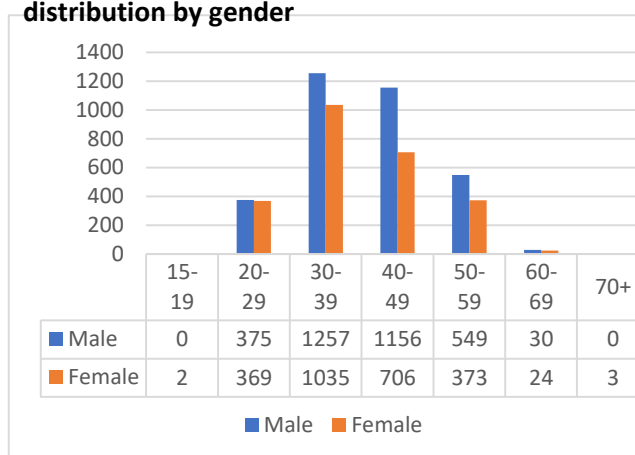
Source: Public Service Commission

4.3. Public Sector Demographics

Human resource development planning needs to account for the age of employees. Succession planning needs to be concerned about career progression, mandatory retirement ages and the preparedness of agencies to replace retirees.

The highest proportion of public sector employees is in the 30-49 age range. Significantly the numbers in the 50+ age range are greater than the numbers in the 20-29 age cohort. In fact, the average age of all public servants is just on 40 for both males and females. As the public service continues to age and many reach the mandatory retirement age of 55 with the middle age group filling the gaps created by retirees there should be concern that the relatively low numbers of younger employees will be insufficient to back fill the subsequent gaps created. Currently 132 public sector positions are occupied by people aged 55 and a further 188 are over 55.

Chart A4.10 Public sector employee age distribution by gender



Source: PSC Data 2018

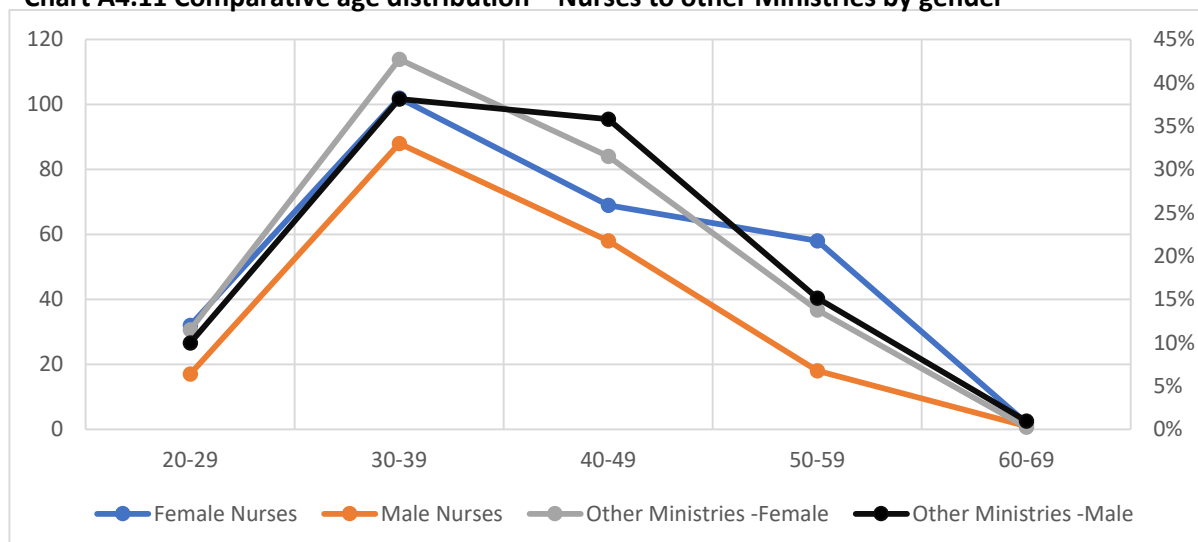
Table A4.11 looks at the age distribution across each of the Ministries that have significant vacancy levels as noted in Section 7.2 above. While the Lands and Climate Change Ministries have relatively young workforces, the Health and Education Ministries, both with numerically high number of vacancies, also have large numbers who are either approaching retirement or past the mandatory retirement age of 55.

Table A4.11 Public Service employee age distribution by selected Ministries

Age Group	Health		Lands		Climate Change		Public Utilities		Prime Minister		Education	
	F	M	F	M	F	M	F	M	F	M	F	M
15-19											2	
20-29	89	69	9	11	6	11	4	20	8	5	142	105
30-39	183	191	14	26	21	39	19	65	16	34	559	489
40-49	120	143	7	18	4	23	15	61	19	29	419	518
50-59	117	65	2	18	3	3	8	26	10	14	180	209
60-69	19	10			1	1			1		3	9
70+											2	
Average Age	40	41	35	32	36	37	40	40	40	41	40	41

Source: Public Service Commission

The relative rates of increase and decline in the number of employees within each age cohort is shown in Chart A4.11. In this analysis, nurses are specifically highlighted given the issues related to extremely high levels of nurse vacancies being compounded by an ageing nursing population.

Chart A4.11 Comparative age distribution – Nurses to other Ministries by gender

Source: PSC Data 2018

The proportional increase in employee numbers from the 20-29 to the 30-39 age groups is comparable between nurses and the other Ministries combined. Beyond this age group some variance in the proportional decline by age cohort occurs. From 30-39 the rate of decline for males in other Ministries is slower than for females in other Ministries and for both male and female nurses. This is understandable in the context of females leaving the workforce earlier than males for family reasons. However, the rate of decline in numbers is faster for male nurses in the 40-49 age cohort in comparison to males in other Ministries. This could possibly be due to the arduousness of the occupation in relation to other occupations. But this does not seem to be a factor for female nurses.

The rate of decline of female nurses between the 40-49 and the 50-59 age cohort is not only slower than male nurses, it is slower than the rate of decline for other Ministries as well. This points to there being a significant number of female nurses in the older age cohort compared to others. The replacement of these 136 nurses as they approach retirement needs to be considered.

Overall, almost 1,000 public servants are approaching or exceeding the mandatory retirement age of 55. As of June 2018, 406 (16%) female and 579 (17%) male public servants are 50 years or older

4.4. Skill Gaps

The Vanuatu Institute of Public Administration and Management (VIPAM) has throughout 2018 been developing a competency database to better inform its planning and delivery of programs that meet human resource development priorities across the public sector. As has been mentioned previously on numerous occasions so far in this document, getting coherent and consistent data in Vanuatu is difficult. It has also been a struggle for VIPAM to get the data from all of the Ministries, despite frequent following ups. As a result, the following analysis is drawn from only the seven Ministries that have submitted their data so far. In employment terms these seven Ministries represent only 19% of current public sector employees so any conclusions drawn from the data needs to be qualified accordingly.

VIPAM sought from the Human Resource Officers in each Ministry the identification of competencies that needed to be improved for each individual employee. From the seven Ministry data sets provided 46 separate competencies were identified which, because there were a number of

competency requirements identified for each employee, resulted in aggregate to 4,347 competency references. Table A4.6 shows the ten competencies which accounted for over half of all references.

Table A4.6 Top 10 Public Sector Competency Requirements (Aggregate of 7 Ministries) (n=4,347)

Competency Requirement	# References	% References
Punctuality, well presented	330	7.6%
Data Analysis	301	6.9%
Work discipline	263	6.1%
Decision making	244	5.6%
Provide operational assistance	232	5.3%
Manage & assess individual work plan in line agency business plans	230	5.3%
Problem solving skills	215	4.9%
Process/routine management	203	4.7%
Professional work	203	4.7%
Work without or with some Supervision	203	4.7%

Source: Vanuatu Institute of Public Administration and Management 2018

This data provides strong clues for VIPAM in determining its in-service training profile and it also provides individual line managers in the respective Ministries information about the areas for improved oversight and management.

Many of the 46 competencies referred to in the competency database are similar, e.g. *Leadership and Personal Effectiveness* and *Excellent Leadership*, or *Problem-solving skills* and *Achieve Results and problem solving*. In order to get a broader perspective and to get a comparison with the private sector the 46 competencies have been classified under five general headings as shown in Table A4.7.

Table A4.7 General/Basic Skills lacking in Public Sector Workforce in Comparison to Private Sector

General/Basic Skills Lacking	Public Sector % References N=4,347	Private Sector % References N=322
Self-management	42%	38%
Technical	25%	26%
Personal attributes	23%	20%
Language, literacy, numeracy	3%	11%
ICT	7%	5%

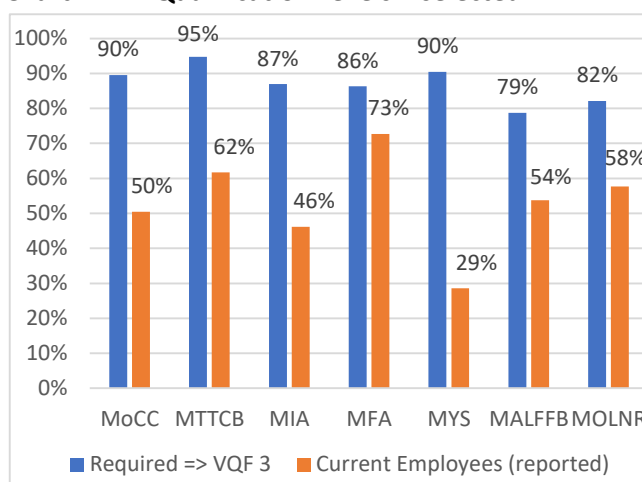
Source: VIPAM 2018 and Vanuatu Industry Survey 2018

As can be seen, there is a high level of comparability between the public and private sector perceptions as to the nature of skill gaps in the respective workforces. The greatest difference being in relation to language, literacy and numeracy where perhaps the overall level of educational attainment in the public sector is greater than in the private sector and that Bislama is the common language across the public sector.

The VIPAM database also includes the required qualification levels for each position and the highest educational attainment of the incumbent. The extent to which employee qualifications match the positional requirements is illustrated in Chart A4.12. It shows the proportion of qualifications required at the Vanuatu Qualifications Framework (VQF) Level 3 and above in relation to the proportion of employees who have reported corresponding levels of qualifications.

The Ministry of Foreign Affairs (MFA) leads in this analysis where 73% of staff have reported²⁵ qualifications equal to or above VQF level 3 and above compared to the 86% of positions that require these levels of qualification. The Ministry of Tourism, Trade, Commerce and Ni-Vanuatu Business (MTTCB) and the Ministry of Agriculture, Livestock, Forestry, Fisheries and Bio-security (MALFFB) follow where the level of employee qualifications is 62% and 54% respectively of the requirement. However, all the other Ministries' current levels of employee qualifications are 50% or below the qualification requirements.

Chart A4.12 Qualification Levels – selected



Source: VIPAM 2018

Where lower than required qualifications are impacting Ministry capacity to respond to NSDP objectives, opportunities need to be considered on a merit basis for employees to upgrade their qualifications possibly through a targeted scholarship program. It is critical though that every Ministry needs to submit its data as requested by VIPAM before full analysis is conducted (as above) and scholarship priorities are determined and agreed across Ministry portfolios.

4.5. Annex Summary

- There are a large number of vacant positions in the Vanuatu Public Service.
- The vacancies have arisen because of a number of factors including budget priorities, availability of people with required qualifications and skills, employment conditions in the public service.
- Irrespective of the reasons, the nature of the vacancies provides important clues for establishing human resource development priorities.
- As was the case in the private sector, most public sector vacancies are at the ISCO management, professional and technician/associate professional levels.
- MoH and MoET have the greatest number of vacancies across all occupations.
- At an occupational level nurse and midwife professional and associate professional positions have the most vacancies (1,100) followed by primary and secondary teachers (635).
- MoH has the highest proportion (69%) of vacancies in relation to total positions.
- Half of the Ministries have more than 40% of their established positions vacant.
- The public service has an ageing population with almost 1,000 approaching the mandatory retirement age particularly female nurses where there are 136 who are 50 years or older.
- A limited sampling of Ministries shows that general/basic skill levels lacking in the public sector are similar to the private sector with self-management, technical and personal attributes being the most frequently cited.
- Qualification levels of public servants in some Ministries are below the levels required.

²⁵ Current qualifications have not been reported for every employee. This analysis is based on an assumption that all non-reported qualifications are below Certificate Level III. It may well be a number of non-reported qualifications are => Certificate III and if they were included the levels shown in Chart A4.12 would be better than they are currently.

ANNEX 5 - FOREIGN WORKERS IN VANUATU

5.1. The national composition of foreign workers in Vanuatu

The number, occupations and qualifications of foreign workers granted work permits is another indicator of skill shortages and skill gaps in the national labour force. As outlined previously, respondents to the 2018 *Industry Survey* rated *finding skilled workers* as the most significant issue and the *cost of foreign workers* the least significant issue amongst a list of 10 business related issues. In the same survey, employers indicated a preference for employing ni-Vanuatu workers with more than 82% of respondents either disagreeing or strongly disagreeing with the suggestion that they preferred to employ foreign workers.

In this context, it is reasonable to assume that there would be less reliance on foreign workers if employers could find ni-Vanuatu with the requisite skills, qualifications and experience.

The Department of Labour has provided details of 901 foreign workers with current (2018) work permits. While there are over forty nationalities represented by the foreign workers, a very high proportion (over 70%) come from just 5 countries as shown in Table A5.1. The highest proportions coming from Australia, China and the Philippines. Overall, 25% of foreign workers are female although the proportion varies country by country. While only around 22% of Australian and Chinese workers are females, 30 % of Filipino workers are female.

Table A5.1 – Number of Foreign Workers by Top 5 Country of Origin and Gender

Rank	Country of Origin	Total	%	Male	Female
1	Australian	162	18.0%	126	36
2	Chinese	153	17.0%	118	35
3	Filipino	148	16.5%	103	45
4	Fijian	100	11.0%	74	26
5	French	67	7.5%	55	12
		630	70.0%	476	154

Source: Department of Labour Foreign Worker data 2018

5.2. Occupational categories of foreign workers in Vanuatu

Table A5.2 demonstrates that at the 1-digit ISCO level there is a high concentration of foreign workers (86%) in ISCO categories 1 to 3. The remainder are virtually all in ISCO 5 and ISCO 7 levels.

Table A5.2 – ISCO Occupational Categories (1-digit level)

ISCO Category	ISCO Occupations (1 Digit level)	% N=900
ISCO 1	Managers	29.4%
ISCO 2	Professionals	26.7%
ISCO 3	Technicians and Associate Professionals	29.7%
ISCO 5	Services and Sales Workers	5.1%
ISCO 7	Craft and Related Trades Workers	8.1%
	Other	1.0%

Source: Department of Labour Foreign Worker data 2018

The relative proportions by gender of foreign worker occupational types in relation to ISCO 1-digit categories are provided in Table A5.3. While it is to be expected that across the 5 major countries of origin the nature of their occupations correlates closely to the overall numbers in Table A5.1, there is some variance in the gender breakdown. The proportion of Filipino women is higher than for other countries principally because of a relatively high number in wholesale and retail sales at the ISCO 1 and 3 levels, and strong representation at the ISCO 2 level primarily in Finance and Health. The relatively high proportion of Australian female professionals is predominantly focused in the Health and Education sectors.

Table A5.3 – Percentage of Foreign Workers by Gender and Occupational Type (ISCO 1-digit)

ISCO Class	ISCO Occupations (1 Digit level)	Aust. N=162		Chinese N=153		Filipino N=148		Fijian N=100		French N=67	
		M	F	M	F	M	F	M	F	M	F
ISCO 1	Managers	31	6	19	11	18	7	22	8	25	9
ISCO 2	Professionals	18	9	12	4	14	10	26	11	18	3
ISCO 3	Technicians and Associate Professionals	25	7	26	6	16	5	19	6	30	3
ISCO 4	Clerical Support Workers						1				
ISCO 5	Services and Sales Workers			6	2	5	7	3	1	3	
ISCO 6	Skilled Agricultural, Forestry & Fishery Workers									1	1
ISCO 7	Craft and Related Trades Workers	4		14		16	1	3		4	1
ISCO 8	Plant and Machine Operators and Assemblers					1		1			
ISCO 9	Elementary Occupations										
% by Gender by Country		78	22	77	23	70	30	74	26	82	18

Source: Department of Labour Foreign Worker data 2018

The following series of charts provide more specific detail at the ISCO 3-digit level of the nature of occupations currently being filled by foreign workers. Chart A5.1 shows that at the management level, three in five foreign workers are engaged in retail and wholesale trade, and the tourism sector. There is also a range of other specialised manager types including construction, ICT and agriculture.

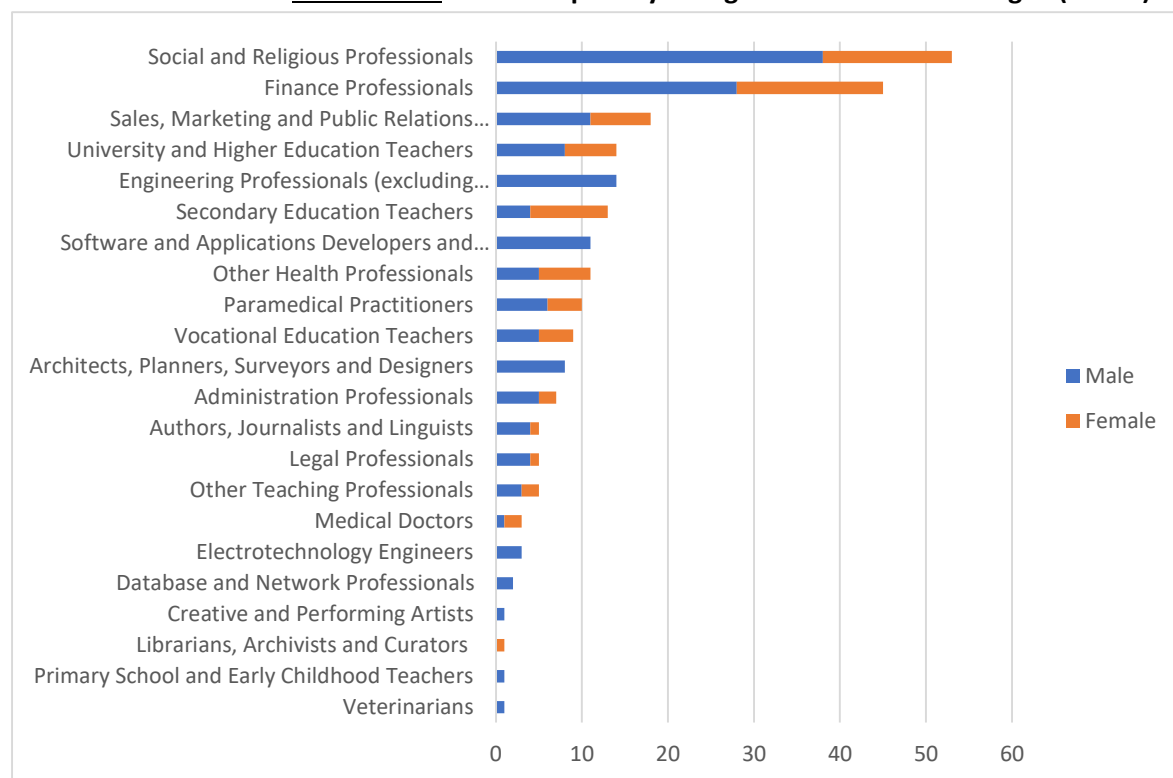
Chart A5.1 – Nature of Management roles occupied by foreign workers at ISCO 3-digits (n=264)



Source: Department of Labour Foreign Worker data 2018

Chart A5.2 shows at the ISCO 2 level a high proportion of Social and Religious Professionals mainly due to a high number (41) of missionaries represented in the foreign worker population. Below this group there is a wide range of professional occupations currently been undertaken by foreign workers predominantly in the finance and sales, marketing and public relations areas.

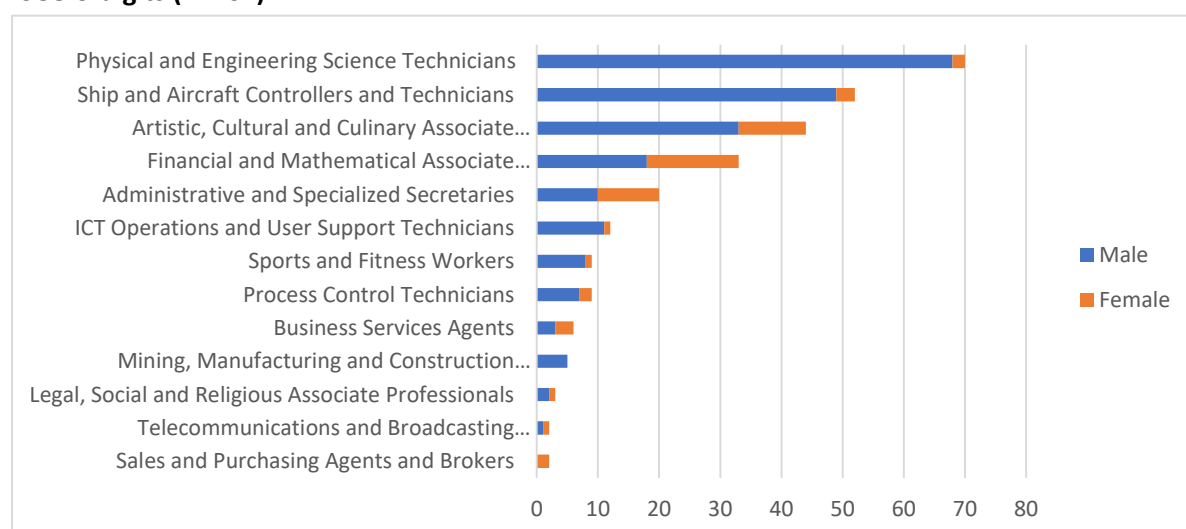
Chart A5.2 – Nature of Professional roles occupied by foreign workers at ISCO 3-digits (n=240)



Source: Department of Labour Foreign Worker data 2018

The large number of physical and engineering science technicians at the ISCO 3 level in Chart A5.3 are concentrated in the construction industry.

Chart A5.3 – Number of Technician & Associate Professional roles occupied by foreign workers at ISCO 3-digits (n=267)

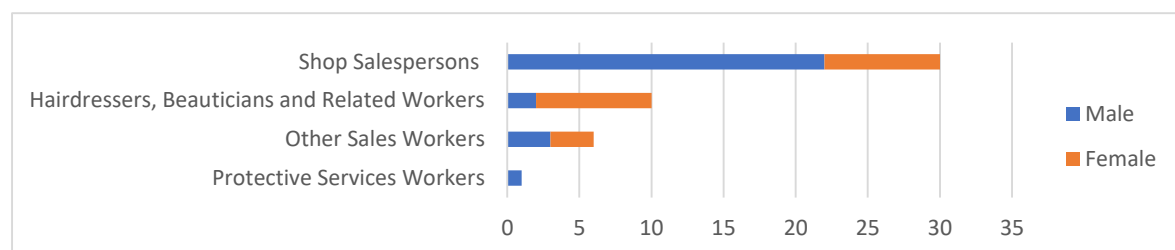


Source: Department of Labour Foreign Worker data

The other higher numbers are reflective of the importance of the tourism and financial sectors in Vanuatu and more generic requirements for ICT and administrative support.

Service and Sales roles as shown in Chart A5.4 are mostly in retail and tourism related services including massage and spa.

Chart A5.4 – Number of Service and Sales roles occupied by foreign workers at ISCO 3-digits (n=47)

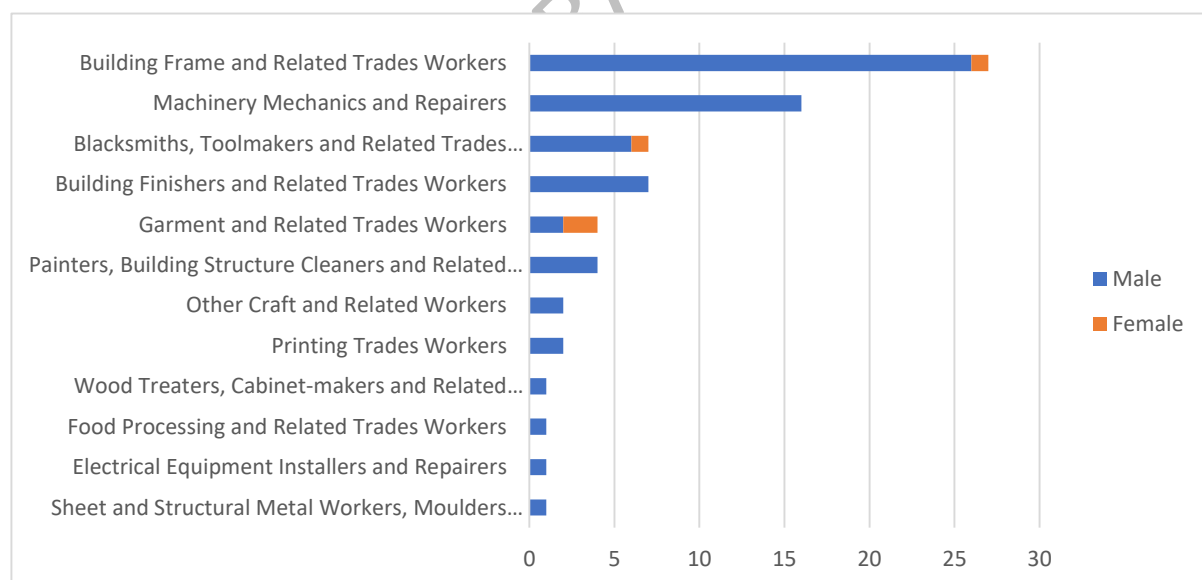


Source: Department of Labour Foreign Worker data

Chart A5.5 shows a concentration of craft and trades foreign workers in the construction industry in parallel to the similar concentration of foreign technician and associate professionals illustrated in Chart A5.3. It is apparent that the large infrastructure projects currently being implemented by China and Australia have significantly influenced this result. Of all Chinese and Australian foreign workers, 46% and 36% respectively are engaged in construction related activities.

Smaller number of other craft and trade workers are engaged in garment manufacture, food processing and printing.

Chart A5.5 – Number of Craft and Related Trades Workers roles occupied by foreign workers at ISCO 3-digits (n=73)



Source: Department of Labour Foreign Worker data 2018

5.3. Annex Summary

- There is a significant number of foreign workers in Vanuatu.
- Data for 900 foreign workers has been provided by the Department of Labour.
- 75% of foreign workers are male.
- The nature of the occupations being filled by foreign workers is an indication of skill shortages in the local labour market.

- Employers would prefer to employ ni-Vanuatu workers if they are available with the relevant qualifications and skill sets.
- Most foreign workers are employed as either managers, professionals or technicians/associate professional.
- This is consistent with the pattern of skill shortages reported in the private and public sectors in previous Annexes.
- There is also a substantial number of craft and related trades workers.
- Chart A5.6 provides a summary of the occupations currently being undertaken by foreign worker – many of which could readily be provided by ni-Vanuatu workers if they had the required skill levels.

Chart A5.6 – Top 20 foreign worker occupations at ISCO 3-digits (n=672)



Source: Department of Labour Foreign Worker data 2018

ANNEX 6 - INTERNATIONAL LABOUR MARKETS

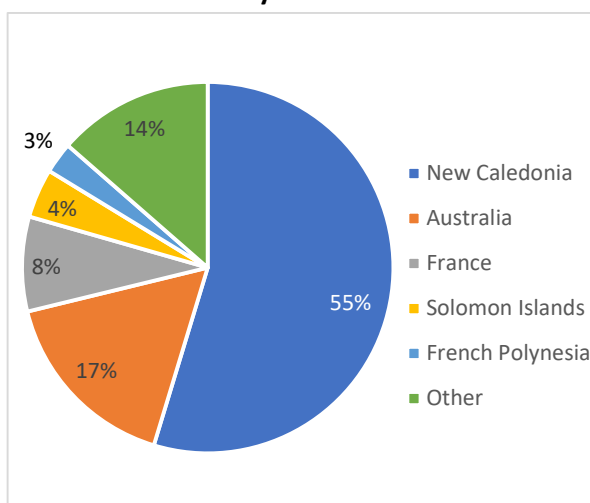
6.1. Mid to long term emigration

The World Bank Bilateral Estimates of Migrant Stocks in 2017²⁶ suggest that over 9,000 ni-Vanuatu have emigrated to around 35 countries worldwide. More than half of these, totalling 5,000 plus, have emigrated to New Caledonia. Sizeable numbers of ni-Vanuatu emigrants can also be found in Australia (1,530), France (764), Solomon Islands (397) and French Polynesia (251). In all, the proportion of ni-Vanuatu emigrants to the total population in 2016 of 272 thousand was 3%.

In contrast, Tonga with a 2016 population of 107,000, has over 62,000 emigrants or 58%. Through historical ties and special arrangements with New Zealand and the United States there has been a long history of Tongan emigration to these countries. However, the relatively large number of Tongans in Australia cannot be explained in the same way as there has not been the same traditional links. It is perhaps then a product of Tongans, compared to ni-Vanuatu, having a greater openness to emigration based on the more general experiences of population as a whole.

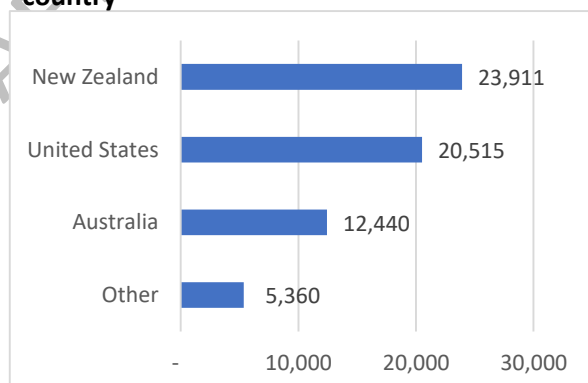
As Chart A6.2 indicates there are over 12,000 Tongans resident in Australia compared to 1,530 ni-Vanuatu and at the current rate emigration it will be a very long time before ni-Vanuatu emigration comes close to its Pacific neighbour. Over the past 5 years there has only been 103 ni-Vanuatu who have become residents in Australia as shown in Table A6.1.

Chart A6.1 ni-Vanuatu Emigration by destination country



Source: World Bank Bilateral Estimates of Migrant Stocks in 2018

Chart A6.2 Tongan Emigration by destination country



Source: World Bank Bilateral Estimates of Migrant Stocks in 2018

Table A6.1 ni-Vanuatu Permanent additions to Australia 2012 -2017 by type

	2012-13	2013-14	2014-15	2015-16	2016-17	Total
Family Stream	24	11	14	16	13	78
Skill stream	5	5	8		2	20
Non-program			4	1		5
Total	29	16	26	17	15	103

Source: Australian Department Immigration and Border Protection²⁷

²⁶ <https://www.knomad.org/data/migration/emigration?page=24>

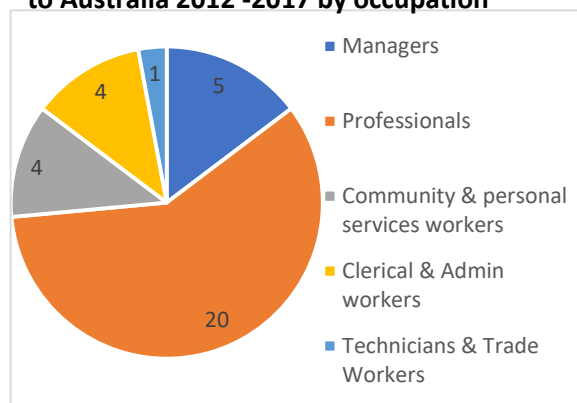
²⁷ <https://data.gov.au/dataset/permanent-additions-to-australia-s-resident-population>

The occupational types of the economically active ni-Vanuatu emigrants to Australia over the past 5 years is shown in Chart A6.3. In total 75% are in the two highest ISCO classifications – managers and professionals. Just on six out of ten have been classified as professionals.

To further illustrate the slow up-take of ni-Vanuatu to consider emigration, it is interesting to note that since its inception in 2008, the Australian Pacific Technical College (APTC) has graduated over 1,800 ni-Vanuatu students with a range of Australian qualifications from Certificate III to Diploma. Many of these qualifications would qualify for skilled migration purposes and yet over the decade only 59 APTC ni-Vanuatu graduates have emigrated.

As indicated in Table A6.2 the majority (69%) of these have gone to Australia mostly with hospitality and tourism related qualifications. Of the total who have emigrated, 36% have been females and for 80% of these Australia has been their destination.

Chart A6.3 ni-Vanuatu Permanent additions to Australia 2012 -2017 by occupation



Source: Australian Department Immigration and Border Protection

Table A6.2 APTC ni-Vanuatu Graduates who have emigrated by qualification, gender and destination country

	Australia		Côte d'Ivoire		Fiji		Marshall Islands		New Zealand	
	M	F	M	F	M	V	M	F	M	F
Certificate III in Carpentry	1								1	
Certificate III in Hospitality	2	4								
Certificate III in Hospitality (Commercial Cookery)	1				1				1	
Certificate III in Tourism	5	3			1				1	
Certificate III in Tourism	5	3			1				1	
Certificate IV in Community Development	1		2			1				
Certificate IV in Hospitality	2	4								
Certificate IV in Hospitality (Supervision)	1									
Certificate IV in Training and Assessment	2	2				1	2		2	1
Certificate IV in Youth Work	1					1			1	
Diploma of Management	3	1								
	24	17	2		3	3	2		7	1

Source: Australian Pacific Technical College Annual Reports

The benefits derived from labour mobility have been well documented. A recent study (Curtain et al 2017)²⁸ noted that, while under a high growth strategy increased labour mobility could double per capita income growth rates across the Pacific by 2040, it could triple income growth for Vanuatu

²⁸ Curtain, R; Howes, S; Dornan, M; and Doyle, J; 2017, 'Pacific Possible-Labour mobility: the ten billion dollar prize', The Australian National University and World Bank

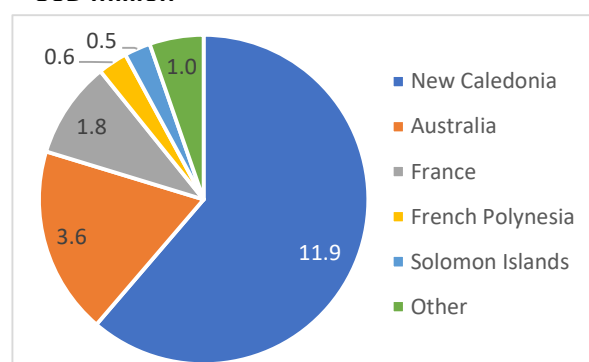
over the same period. The sources of the USD19 million remittances to Vanuatu is commensurate with the number of ni-Vanuatu migrants in each destination country with almost USD12 million coming from ni-Vanuatu in New Caledonia. A further USD3.6 million and USD1.8 million is remitted from Australia and France respectively.

Over the past 37 years (Chart A6.5), the World Bank estimates that remittances flowing from ni-Vanuatu emigrants has amounted to over USD300 million in current dollar terms.²⁹ While in aggregate, this would appear to be a reasonable amount, in actuality it only averages around USD8 million per year.

Over the past decade, the average value of remittances has doubled in comparison to the four-decade average, but it still remains low compared to the other countries in the Pacific that have traditionally had high levels of labour mobility.

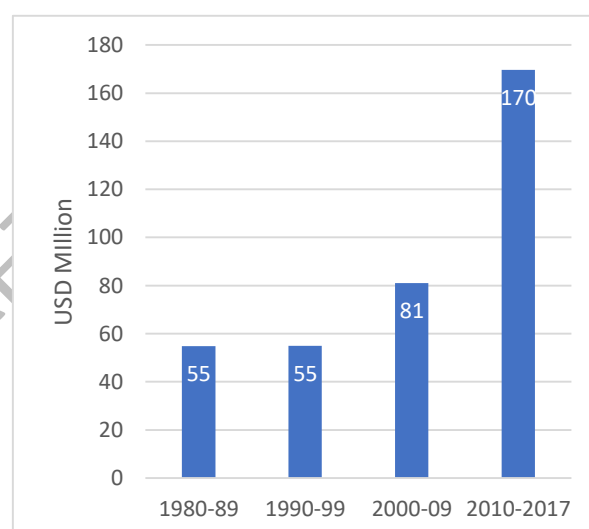
Chart A6.6 compares Vanuatu remittance inflows over the past 5 years to a number of other Pacific countries. Curtain (2017) notes that Vanuatu, along with its fellow Melanesian countries PNG and the Solomon Islands have amongst the lowest rates of emigration in the World which in turn is reflected in comparatively low levels of remittances.

Chart A6.4 Vanuatu remittance inflows 2017
USD million



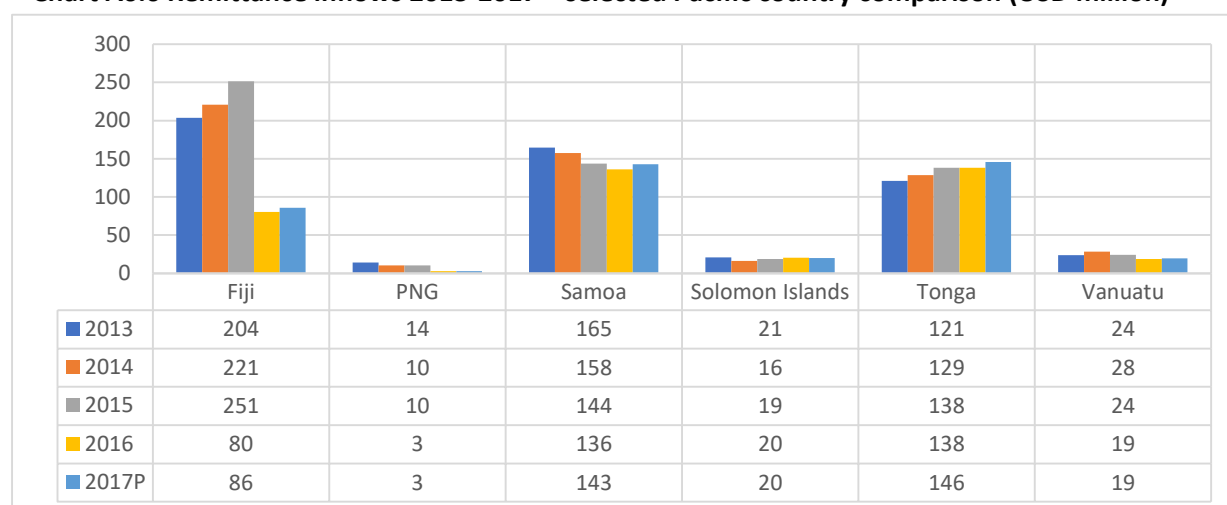
Source: World Bank Bilateral Remittance Matrix 2017

Chart A6.5 Vanuatu remittance inflows 1980-2017 by decade
USD million



Source: World Bank Remittance Data Inflows 1970-2017

Chart A6.6 Remittance inflows 2013-2017 – selected Pacific country comparison (USD million)



Source: World Bank Remittance Data Inflows 1970-2017

²⁹ <https://www.knomad.org/data/remittances>

The question arises as to why the Melanesian countries have not pursued the economic advantages of long-term emigration. A major reason has been that they have not had free labour market access to the USA and NZ as their Polynesian neighbours Samoa and Tonga. This in turn has meant there is a reduced number of ties in destination countries which impedes information flows about possible opportunities and reduces familial and community support for new migrants. Given the requirement for employer sponsorship for skilled migration, lack of networks in destination countries, inhibits linkages with potential employers.

A lack of supportive structures in the home countries is also a factor. There is generally a lack of mechanisms such as labour market intelligence services to identify employment opportunities in international labour markets. There is also a lack of information available about processes and procedures required to emigrate, particularly outside urban areas where access to communication infrastructure may be weak. Overlaying all of these difficulties is the cost of emigration, particularly the cost of visas and the upfront costs that have to be met including transport and accommodation during settling-in periods. This problem for Melanesian countries is compounded also by the reduced number of existing emigrants who could otherwise assist with levels of travel sponsorship including short term accommodation for emigrants on arrival.

A major impediment is the level of qualifications held by prospective emigrants and the qualification standards required by destination countries to access skill migration streams. One of the reasons why only 2.5% of APTC graduates³⁰ have taken up opportunities in international labour markets was noted by a 2014 Independent Review of the APTC³¹ which found that less than half of APTC graduates had eligible qualification levels for skilled migrant entry into Australia or NZ.

This finding is highly pertinent to the National Human Resource Development Plan in that if the Government was to consider implementing measures to promote the opportunities arising from longer term emigration it will be essential to consider the type and level of qualifications required by destination countries. Annex 8 examines in detail the Vanuatu school and post-school education and training systems and their current capacity to meet skill demand in national and international labour markets.

The extent to which Government embraces mid to long term emigration within its national development objectives needs to be balanced in a way that it adds value to national productive capacity. Real concerns related to 'brain drain' and diminished levels of manpower to support in-country agriculture, manufacturing and service sectors need to be addressed. PSET providers and the scholarship program need to be proportionately geared to serve both national and international labour markets to ensure this balance is achieved.

³⁰ APTC Annual Report 2016-2017

³¹ 2014 Independent Review – APTC Chapter 7 Labour Mobility

6.2. Circular Labour Mobility - Temporary visa programs

Vanuatu has been an active and substantial participant in both the New Zealand Recognised Seasonal Employer (RSE) scheme and the Australian Seasonal Workers Program (SWP) since their respective inception in 2007 and 2012. The 2016 mini-Census reported 5,546 ni-Vanuatu had participated in one or both of the temporary visa programs. Given its earlier start and Vanuatu's early take-up, 4,537 ni-Vanuatu have RSE experience compared to 1,009 with SWP experience.

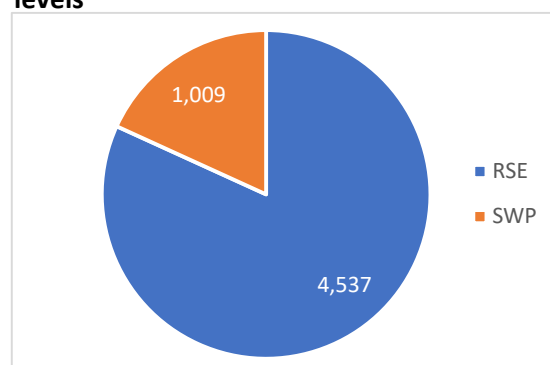
In both cases, males have outnumbered female participants with just 17% of RSE and 24% of SWP being female. The reason for this gender disparity is thought to be largely a product of the demand led nature of the schemes and that employers in NZ and Australia have a preference for male workers.³² There is also some concern by some community leaders, particularly in Vanuatu, that women were being discriminated against. (World Bank, 2018)

Participation rates across the six provinces in Vanuatu have varied considerably. In both numeric and percentage of population terms, the largest participation rate has come from Shefa Province. Over 2,500 men and almost 700 women from Shefa have participated in one or other of the temporary visa schemes. In total this represents 6% of the Shefa population. In comparison at the other end of the scale, only 1% of the Penama population has participated - 216 men and 23 women. The relative participation rates of the other provinces as a percentage of their population are:

- Tafea 4%
- Torba 3%
- Sanma 3%
- Malampa 2%

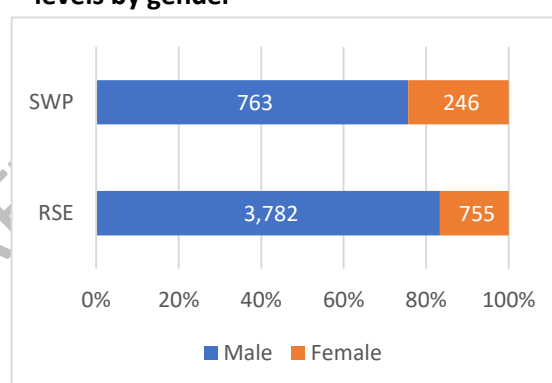
Access to information is an important reason for the variation in provincial participation but probably more significant is access to services and associated costs of getting medical clearances and visas.

Chart A6.7 Vanuatu RSE & SWP participation levels



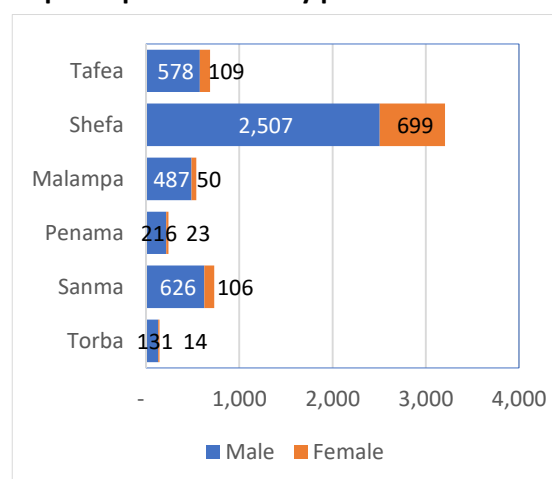
Source: mini-Census 2016 VNSO

Chart A6.8 Vanuatu RSE & SWP participation levels by gender



Source: mini-Census 2016 VNSO

Chart A6.9 Vanuatu RSE & SWP participation levels by province



Source: mini-Census 2016 VNSO

³² Doyle, J; Sharma, M; Maximizing the Development Impacts from Temporary Migration: Recommendations for Australia's Seasonal Worker Programme (World Bank 2018)

The figures provided by the 2016 Census indicate the number of ni-Vanuatu who have availed of the temporary visa programs. However, the actual number of times ni-Vanuatu have participated is much greater as revealed in Table A6.3 and Chart A6.10

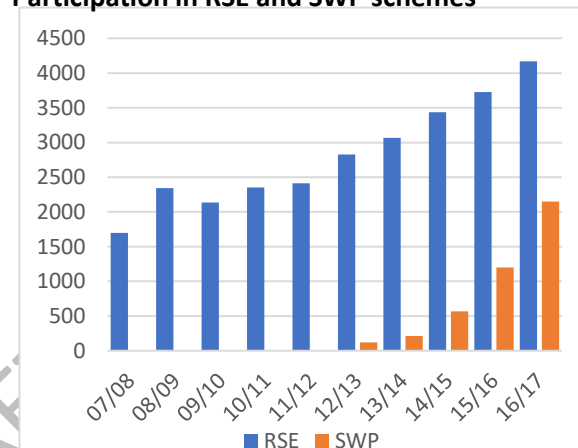
Table A6.3 Annual ni-Vanuatu Participation in RSE and SWP schemes

Years	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	Total
RSE	1,698	2,342	2,137	2,352	2,412	2,829	3,070	3,435	3,726	4,171	28,172
SWP						119	212	567	1,198	2,150	4,246

Source: Ministry of Business Innovation & Employment, NZ Government (2018)³³ and Doyle et al (2018)

In total, 28,172 temporary visas have been issued to ni-Vanuatu under the RSE scheme. This equates, on average, to every participant having worked in NZ on 6 occasions under the scheme. For the SWP, 4,246 temporary visas have been issued which means on average each participant has worked in Australia on 4 occasions. In relative terms this is quite high in comparison to the NZ experience given that at the time of the 2016 Census the SWP had only been in operation 4 years. Again, this phenomenon is seen to be a product of the employer led system and their preference to recruit workers that they already know.

Chart A6.10 Annual ni-Vanuatu Participation in RSE and SWP schemes

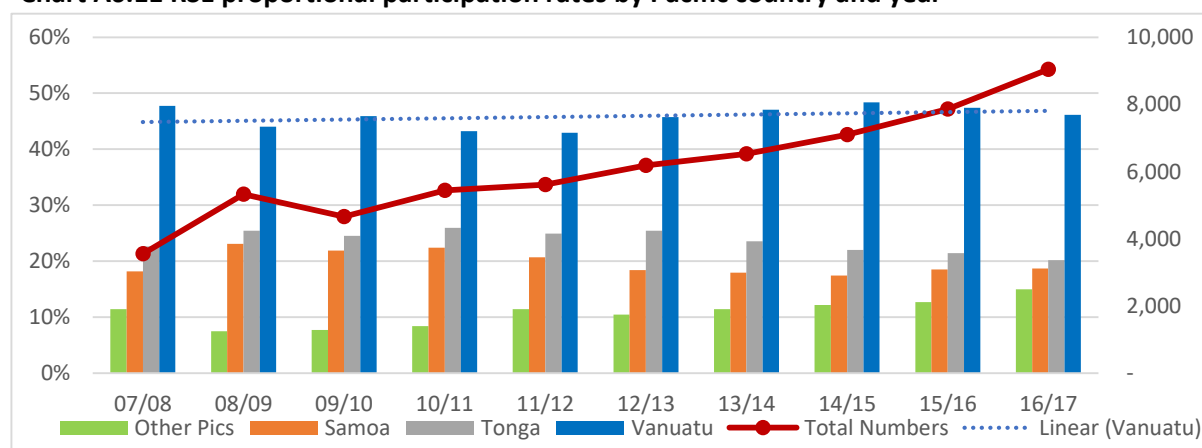


Source: NZ Government (2018) and Doyle et al (2018)

As Chart A6.10 indicates, Vanuatu has been a strong contributor to the RSE scheme since its inception and participation levels are continuing to grow. Strong growth is also shown in the SWP program.

At the time of RSE Scheme's inception, Vanuatu had an early advantage over other countries due to a deliberate preference by NZ growers to select workers from countries that did not already have a significant presence in NZ³⁴. It has maintained its dominant position over the past 10 years with consistently more than 40% of all Pacific Island participants each year.

Chart A6.11 RSE proportional participation rates by Pacific country and year



Source: NZ Government (2018)

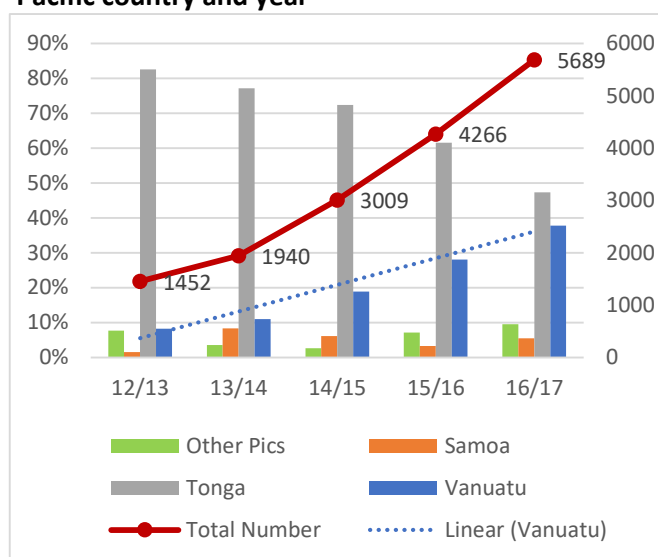
³³ <https://www.immigration.govt.nz/about-us/research-and-statistics/research-reports/recognised-seasonal-employer-rse-scheme>

³⁴ Curtain, R; The History of Labour Exports (unpublished 2018)

While Vanuatu was originally included in the SWP pilot scheme severe institutional capacity constraints prevented more ni-Vanuatu workers from participating at the beginning.³⁵ Over the past 5 years, the Vanuatu SWP participation rate has increased steeply to the point where it is now approaching similar numbers to Tonga which, from the beginning has been the major contributor.

As Chart A6.12 indicates, Vanuatu's proportional share has been trending upwards as the overall numbers of participants have grown. If the current trend continues, Vanuatu will become the major contributor to the SWP as it is for the RSE.

Chart A6.12 SWP proportional participation rates by Pacific country and year



Source: Doyle et al (2018)

From the statistics presented above there is clearly strong appetite in Vanuatu for continuing participation in both the New Zealand and Australian temporary visa programs. Presumably, this continuing appetite is based on real or perceived net benefit to participants.

Curtain et al (2017) considered a number of reviews of the RSE scheme and concluded per capita income increased by over 30% for participating households relative to comparison groups. They also found expenditure and savings increased and that participants were more likely to open bank accounts.

For the SWP, Doyle et al (2018) found that the Net Annual Gain for workers was AUD7,425 and the level of savings of participating households was VUV16,646 higher than non SWP households. Expenditure levels were also higher with SWP households on average spending more than VUV25,000 per year than non SWP households. Other indicators include a higher propensity of SWP households to invest in home improvements and the purchase of assets. In Vanuatu these were typically farm equipment and televisions. Importantly, over 30% of SWP households reported that SWP income had been used to start a business.

At the macroeconomic level, one 2010 study³⁶ estimated that NZ\$9.7 million was injected into the Vanuatu economy. There is also evidence that, participants invest in community assets. Over the life of the SWP, the total injection to the Vanuatu economy has been over AUD31 million.

In addition, there is a view that labour mobility can help address the significant youth unemployment levels as reported in Annex 2.

There is also opportunity for seasonal workers to gain transferable skills while on the job overseas. In earlier stages of both schemes the extent of transferable skills was thought to be limited given the focus on temperate climate viticulture and horticulture but as the schemes have matured so has

³⁵ Doyle et al (2018)

³⁶ Gibson, J, and McKenzie, D. 2010. "The development impact of a best practice seasonal worker policy." Policy Research Working Paper 5488, World Bank, Washington DC

their concern to offer opportunities for skills transfer. Both the RSE and SWP now offer add on skills training opportunities including English literacy, numeracy, information technology and first aid. In some instances, workers are provided opportunities to gain plant and equipment operation skills. In NZ where the scheme has extended into construction following the Christchurch earthquake, workers have undergone recognition of prior learning (RPL) processes and gap training has been provided to enable the participating workers the opportunity to gain a NZ trade qualification.

From this brief analysis it is clear that the circular labour mobility programs generate measurable benefits at the individual, community and national levels but the research also points to areas where improvements could be made. Critical areas for consideration in this regard are embodied in a side agreement to PACER Plus, where all of the Pacific Forum countries apart from Fiji and PNG, have signed or signified their intention to sign an *Arrangement on Labour Mobility*. The key objectives of this Arrangement are to:

- a. establish a broad regional framework for labour mobility cooperation, including through establishing a Pacific Labour Mobility Annual Meeting (PLMAM) to advance areas of cooperation identified in this Arrangement;
- b. enhance labour mobility schemes, including Australia's SWP and New Zealand's RSE to maximise the development benefits for all participating countries;
- c. promote the utilisation of other labour mobility opportunities in Australia and New Zealand for the Developing Country Participants;
- d. *strengthen the legislative, regulatory and institutional frameworks for labour mobility in the participating countries;*
- e. *facilitate the circulation of temporary workers amongst the Participants;*
- f. *consider the social issues associated with the circular migration of workers from Developing Country Participants to Developed Country Participants;*
- g. *support efforts to build the labour supply capacity of the developing country Participants through the provision of relevant education and training opportunities for their nationals; and*
- h. *explore opportunities to facilitate the recognition of qualifications throughout the region by encouraging competent bodies within their territories to cooperate with each other.*

A number of these objectives (*italicised*) are significant from a NHRDP perspective and can be considered under three broad headings – Access, Relevance and Quality.

As has been identified above, there are geographic disparities in participation rates. There needs to be strategies to lower barriers for participation by workers from poorer and more remote locations. By strengthening institutional frameworks that facilitate improved communication flows and easier access to requisite medical examinations and visa processing, more workers from poor and remote areas will have improved access to the opportunities available. In addition, inequalities created by some rural communities having better access to the schemes will be lessened.

While it is understandable, being a demand led system, that employers might prefer to re-employ known workers, from an access and equity perspective it is important that strategies to facilitate opportunities for newcomers be implemented. For example, a level of wage subsidy for unemployed youth who meet eligibility criteria, to provide incentives for employment by lowering the cost to employers. Related to this, is the development of exit strategies that facilitate workers leaving the schemes such as financial literacy, basic business, and entrepreneurship training.

There are also gender based disparities that need to be considered. While the indications are that employers prefer male employees, similar strategies could be implemented as those described above for unemployed youth, to provide incentives for the employment of females. The current expansion of schemes to broaden occupational categories beyond the original viticulture and horticulture will also further facilitate expanded female participation.

To reduce negative social impacts Curtain et al (2017) suggest a range of approaches including social impact awareness briefings, facilitated access to international communications systems where these are weak, funding formal social protection programs and family support services particularly in regard to gender-based violence.

It is essential that labour mobility schemes do not create skill shortages and loss of production in the national economy. Already there is anecdotal evidence that the productive capacity of communities has been severely diminished during the periods that workers are overseas. It is therefore essential that national labour supply capacity is strengthened. Curtain et al (2018) suggest that Pacific country concerns about brain drain need to be addressed by developing a national skills strategy, a point that is entirely consistent with the Vanuatu Government's intention to develop this National Human Resource Development Plan. The purpose being to ensure investments in education and training respond to quality standards and are focussed on relevance to skill demand in national and international labour markets.

6.3. Annex Summary

- Vanuatu has very low emigration levels compared to some other countries in the Pacific, particularly Tonga, and Samoa.
- A primary reason has been the lack of free access to international labour markets that Tonga and Samoa have enjoyed in NZ and the USA.
- Another important reason is that ni-Vanuatu have lacked the qualification standards required for skilled migration programs.
- Other than family members, most ni-Vanuatu migrants in Australia are either managers or professionals.
- More than half of ni-Vanuatu emigrants are in New Caledonia with a further 17% in Australia.
- The low number of emigrants has meant that the level of remittances is very low compared to Tonga and Samoa, e.g. USD19 million c.f. Tonga USD146 million in 2017.
- It also means there are limited networks to support additional skill-based migration that require employer sponsorship.
- Vanuatu has been a strong contributor to both the NZ RSE scheme and the Australian SWP
- More than 5 ½ thousand have participated multiple time with over 28,000 RSE places since 2007 and over 4,000 SWP places since 2012.
- Participation rates have not been evenly spread throughout the country ranging from Shefa with 6% of its population participating compared to Penama with 1%.
- More men than women have participated in both schemes principally thought to reflect employer preferences.
- Successive research has identified significant benefits arising from both permanent emigration and circular labour mobility programs.
- However, there are existing and potential negative impacts that need to be addressed if international labour markets are to be considered as an integral component of national human resource planning.

ANNEX 7 - SECTORAL ANALYSIS

7.1. Agriculture Livestock, Forestry, Fisheries and Bio-Security Sector

In 2016 the Agriculture, Forestry and Fishing sector accounted for around 19% of total GDP with Crop Production being the predominant contributor. Table A7.1 shows the relative share of GDP contributed by each primary production component.

Table A7.1 Relative contribution to GDP by Primary Production component 2016 (Constant prices 2006 Base Year)

Sector	Vatu Million	% of GDP
Primary Production		
Crop Production	9,577	11.0%
Animal Production	913	1.0%
Forestry	940	1.1%
Fishing	544	0.6%
	11,974	18.8%

Source: Statistics Release: Gross Domestic Product 2016 (NSO 2017)

Vanuatu is an agriculture-based economy with copra, kava, coconut oil, cattle and cocoa dominating merchandise exports. In 2017, these items accounted for 71% of merchandise exports totalling 5.9 billion Vatu. In total, as shown in Table A7.2, commodities accounted for 82% of all merchandise exports in 2017.

Table A7.2 Relative proportion of Vanuatu merchandise exports 2017 (n= 5.9 billion Vatu)

Export Items	% of exports	Export Items	% of exports
Copra	31%	Cocoa	3%
Kava	21%	Live fish & shell	1%
Coconut oil	13%	Coconut meal	1%
Sawn timber	6%	Other commodities	1%
Beef	3%	Other products	18%

Source: Statistics Update: Merchandise Trade Statistics December 2017 Highlights (NSO 2018)

The MALFFB identifies there is strong potential for greater exports of traditional and high value commodities, including those that are organically grown, but production volumes need to be increased. The key challenges are to increase efficient and sustainable production and improve market access.

The MALFFB also recognises that the domestic market for agricultural products is quite limited. With 75% of the population residing in the rural areas and dependent on agriculture for their livelihood, productivity, particularly in the subsistence sector, is quite low.

The **NSDP 2016-2030** incorporates a number of objectives that are specific to addressing the challenges in the Agriculture Livestock, Forestry, Fisheries and Bio-Security sector:

ENV 1	Food and Nutrition Security - <i>A nation that ensures our food and nutrition security needs are adequately met for all people through increasing sustainable food production systems and improving household production</i>
ENV 1.1	Increase agricultural and fisheries food production using sustainable practices to ensure sufficient access to affordable and nutritious food
ENV 1.2	Promote aelan kaikai as a key part of a sustainable and nutritionally balanced diet
ENV 1.3	Reduce reliance on food imports through import substitution for food products that can be produced domestically
ENV 1.4	Improve access to appropriate technology, knowledge and skills in food production, preservation and storage
ENV 1.5	Enhance traditional agricultural practices, focusing on disaster risk reduction and climate change adaptation
ENV 4	Natural Resource Management - <i>A nation which utilises and sustainably manages our land, water and natural resources</i>
ENV 4.4	Promote the sustainable development of the fisheries sector that values the protection and conservation of marine and freshwater resources
ENV 4.6	Reduce deforestation and ensure rehabilitation and reforestation is commonplace
ENV 5	Ecosystems and Biodiversity - <i>A nation committed to ensuring the conservation and sustainable management of our biodiversity and ecosystems</i>
ENV 5.4	Protect our borders and environment through effective customs and biosecurity services
ECO 1	Stable and Equitable Growth - <i>A stable and prosperous economy, encouraging trade, investment and providing economic opportunities for all members of society throughout Vanuatu</i>
ECO 1.4	Increase trade and investment opportunities and reduce barriers, including through the use of Aid-for-Trade
ECO 1.5	Increase access to markets for Vanuatu exports
ECO 3	Strengthen Rural Communities - <i>A strong rural economy that creates opportunities, enables the development of rural communities and increasingly contributes to national prosperity</i>
ECO 3.1	Promote broad-based growth by strengthening linkages between tourism, infrastructure, agriculture and industry in rural areas and diversify the rural economy
ECO 3.4	Increase primary sector production, including through extension services and cooperatives
ECO 4	Create jobs and business opportunities - <i>An enabling business environment, creating opportunities and employment for entrepreneurs throughout Vanuatu</i>
ECO 4.2	Strengthen linkages between urban and rural business and promote trade between islands
ECO 4.3	Increase production and processing of niche commodities, and value addition to commodities in which Vanuatu enjoys a comparative advantage

The NSDP 2016-2030 objectives are entirely consistent with the MALFFB Corporate Plan 2014-2018³⁷ and the 2015 Provincial Skills Plans³⁸ which identify a number of priorities for each sector.

7.1.1 Agriculture and Horticulture

- ❖ Corporate Plan priorities:
 - Net growth of the private sector and its subsequent leadership in driving their respective industries
 - Biosecurity Vanuatu facilitates market access through assurance of pest and disease freedom and food safety
 - Domestic trade and consumption of locally produced foods must increase to off-set high volumes of food imports and increased consumption of nutritionally inferior foods
 - Commercialisation of kava
 - Ongoing research and development to ensure that agricultural practices are relevant to consumer needs and to external factors such as climate change
 - Improvement in the dissemination of research results and in the implementation of research.
- ❖ Provincial Skills Plans – priority skills needs:
 - Understanding and managing bio-security and bio-diversity
 - Increased knowledge to implement crop and vegetable propagation methods
 - New skills to maintain and improve soil fertility
 - Increased knowledge on the processing and preservation of food
 - Business development to strengthen marketing capabilities and identify new market opportunities
 - Knowledge to implement and manage supply and value chains
 - New programs to establish, install, maintain and manage food crop processing equipment
 - Equip farmers with new kava knowledge, including: drying information, kava varieties, post-harvest handling and processing

7.1.2 Livestock Sector

- ❖ Corporate Plan priorities:
 - Vanuatu needs to maintain its animal health status³⁹ and export certification systems in order to improve its market access options
 - to ultimately export Vanuatu beef to all the major import markets in the world
 - increasing the tonnage of beef produced through improved husbandry and pasture management.
 - Expanded pork production through improvements in farm management, genetics and access to market to offset high value pork imports of around 50 - 60 million vatu per quarter
 - Expanded commercial poultry production to offset high value poultry imports of around

³⁷ Corporate Plan 2014 -2108 (Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity, 2014)

³⁸ Provincial Skills Plans 2015 – 2018 for each province (Ministry of Education and Training, Vanuatu Skills Partnership 2015, Australian Department of Foreign Affairs and Trade 2015)

³⁹ Vanuatu has a favourable animal health status with no significant production limiting diseases for cattle and freedom from most OIE - listed diseases. The industry has proven itself to be successful in exporting beef to overseas markets with stringent import and quality standards such as Australia, Japan, New Zealand and other Pacific Island countries.

1,600 tonnes per annum compared to 143 tonnes of local production

- Expanded local production of chicken feed to offset high value of commercial chicken feed imports – in 2012, chicken feed imports 2,189 tonnes valued at 158 million vatu

❖ Provincial Skills Plans – priority skills needs:

- Business development to increase the processing and marketing of livestock
- Business and farm management
- Pasture and field management
- Animal husbandry and animal welfare
- Breeding and feed formulations for pigs and chickens
- Managing bio-diversity within livestock breeds
- Understanding and developing new market opportunities including bee keeping and dairy

7.1.3 Forestry Sector

❖ Corporate Plan priorities:

- Developing a sustainable forestry sector
- attract investors for developing larger commercial timber plantations
- organizing and empowering mobile sawmill operators to expand into value adding wood processing

❖ Provincial Skills Plans – priority skills needs:

- Business management
- Volumetric and numeracy skill development
- Nursery, planting, husbandry, grafting and propagation
- Establishment of woodlots
- Logging, felling and saw maintenance techniques
- Training for the establishment of large-scale plantations
- Value added processing

7.1.4 Fisheries and Aquaculture Sector

❖ Corporate Plan priorities:

- Improvements in catching, preservation; processing, transportation and marketing are needed
- Aquaculture development of freshwater fish species as an alternative measure to address poverty, food security, and diversity of eco-activities
- Improved conservation and management measures (CMM) particularly around urban areas where subsistence fishery is becoming increasingly cash-oriented, with varying portions of the catch being sold

❖ Provincial Skills Plans – priority skills needs:

- Improve fish catching techniques
- Establishing fish aggregating devices and platforms
- Improve fish handling techniques
- Business management of protected fishing areas
- Business management skills
- Business management and development skills for fishing associations
- Establish programs to expand, maintain and manage farming specifically:

- aquaculture for Tilapia
- fresh water prawn farming

7.2. Tourism and Hospitality Sector

Although there is broad agreement that the Tourism Sector is a major contributor to GDP, there is some degree of variance as to the actual extent. As noted in Table A7.3 estimates range from 20% to 30% in 2010. Irrespective of the actual figure, it is an essential element of Vanuatu's economy attracting foreign exchange and along its value chain offering significant levels of employment.

Table A7.3 Tourism Contribution to GDP Estimates

Reference	Year	% of GDP
Millennium Challenge Account (MCA) Tourism Survey ⁴⁰	2010	20.0%
World Travel & Tourism Council Economic Impact Report ⁴¹	2012	17.6%
Reserve Bank of Vanuatu ⁴²	2010	33.0%

It is noteworthy that the figures in Table A7.3 date to a period before Cyclone Pam which severely impacted tourism numbers in 2015. However, as illustrated in Chart A7.1 air arrival numbers in 2017 have been restored to their pre-TC Pam levels and Cruise Ship arrivals, although dipping in 2015 and 2017 continue to trend upwards.

On the basis that the respective contribution to GDP by agriculture, industry and the service sectors has remained relatively constant over the past 8 years, and visitor numbers in 2017 are in aggregate greater than the periods cited in Table A7.3, it is reasonable to assume the relative GDP contribution of the Tourism Sector remains at similar or higher levels in 2017 as was the case in 2010.

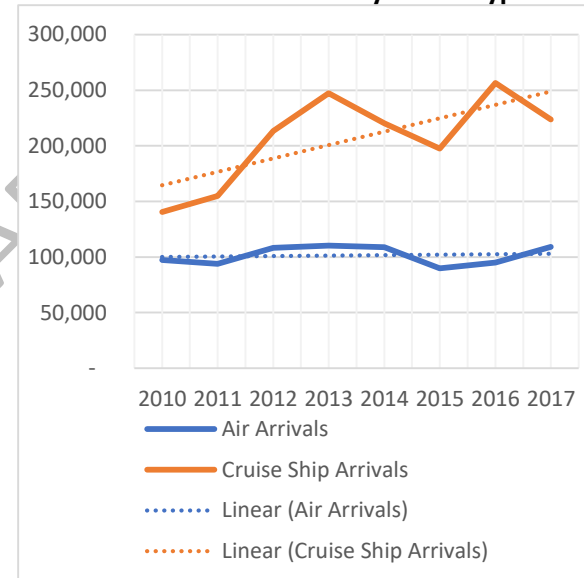
The Vanuatu Strategic Tourism Action Plan

(VSTAP) 2014-2018 identified 5 key priorities to positively influence Vanuatu tourism:

- Deliver tourism benefits to the outer islands
- Focus all key marketing efforts on core markets
- Invest in planning and building infrastructure that will benefit tourism
- Address the expectations of the tourism markets
- Work effectively and with clarity

The **NSDP 2016-2030** incorporates a number of objectives that relate to these priorities:

Chart A7.1 Tourist numbers by arrival type



Source: Statistics Update: International Arrival Statistics –December 2013 and June 2018 Highlights (NSO)

⁴⁰ MCA Tourism Survey 2010 – TRIP Consultants (cited in Vanuatu Strategic Tourism Action Plan 2014-2018)

⁴¹ World Travel and Tourism Council (2013). Travel & Tourism Economic Impact 2013 Vanuatu. WTTC London (cited in Vanuatu Strategic Tourism Action Plan 2014-2018)

⁴² Reserve Bank of Vanuatu, 2012 (cited in Vanuatu Trade Policy Framework 2012)

ENV 1	Food and Nutrition Security - <i>A nation that ensures our food and nutrition security needs are adequately met for all people through increasing sustainable food production systems and improving household production</i>
ENV 1.3	Reduce reliance on food imports through import substitution for food products that can be produced domestically
ENV 4	Natural Resource Management - <i>A nation which utilises and sustainably manages our land, water and natural resources</i>
ENV 4.7	Build capacity and support local communities to manage natural resources
ECO 3	Strengthen Rural Communities - <i>A strong rural economy that creates opportunities, enables the development of rural communities and increasingly contributes to national prosperity</i>
ECO 3.1	Promote broad-based growth by strengthening linkages between tourism, infrastructure, agriculture and industry in rural areas and diversify the rural economy
ECO 3.2	Deepen the integration of the tourism sector into the rural economy to spread opportunities to rural communities
ECO 4	Create jobs and business opportunities - <i>An enabling business environment, creating opportunities and employment for entrepreneurs throughout Vanuatu</i>
ECO 4.2	Strengthen linkages between urban and rural business and promote trade between islands
ECO 4.4	Improve and expand the range of sustainable tourism products and services throughout Vanuatu and strengthen links to local production

7.2.1 Vanuatu Strategic Tourism Action Plan 2014-2018 (VSTAP)

Quoting different sources, VSTAP estimates the size of the workforce that directly services the tourism sector to be somewhere between 4 and 10 thousand full time equivalent workers but notes that specific numbers are not known. These estimates do not take a value chain approach but are based only on the estimated numbers of employees in accommodation, food, beverages, transport and handicraft enterprises.

VSTAP notes that there are significant gaps in the workforce, especially finance managers, middle managers and supervisors, and trained chefs. It also notes that as the industry continues to grow there is increasing need for expanded language skills.

In-house, on the job training, is a feature of the accommodation, restaurant and activity elements of the tourism sector and there is a need for continuing capacity building of employees.

VSTAP foresees, under a moderate growth scenario, that tourism arrivals will exceed 500,000 by 2020 and predicts there will be definite labour shortages especially at technical and professional levels.

7.2.2 Vanuatu Agri-Tourism Linkages: A Baseline Study of Agri Demand from Port Vila's Hospitality Sector⁴³

Import substitution of commodities to service tourism related consumption of foodstuffs represents a major opportunity for the tourism sector in terms of reduced costs, the agriculture sector in terms of increased demand and income, and the education and training sector in terms of demand for new

⁴³ IFC, World Bank Group (2015)

skills. For example, in 2014, Port Vila (hotels and restaurants) spent 1.5 billion Vatu on procurement of fresh produce items - more than 800 million Vatu of this was spent on imported items.

Table A7.4 Port Vila Hotel and Restaurant Demand for Foodstuffs – Imports in relation to Total Demand

Commodities	Total Demand (million Vatu)	Imports (million Vatu)
Vegetables - potatoes, onions, carrots and capsicums	190	108
Fruits - tomatoes, oranges and cantaloupes	155	60
Meat & Dairy - pork, lamb, bacon, beef and chicken	1,100	632
Seafood - prawns and fish	234	109
Herbs	20	4

Source: IFC, World Bank Group (2015)

While each of these commodities can be grown in Vanuatu, reliability of supply and inferior quality of local produce are the two more significant reasons for the large import quantities. The major reasons for poor reliability and quality include:

- Lack of wholesale linkages between buyers and sellers
- Outdated infrastructure, equipment and techniques
- Inefficient inter-island shipping and poor produce handling
- Price competitiveness, particularly against South East Asian countries
- Inadequate access to high quality training
- Affordable capital

7.2.3 Provincial Skills Plans – priority skills needs:

- Core skill development including customer service, front office, food and beverage, and food safety
- Business management skills
- Improve levels of literacy and numeracy
- Supporting cultural traditions and handicrafts including, textiles, weaving, carving, pottery, cultural events and dance
- Training in new business and entrepreneurial opportunities, including tour guiding, intrepid trekking, spa treatments, hair braiding
- Delivery of recognised qualifications in the areas of:
 - first aid
 - water safety
- Accredited scuba diving qualifications
- Landscaping

7.3. Health Sector

The Ministry of Health (MoH) has a vision for:

An integrated and decentralized health system that promotes an effective, efficient and equitable health services for the good health and general wellbeing of all people in Vanuatu

The **NSDP 2016-2030** incorporates a specific goal and a number of objectives that relate to this vision:

SOC 3	Quality Health Care - A healthy population that enjoys a high quality of physical, mental, spiritual and social well-being
SOC 3.1	Ensure that the population of Vanuatu has equitable access to affordable, quality health care through the fair distribution of facilities that are suitably resourced and equipped
SOC 3.2	Reduce the incidence of communicable and non-communicable diseases
SOC 3.3	Promote healthy lifestyle choices and health seeking behaviour to improve population health and well-being
SOC 3.4	Build health sector management capacity and systems to ensure the effective and efficient delivery of quality services that are aligned with national directives

In realising its vision and its NSDP objectives, the MoH recognises that it needs to ensure there is an adequate supply of appropriately skilled and supported staff. It also recognises that there are currently skill shortages and an ageing workforce (See Annex 4 – specifically 4.2.1).

In 2018, the MoH released its **Workforce Development Plan 2018-2025** based on its new organisational structure (2017) and a number of assumptions including on-going budget constraints, and the need to address the critical shortage of qualified nurses by introducing strategies to extend retirement ages and find external sources.

Workforce shortages by the MoH are seen to be a major factor limiting the fair distribution of health services with many public health facilities understaffed, particularly in rural areas. In some cases, they are not staffed at all.

Leadership and management skills in the health sector are seen to be weak with many technically skilled professionals appointed to management positions but not having management qualifications or experience.

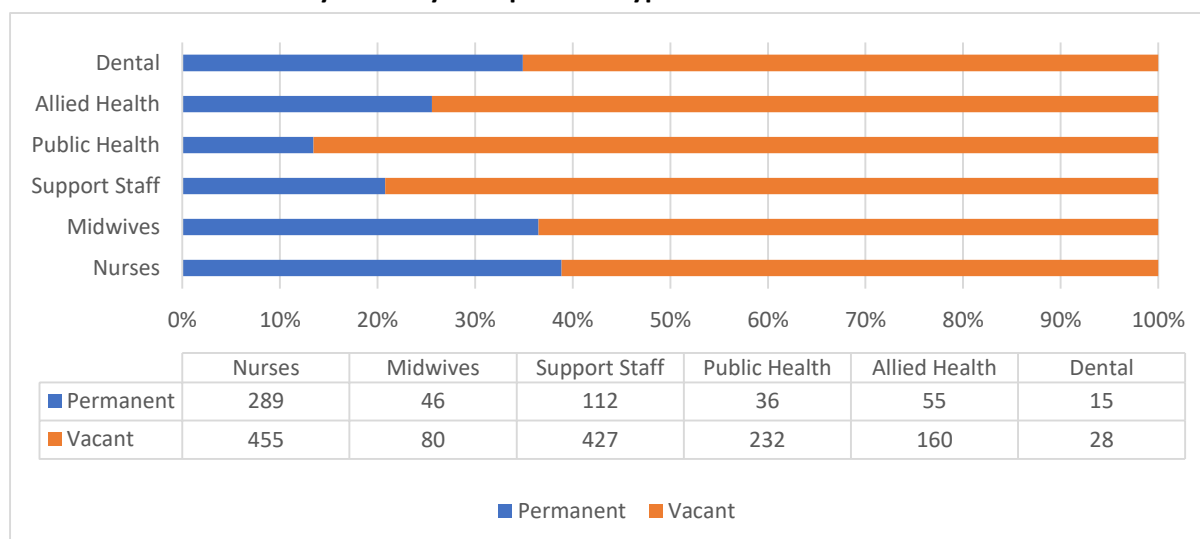
With respect to the shortage of nurses, the MoH Workforce Development Plan notes that the capacity to fill the 500+ vacancies is dependent on the available pool of applicants which is currently almost nil until further training occurs. The current graduate output from the VCNE in 2019 and 2020 is 32 and 40 respectively. The new Bachelor of Nursing course is expected to graduate up to 40 qualified nurses per year which may be barely sufficient to fill the natural attrition of nurses due to resignation and retirement. Public service data is showing that one third of current nurses and midwives are 50 years or older.

The World Health Organisation recommends 45 health workers (doctors, nurses, midwives) per 10,000 population are needed to reach the United Nations Sustainable Development Goal (UNSDG) by 2030 with a caveat that in the Vanuatu context it may not be either possible or required. The current level in Vanuatu is 16 per 10,000 and MoH has a target of 24 health workers per 10,000

population by 2020. This will require approximately 260 additional health workers over the next 2 years.

As previously reported in Annex 4, there are a substantial number of vacancies within the MoH. Not including contract staff⁴⁴, vacancy rates range from 61% to 87% as shown in Chart A7.2.

Chart A7.2 MoH Vacancy Rates by Occupational Type



Source: MoH Workforce Development Plan 2019-2015

Frequent references are made throughout the MoH Workforce Development Plan to the lack of consistent and reliable data which make predictions difficult but on the basis of what data is available the MoH has identified expected skill shortages over the next 5 – 10 years in the following areas:

- Doctors⁴⁵
- Nurses including Community Mental Health Nursing; Community Nursing and Child and Family Nursing; Theatre Nursing
- Clinical specialists including Internal Medicine; General Surgery; Paediatrics; Anaesthetics; Emergency; Accident and emergency; Mental Health (Psychiatry), Biomedical
- Finance, Human Resources, IT, Environmental Services, Data Management, Biomedical Engineering and Trades positions

MoH has commenced recruitment to fill 228 vacant positions in 2018/19 but due to the limited number of HR staff only 10% has been completed by late 2018. The extent to which limited recruitment resources are impeding approved recruitment to fill skill shortages needs to be addressed as a priority within the Ministry.

⁴⁴ In addition to permanent staff there are 236 contract or project staff spread across all occupations – of the estimated 440 health workers (doctors, nurse, midwives) there are 101 on contract

⁴⁵ Specific requirements for doctors are being identified in a Medical Workforce Plan which is currently under development

7.4. Education Sector

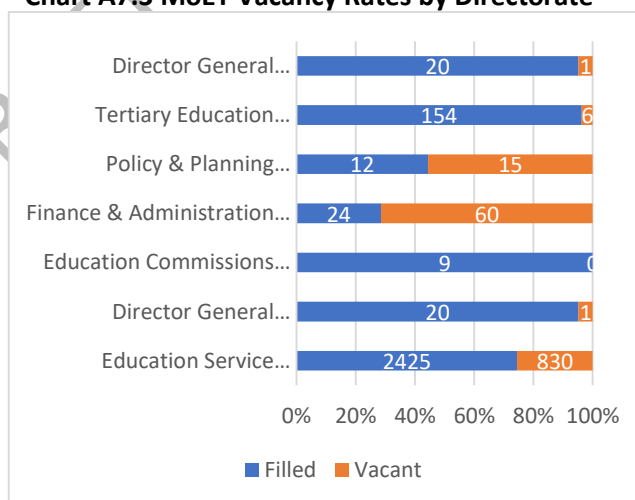
The **NSDP 2016-2030** incorporates a specific goal related to education and training in Vanuatu which includes key principles related to equity, quality and access to early childhood, school, post-school and lifelong learning opportunities.

SOC 2	Quality Education - An inclusive, equitable and quality education system with life-long learning for all
SOC 2.1	Ensure every child, regardless of gender, location, educational needs or circumstances has access to the education system
SOC 2.2	Build trust in the education system through improved performance management systems, teacher training, and the reliable delivery of quality services
SOC 2.3	Formalise early childhood education and life-long learning opportunities within the education system
SOC 2.4	Increase higher education opportunities including technical and vocational training and skills

Annex 8 examines the school and post-school education and training system in relation to its current capacity to respond to skill development priorities identified in the NHRDP. Critical to that discussion is the HRD needs of the Ministry of Education and Training (MoET) itself.

As noted earlier, the MoET is the largest Ministry in terms of both overall staff numbers and the number of staff vacancies. While the proportion of vacancies to the total may not be as great as in other Ministries, the high number of vacancies significantly impacts its ability to meet NSDP objectives. Within MoET itself, the directorates with the highest proportions of vacancies are Finance and Administration, and Policy and Planning. The highest number though being in the Education Service Directorate comprising primary and secondary teachers as well as education managers and specialist support staff.

Chart A7.3 MoET Vacancy Rates by Directorate



Source: PSC Data 2018

Table A7.5 MoET Vacancies by ISCO 1-digit occupational type

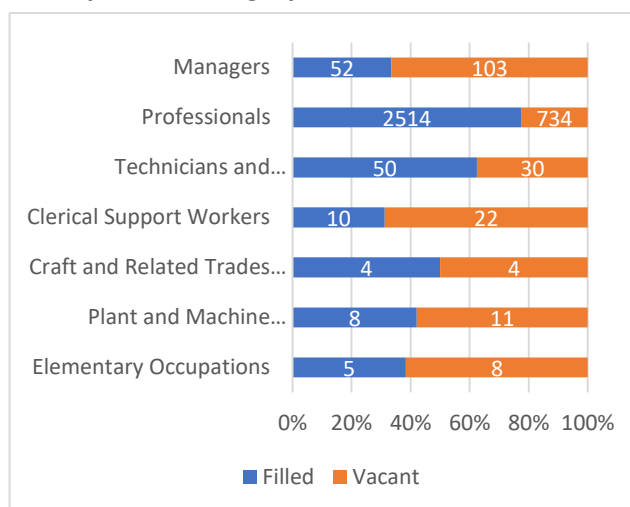
ISCO - 1 digit	Filled	Vacant
Managers	52	103
Professionals	2,514	734
Technicians and Associate Professionals	50	30
Clerical Support Workers	10	22
Craft and Related Trades Workers	4	4
Plant and Machine Operators and Assemblers	8	11
Elementary Occupations	5	8

At an occupational level, as indicated in Table A7.5 (above), 91% of all vacancies in MoET are either managers or professionals. The relative proportion of vacancies to filled positions is provided in Chart A7.4. The high proportion of vacant manager positions relates mainly to head of school positions.

A significant lack of clerical support workers within the Ministry itself may negatively impact the efficiency of some departments.

The large numbers of professional vacancies are shown in Table A7.5 by occupational grouping. It also shows the proportion of vacancies in relation to the total number of MoET positions within each occupational group. The high (33%) vacancy rate for secondary education teachers should be a particular concern as should the high proportion (70%) of other teaching professionals. This latter group includes a high number of Zone and other curriculum officers.

Chart A7.4 MoET vacancy rates by ISCO -1 occupational category



Source: PSC Data 2018

Table A7.5 MoET Professional vacancies by ISCO 3-digit occupational type

ISCO -3	Occupational Group	Filled	Vacant	Relative % to total
234	Primary School and Early Childhood Teachers	2090	452	18%
233	Secondary Education Teachers	369	183	33%
235	Other Teaching Professionals	37	88	70%
216	Architects, Planners, Surveyors and Designers	5	4	44%
242	Administration Professionals	3	3	50%
212	Mathematicians, Actuaries and Statisticians	0	2	100%
241	Finance Professionals	2	1	33%
252	Database and Network Professionals	1	1	50%

Source: PSC Data 2018

MoET released an HRD Plan in 2015 which outlined the Ministry's HRD priorities:

- **Leadership, Management Development and Organizational Skills:** Develop capabilities of selected senior personnel in governance, quality management or functional management for effective work outputs.
- **School Leader development:** Develop school leaders to implement School Improvement Plans, apply standards for schools and teachers to comply with policies, standards and operational directives of the Ministry.
- **Teacher professional development for registration and progression:** Facilitate the attainment of minimum qualification standards to comply with the Teaching Service Commission registration requirements.
- **Competencies for teaching practices:** Support the adoption of Teacher Standards for Vanuatu in all schools and performance management.

- **Policy Development and Planning:** Develop capabilities for strategic planning and development of policies.
- **Project management:** Develop skills of selected staff to initiate and administer projects effectively and efficiently.
- **Supervision and Human Resource Management:** Develop skills for supervision of staff and compliance with human resource management standards and practices and training for major change projects.
- **Office administration and executive support:** Improve executive administration and office management.
- **Special Needs:** Self-help development, work – career planning tools.

DRAFT

ANNEX 8 - SCHOOL AND POST SCHOOL EDUCATION AND TRAINING

8.1. School System

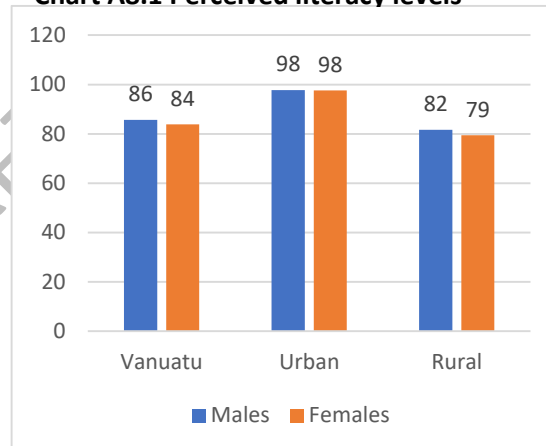
The 2015, Vanuatu education budget as a proportion of GDP was 5.55%.⁴⁶ Compared to other countries in the region (Samoa 4.08% 2016, Fiji 3.88% 2013) this is relatively high. However, a population bulge of 64%⁴⁷ under the age of 24 places considerable pressure on available resources.

Since the World Bank⁴⁸ commented in 2009 that it thought Vanuatu's progress towards achieving universal primary education was disappointing there has been continuing reform and systemic improvements, but gains remain fragile⁴⁹. DFAT (2018) identifies the primary constraints as the large number of widely dispersed schools, limited supply of qualified teachers and principals, low net enrolment rates (NER), high numbers of repeaters, high numbers of out of school children (including children with disabilities) and a lack of community engagement with education. Linguistic diversity was seen as a factor that further compounds the challenges outlined above.

The 2009 Census noted perceived literacy levels, based on a person's self-reporting of their ability to read and write a simple sentence, was high.

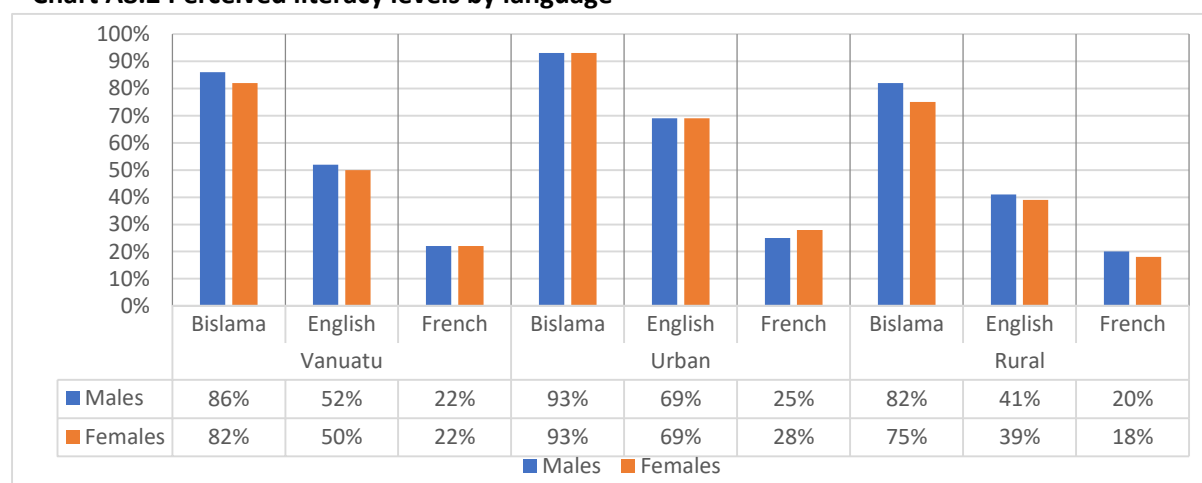
However, a 2012 Pacific Living Conditions Hybrid Survey⁵⁰ identified that the 2009 Census results correlated with perceptions of Bislama literacy as the universally understood language in Vanuatu. It found much lower perceptions of literacy in the two official languages taught in schools (English and French). As Chart A8.2 shows on average literacy rates overall for English and French were as low as 50% and 22% respectively.

Chart A8.1 Perceived literacy levels



Source: Census (VNSO 2009)

Chart A8.2 Perceived literacy levels by language



Source: Secretariat of the Pacific Community (SPC), VNSO 2013

⁴⁶ https://www.theglobaleconomy.com/Vanuatu/Education_spending/ cited in (DFAT,2018)

⁴⁷ Compared to Samoa 63% <29 (2016 Census) and Fiji 46% <24 (2014 Population and Labour Force Estimates)

⁴⁸ Pacific Regional Strategy FY2006-2009 (World Bank, 2005) cited in (DFAT,2018)

⁴⁹ Vanuatu Education Support Program (VESP) Phase II - Investment Design Document (DFAT, 2018)

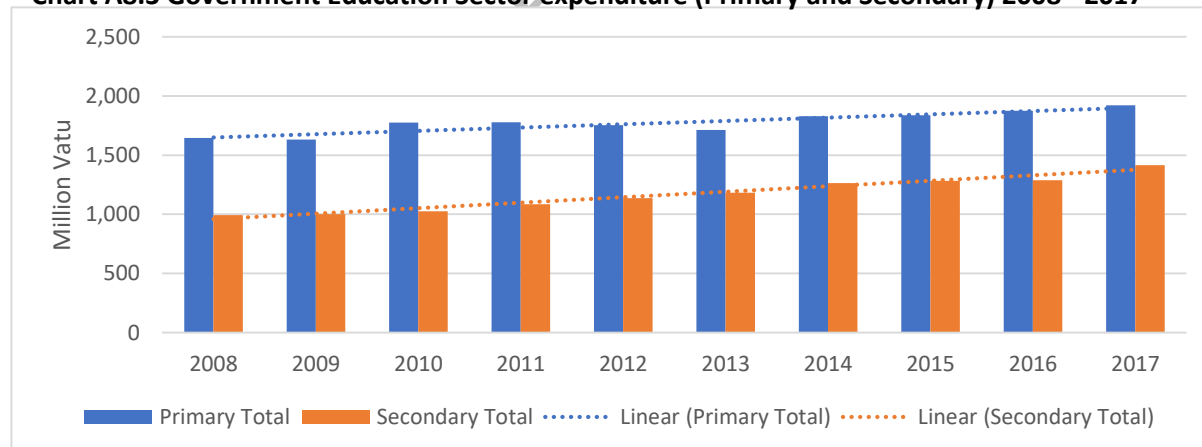
⁵⁰ 2012 Pacific Living Conditions Survey (Hybrid Survey) Secretariat of the Pacific Community, VNSO 2013

The Asia South Pacific Association for Basic and Adult Education (ASBAE)⁵¹ undertook a literacy assessment in Shefa province in 2011 and concluded that there is a need to substantially improve the quality of education at primary and secondary school to ensure that more students become literate. The study reported that of those attending school only 35.4% of primary school students and 52.6% of secondary school students were found to be literate. The findings relate only to rural parts of Shefa province and it is difficult to draw national conclusions but, given the centrality and proximity of Shefa province to national services, it is reasonable to assume that similar or possibly worse results might apply in more remote provinces.

A Vanuatu Standardised Test of Achievement (VANSTA) conducted in 2017, applying a different methodology to the ASBAE assessment, found more promising results and showed 64% of French speaking students and 65% of English speaking students met the Year 4 minimum literacy standard. Because the methodologies of the two studies are different, a direct comparison of the results cannot be made but the VANSTA result does give an indication of improvements. Although, the results also mean that 1 in 3 students are not meeting minimum literacy standards.

Cox et al (2007)⁵² noted a lack of Government revenue to adequately fund education resulting in schools, in many cases, lacking basic resources. The School Grant Scheme was introduced in 2010 with the intention to fund primary schools to a level where they did not have to charge school fees but it has not reduced concerns related to stagnant enrolment, access inequalities, right age entry, retention and completion (DFAT 2018). Chart A8.3 shows in actual Vatu terms expenditure on education trending upwards over the past decade. Whether the rate of increase has kept up with increasing costs and wages is not clear.

Chart A8.3 Government Education Sector expenditure (Primary and Secondary) 2008 - 2017



Source: MoET 2018

With respect to key education indicators, Net Enrolment Rates⁵³ (NER) for primary schools overall are 79.1 for both males and females. For secondary schools it is 42.1 and 46.1 for males and females respectively. Low NER levels point to a low proportion of right age students in classes mostly due to some students starting school later than their peers or through significant numbers of students

⁵¹ Education Experience Survey and Literacy Assessment – Shefa Province (Asia South Pacific Association for Basic and Adult Education 2011)

⁵² Cox M; Alatoa H; Kenni L; Naupa A, Rawlings Dr G; Soni N; Vatu C; The Unfinished State - Drivers of Change in Vanuatu (AusAID 2007)

⁵³ Students enrolled at specified education levels as a percentage of the total number of same-age individuals in the population

repeating. Chart A8.1 shows key education indicators compiled by the World Bank in comparison to averages from other Pacific countries⁵⁴. Other than the NER, all other Vanuatu indicators are significantly below the average levels for other countries. The high Gross Enrolment Rate (GER) is a product of late age entry and a high level of repeaters. It is important to note that more than a quarter of primary school enrollees do not complete primary school. In secondary schools, almost half do not complete lower secondary level.

Table A8.1 Comparative Education indicators

	Comparative Year ⁵⁵	Vanuatu	Pacific Small Island States
Primary School Level			
Net Enrolment Rate	2015	86.7	87.6
Gross Enrolment Rate ⁵⁶	2015	119.7	109.0
Repeaters	2013	15.6	5.0
Persistence to last Primary School Grade	2008	71.5	81.5
Trained Teachers	2015	27.9	71.5
Secondary School Level			
Lower Secondary Completion Rate	2013	52.9	83.2
Trained Teachers lower secondary	2015	21.5	74.1
Trained Teachers upper secondary	2015	20.5	79.9

Source: World Bank (<https://data.worldbank.org/>)

At face value, the percentage of trained teachers reported by the World Bank at both primary and secondary levels who have received the minimum organized teacher training (pre-service or in-service) qualification required for teaching at their respective primary and secondary education levels is a considerable concern. However, the Ministry of Education and Training reports higher rates of certification as shown in Table A8.2.

Table A8.2 Percentage of certified and qualified teachers by school level, 2013–2015

School Level	Teachers certified, qualified	2013	2014	2015
Primary (1–6)	% Certified	60.0%	61.0%	63.0%
	% Qualified	40.0%	39.0%	37.0%
Secondary (7+)	% Certified	64.6%	70.0%	69.4%
	% Qualified	35.4%	30.0%	30.6%

Source: Statistical Digest (MoET 2015)

MoET defines certified and qualified teachers as follows:

- **Certified:** A certified teacher has undertaken specialized post-secondary teacher training and met the course requirements, with or without other post-secondary qualifications and is qualified to teach.
- **Qualified:** A qualified teacher has undertaken some training and/or post-secondary studies, but they have not undertaken any specialized teacher training, so although they have a

⁵⁴ Includes Fiji, Kiribati, Marshall Islands, Federated States of Micronesia, Nauru, Palau, Samoa, Solomon Islands, Tonga and Tuvalu

⁵⁵ The most recent year in which comparative statistics are available for Vanuatu and the Pacific Small Island States as a whole

⁵⁶ Number of students enrolled in a given level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education

qualification, they have not been trained to teach.

Even at the higher rates shown in Table 5.7, there remains a level of concern that around 1 in 3 teachers in primary and secondary schools do not have any form of teacher training.

School principals are often appointed without a merit-based selection process and many lack financial or leadership experience.

The quality of teaching and learning is further hampered by a lack of MoET capital and recurrent budgets for school infrastructure. Overcrowding and safety concerns for children result due to both a lack of classrooms and many classrooms requiring significant repairs and maintenance.

8.2. Post School Education and Training (PSET) System

8.2.1 Systemic Reforms

Over the past five years, there have been continuing systemic reforms of the PSET sector. Over this period the Vanuatu National Training Council (VNTC) Act was repealed and replaced by the Vanuatu Qualifications Authority Act (2014)⁵⁷ which included two major changes:

1. The VNTC Council, comprised mostly of training provider representatives, was replaced by the VQA Board comprised mostly of productive sector departmental heads and senior private sector representatives whose primary function is to be accountable for the strategic direction for a demand led PSET system that more effectively and efficiently national development objectives.
2. The VQA quality assurance responsibilities was expanded to all Post-School qualifications including higher education and TVET - previously its focus was solely on TVET

In 2015 another fundamental change occurred when Ministerial responsibility for the VQA was transferred from the Ministry of Youth Development, Sports and Training (MYDST) to the Ministry of Education (MoE). The education ministry was renamed to become the Ministry of Education and Training (MoET) and restructured to include for the first time, a Tertiary Education Directorate (TED) which took responsibility for Scholarships, Teacher Education, Higher Education, and TVET.

The MoET restructure included six⁵⁸ Provincial Skills Centres to facilitate decentralised and flexible delivery of accredited qualifications and business development support services. The four operational Provincial Skill Centres in Malampa, Sanma, Torba and Tafea, have played a central role in the considerable expansion of provincial tourism. In addition, the formal partnership between the Provincial Skills Centres and the Department of Tourism and the Vanuatu Tourism Office has established a model for additional partnerships with other productive sector agencies such as the Departments of Industry and the Department of Agriculture. The purpose of these partnerships is to facilitate better alignment between PSET investments and national development priorities particularly strengthening rural communities.

⁵⁷ Vanuatu Parliament (2014), *Vanuatu Qualifications Authority Act No.1 of 2014*. http://www.paclii.org/cgi-bin/sinodisp/vu/legis/num_act/vqaa2014384/vqaa2014384.html?stem=&synonyms=&query=qualification%20authority

⁵⁸ While formalised in the MoET structure, only four Provincial Skills Centres have been established to date (2018) – the two provinces without a Centre are Penama and Shefa

Following these reforms, extensive consultation in 2016 led to the formulation National PSET Policy (2016-2020)⁵⁹ which aligned to a World Bank developed approach to effective workforce development⁶⁰. The primary objective is to promote an inclusive, quality assured and demand led PSET system that is better able to respond to the human resource development requirements embodied in the NSDP 2016-2030 and to private sector business plans and skill requirements.

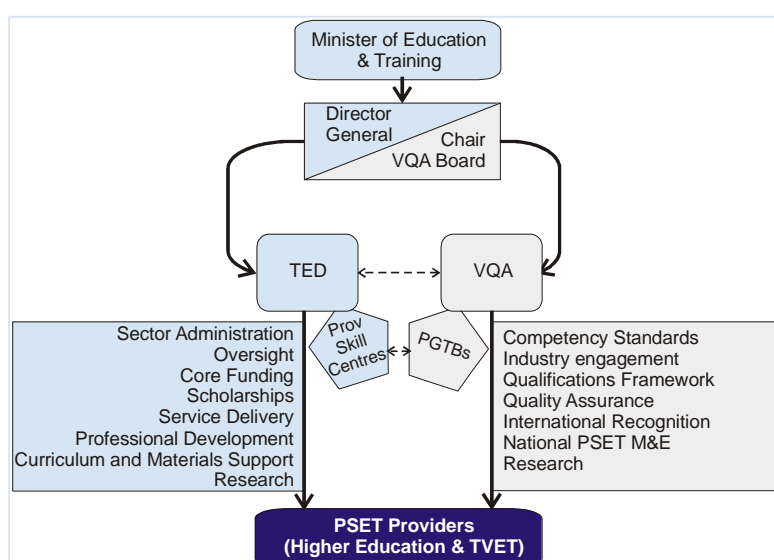
The Vanuatu Qualifications Authority (VQA) Act (2014) establishes the VQA Board as the principal agency responsible and accountable for PSET system performance. Under the Act the VQA Board is accountable to the Minister of Education and Training for:

- Policy advice to the Government on PSET strategies and priorities
- Monitoring and reporting to the Government and the PSET sector on the activities, resourcing, and overall performance of the sector in relation to national strategic goals for economic, social and cultural development
- Advice to the Government and the PSET sector on findings and implications arising from research, monitoring and evaluation conducted by the Authority or other agencies, bodies or persons
- Regulating the issuing of qualifications and the maintenance of quality standards by all registered PSET providers
- Coordinating and strengthening the PSET sector, so as to better focus the sector on national development goals and to promote more flexible pathways to achieve nationally and internationally recognised qualifications

The structure of the VQA Board as prescribed in the VQA Act is recognition of the need for the PSET system to be no longer supply driven but more responsive to skill demand. For this reason, the VQA Board is comprised principally of productive sector department heads and senior representatives from the private sector. Importantly though, the VQA Board is linked directly to the PSET system through the Director General of Education and Training who is also the permanent Chair of the VQA Board.

Both the MoET Director of Tertiary Education (TED) and the Chief Executive Officer (CEO) of the VQA contribute to strategy and policy development and have day to day responsibilities for the management and administration of their respective organisational mandates.

Chart A8.4 PSET System Structure



Source: National PSET Policy 2016-2020

⁵⁹ Post School Education and Training (PSET) Policy 2016–2020, Vanuatu Ministry of Education and Training (Government of Vanuatu 2016)

⁶⁰ What Matters for Workforce Development: A Framework and Tool for Analysis (World Bank, 2013)

The achievement of PSET Policy objectives is dependent on high levels of collaborative and mutually supportive activity between primary stakeholders including the VQA Board, the Tertiary Education Directorate, the VQA Executive and PSET Providers.

Following the PSET Policy's release, a National PSET Policy Implementation Plan was developed in 2016 to promote a more coordinated approach to PSET stakeholder strategic and corporate planning, and policy implementation.

The initiative in 2018, by the Prime Minister's Office (PMO) through the Department of Strategic Policy Planning and Aid Coordination (DSPPAC) to develop this National HRD Plan aligned to the NSDP 2016-2030 is another significant element of the reforms designed to improve the relevance, efficiency, quality and equity of investments in school and post school education and training nationally.

If the PSET system is to become more strategic in approach to the delivery of education and training outcomes aligned to public and private sector development goals it is essential that the VQA Board play a strong leadership role with sufficient authority to direct PSET funding on the basis of skill demand, rather than perpetuating the existing historic based funding model that provides no incentive for PSET Provider institutional reform.

The PSET system architecture is now in place, but there remains a lag in the capacity of PSET providers to respond to the challenges embodied in PSET policy for a flexible and demand driven system that meets national and international qualification standards and national development objectives.

8.2.2 PSET Funding

While considerable progress towards a better coordinated and demand focused PSET system has been achieved there remains a number of critical constraints that continue to impede the capacity of the PSET system to better contribute to national development objectives.

Not only is the quantum of funding important. It is also essential to consider funding processes and to what extent these processes are geared to better returns on PSET investment.

Over recent years there is evidence of increased funding allocations to the PSET sector as a whole. The 2018 Budget Papers⁶¹ show there has been an increase between actual PSET expenditure in 2016 and budgeted expenditure for 2018 of just over VUV400million (37%).

As shown in Table A8.3 below, an increase in the Scholarships budget of 38% between 2016 and 2108 was smaller in percentage terms than other MoET allocations, but it still represented close to half of the overall PSET budget increase in monetary terms. Substantial increases have occurred in MoET Tertiary Education Division as well as the TVET and Teacher Education Units, both with almost seven times budget increase. Another substantial budget gain has occurred in the VQA (100%).

Over the same period, the overall percentage gain for PSET providers was the lowest at 28%. This number is distorted by the tenfold budget increase to the Bilingual Institute of Education. While both the VCNE and the VPC have also had substantial increases of 74% and 100% respectively, other PSET providers have had minimal or no increases (VMC 5%, VAC 0%). VIT 's budget has declined 12%.

⁶¹ Budget 2018, Volume 1 Fiscal Strategy Report (Government of Vanuatu, 2018)

Table A8.3 PSET Investment 2016, 2018

	2016 (actual) VUV	2018 (budget) VUV	% change
Scholarships	586,440,092	809,515,006	38%
MoET			
Tertiary Education Directorate	1,523,489	5,967,165	292%
Scholarships Coordination Unit	18,795,211	18,700,199	-1%
TVET	2,993,275	23,083,093	671%
Teacher Education	600,000	4,619,693	670%
	23,911,975	52,370,150	119%
Vanuatu Qualifications Authority	25,000,000	50,000,000	100%
PSET Providers (Public)			
Agriculture College (VAC)	82,800,392	82,800,392	0%
Bilingual Institute of Higher Education	3,259,026	38,000,000	1,066%
College of Nursing Education (VCNE)	102,299,584	175,525,517	72%
Institute of Technology (VIT)	124,706,986	109,463,935	-12%
Institute of Teacher Education (VITE)	89,598,374	105,518,268	18%
Maritime College (VMC)	41,255,243	43,355,234	5%
Police College (VPC)	18,568,734	37,107,980	100%
Total PSET Providers	462,488,339	591,771,326	28%
TOTAL PSET	1,097,840,406	1,503,656,482	37%

Source: Budget 2018, Volume 1 Fiscal Strategy Report (Government of Vanuatu, 2018)

The increase in the Higher Education Division is reflective of the Government's strong interest in rationalising PSET delivery under a single Ministry – MoET, and the possibility of a national university emerging in the future. Discussions are on-going across the various line agencies – MoET, MALFFB, MoH and MIA about the potential for PSET institutional amalgamations to create an **Institute of Higher Education** perhaps as a first step towards a national university. Legislation called the *Post School Education and Training Act* is currently being drafted as a first step to formally establish all of the public providers including the new Bilingual Higher Education Institute, as corporate bodies with perpetual succession, a common seal and the capability to sue or be sued. This is a crucial development towards improving the PSET system and its capacity to better respond to skill shortages and gaps nationally. An **Institute of Higher Education** will reduce costs through efficiencies of a single administration and improved economies of scale. It would improve coordination and more flexible delivery of programs across multiple campuses. The degree of institutional autonomy will allow better responses to incentive mechanisms that promote the Institute's overall performance.

Greater investment in the TVET division follows increasing Government commitment to Provincial Skills Centres in partnership with the Australian Government. These Centres facilitate decentralised delivery of accredited training and business development support that is specific to provincial skill needs and by doing so have contributed to substantial economic development, especially in the tourism sector.⁶²

⁶² TVET for Tourism Final Report and Evaluation Phase 3- 2013 to 2016 (Vanuatu Skills Partnership, 2016)

The Government funds a number of staff positions in these centres already and is expected to increase this level of commitment over successive budgets in the coming years.

While the investment increases cited above demonstrate an increasing level of commitment to the PSET sector overall, public PSET Providers have not had comparable increases in their investment. In fact, their share of overall investment has declined.

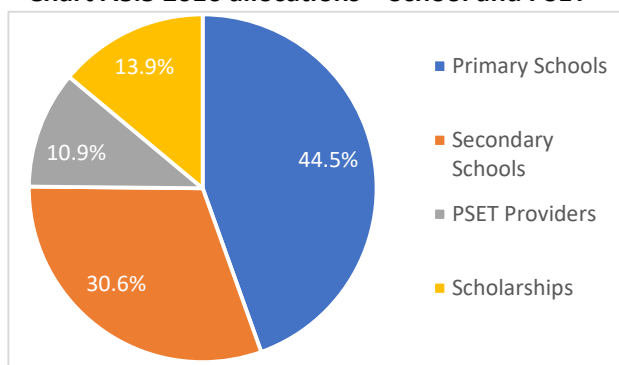
The respective allocation of funds across the education and training portfolio in 2016, exclusive of the administrative units, is provided in Chart A8.5.

Including scholarships, the PSET sector accounts for 25% of overall education and training expenditure of VUV4.2 billion. The PSET Provider share of the overall budget was just on 11%. Scholarships accounted for almost 14%

Over the 2016/2018 period the, combined scholarship and PSET provider budgets increased VUV 317 million. A significant proportion of this increase (70%) was allocated to the scholarship program. Of the net increase to the PSET Providers of VUV95 million, the Vanuatu College of Nurse Education (VCNE) was the major beneficiary. The Police College and the Vanuatu Institute of Teacher Education (VITE) also had reasonable budget gains in monetary terms.

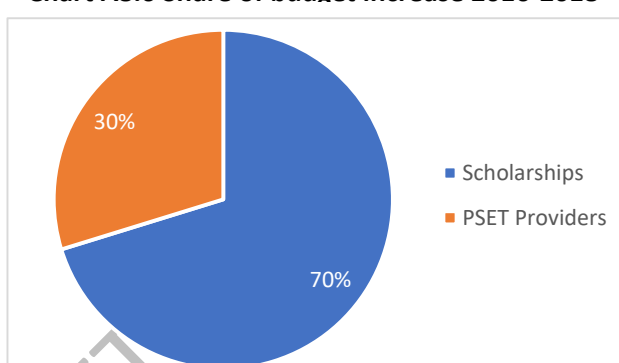
The proportionate change in budget for PSET Providers between 2016 and 2018 is shown in Chart A8.7. The VPC budget doubled from a low base and the substantial increase in the VCNE budget was a product of an extra grant. Other PSET providers have not fared as well with the VAC budget remaining the same and the VIT budget actually decreasing. If the PSET system is to meet its obligations in relation to the NSDP, existing allocations will need to be examined and re-prioritised in accordance with NSDP objectives and identified skill demand in the private and public sectors. Not only will allocations need to be examined but it will also be necessary to review the budget process to enable more performance-based funding allocations to provide the incentives for PSET providers to be more flexible and to better respond to national priorities.

Chart A8.5 2016 allocations – School and PSET



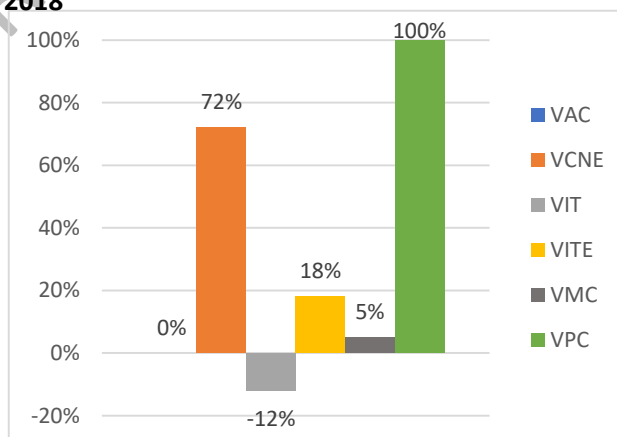
Source: Source: 2018 Fiscal Strategy Report 2018

Chart A8.6 Share of budget increase 2016-2018



Source: Source: 2018 Fiscal Strategy Report 2018

Chart A8.7 PSET provider budget changes 2016-2018



Source: Source: 2018 Fiscal Strategy Report 2018

8.2.3 Industry Partnership

Of the 202 *Industry Survey (2018)* respondents, 88 provided an estimate of the amount they spend per annum on staff training. As shown in Table A8.4, the 88 enterprises in total invested over 130 million Vatu in training. This is equivalent to 25% of the overall PSET Provider budget of 554 million in 2018. It is noteworthy that this level of private sector expenditure on skills training is confined to just 88 enterprises representing 44% of the survey enterprises comprised of 2,601 employees or 7% of overall private sector employment. It is assumed therefore, that a substantial amount more is spent and potentially available from the private sector to purchase training from local PSET providers who have the capacity and approach to meet industry needs. In other words, there is potentially a considerable revenue stream available to supplement existing budgets if PSET providers had the wherewithal to take advantage.

Table A8.4 Industry investment in skills training by sector

Sector	Amount spent on training 2017 (VUV)	Number of employees	Average amount per employee (VUV)	Number enterprises paid for training	Average amount per enterprise (VUV)
Agriculture	600,000	12	50,000	1	600,000
Construction	6,550,000	441	14,853	7	935,714
Energy	12,750,000	116	109,914	3	4,250,000
Finance	12,900,000	117	110,256	3	4,300,000
Information Systems	50,000	12	4,167	1	50,000
Manufacturing	15,650,000	32	489,063	8	1,956,250
Media	210,000	8	26,250	2	105,000
Retail/wholesale	16,554,000	188	65,173	10	1,655,400
Services	1,835,480	254	49,608	5	367,096
Telecommunications	34,650,000	37	129,775	2	17,325,000
Tourism	8,080,200	267	8,237	23	351,313
Transport	8,530,000	981	62,721	10	853,000
Other	18,931,000	136	100,697	13	1,456,231
	137,290,680	2,601	52,784	88	1,560,121

Source: *Industry Survey (2018)*

Research in 2015 funded by the Australian Department of Foreign Affairs and Trade (DFAT) estimated that 47.5% of firms in Vanuatu have a history of funding employee training to an average of USD224 per annum (VUV24,000)⁶³. This average is lower than the 52,874 per employee average reported by respondents to the industry survey but even on the basis of the lower number the total amount invested by the private sector could be as high as VUV430 million. If the industry survey per employee average is representative of the broader population the number could be as high as VUV 900 million. Whatever the actual number is, it is clear that industry makes a substantial investment in skills training and that this investment is potentially available to local public and private PSET providers who can respond to industry standards for skills training.

⁶³ Private Financing for TVET in the Pacific - Overview Paper, Palmer Robert (DFAT 2015)

The industry survey also asked respondents to indicate their preferred mode of training. Of those that responded to this question, a clear majority of firms identified on-the-job training (OJT), either by qualified instructors or their own staff as their first preference.

Table A8.5: Industry preferred training modality

Mode of Training	# Responses	% Ranked 1
Classroom training away from the workplace by qualified instructors	55	64%
Training delivered on the job by qualified instructors	89	78%
Training delivered on the job by your own staff	82	67%
A mixture of the above	70	83%

Source: Industry Survey (2018)

Industry's recognition of skills gaps within their existing workforce, in combination with their preparedness to purchase training services and their preference for OJT, presents an excellent opportunity for PSET Providers to increase their revenue base by delivering accredited short courses directly in response to industry demand. This will of course require PSET providers with the capacity and interest to be more responsive to industry needs and to be more flexible in their approach to modes of delivery.

Further opportunity for PSET providers to support the upskilling of the existing workforce is evidenced by Table A8.6 which provides survey responses to a question related to the highest level of qualification achieved by existing workers by occupational category.

As indicated, just on one in four managers' highest educational attainment is secondary level qualifications. A similar proportion of workers designated as professionals have only secondary level qualifications. At the technician and associate professionals level the results are closer to what might be expected with 65% having achieved a vocational qualification or higher. Of particular note are the qualifications of those designated as trade or craft workers where 90% of employees have only a secondary level qualification. This would appear to be an immediate opportunity for local PSET Providers whose current capacity is more comparable to this level of qualification delivery rather than perhaps management, professional and technician level qualifications.

Table A8.6: Highest qualification levels by occupational category

Occupational Category	Upper Secondary	Year 12+	Vocational	Higher Education	Total number of responses
Managers	28	33	69	133	263
Professionals	28	35	79	92	234
Technicians & associate professionals	16	61	112	30	219
Clerical support workers	64	141	132	11	348
Service & sales workers	10	1	13	2	26
Skilled agricultural, forestry & fishery workers	10	1	13	2	26
Trades or craft workers	100	90	21	1	212
Plant and machine operators, drivers	157	29	48	2	236
Elementary occupations	275	126	10	2	413
Total number of responses	688	517	497	275	1,977

Source: Industry Survey (2018)

8.2.4 Scholarships

The high value of national scholarships in monetary terms, and in proportional terms, to overall PSET budget allocations, clearly requires analysis as to whether this investment is delivering value for money. Consultations undertaken during the development of National PSET Policy and during the development of the NHRDP generated concerns that scholarship awards, up until recently, have been supply driven based on individual student preferences and available university places. To a large extent also, apart from the scholarships to the USP Emalus Campus, scholarship funding has flowed out of the country to foreign universities and associated providers of accommodation and sustenance, draining foreign exchange reserves as a result.

There has been no substantive research undertaken to evaluate the impact of the Vanuatu Government funded scholarship program to date. It is therefore difficult to conclude the extent to which this investment has generated economic and/or social impact. It follows that any comments on the relative efficiency of the scholarship program cannot be made.

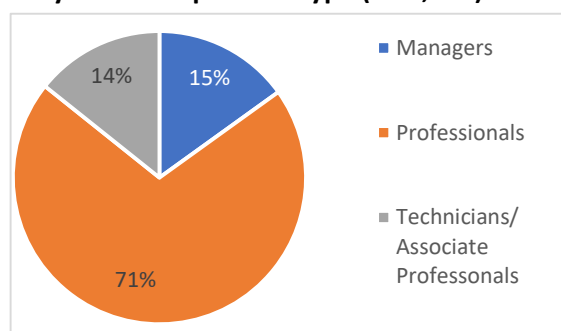
However, anecdotal evidence from a number of Ministers and Departmental Heads consulted as part of the National HRD Plan development process, raised questions about its effectiveness and efficiency. Predominantly, concerns related to perceived oversupply of degree and post-graduate degree holders who are unable to find employment in their chosen professions upon completion of their respective scholarships.

Similarly, in-line with the skill shortage/skill gap analysis cited in earlier parts of this document, comment was made about the traditional focus of the scholarship program on degree and post-graduate qualifications, which has not met the need for more middle level technical skills in both the public and private sectors. The occupational breakdown of the current scholarship program shown in Chart A8.8 demonstrates this point with only 14% of current scholarship awards related to technician and associate professional level occupations.

Chart A8.8 also shows the clear focus on the professions with almost three in four scholarship awards related to a range of professional occupations. Apart from questions around proportionality, this in itself is not a negative in that there are clearly skill shortages at this level. However, as Table A8.7 below reveals, it is the distribution of professional level scholarship awards that raises concerns. More than one-third relate to the ISCO category *Social and Religious Professionals*. Embodied in this group are:

- Economists
- Sociologists, Anthropologists and Related Professionals
- Philosophers, Historians and Political Scientists
- Psychologists
- Social Work and Counselling Professionals
- Religious Professionals

Chart A8.8 Distribution of Scholarships 2018 by ISCO occupational type (n= 1,002)



Source: MoET Scholarship Coordination Unit

Of these occupational types, economics and social science related qualifications predominate the Vanuatu Government scholarship program. By contrast within the 'Other' group in the table, the combined health related scholarships account for only 1.4% of scholarship awards at the professional level. Education fares just a little better with a combined total of 6.1% of professional level awards.

Table A8.7 Proportion of Scholarships by Occupational Category – Professionals ISCO 3 (n=708)

ISCO	Occupational Category	% Scholarships
263	Social and Religious Professionals ⁶⁴	37%
213	Life Science Professionals	15%
241	Finance Professionals	9%
211	Physical and Earth Science Professionals	6%
214	Engineering Professionals (excluding Electrotechnology)	6%
215	Electrotechnology Engineers	4%
242	Administration Professionals	4%
	Other	18%

Source: MoET Scholarship Coordination Unit

Reform of the scholarship program is underway. The National PSET Policy includes a specific objective related to scholarships:

The award of Government and development partner funded TVET and Higher Education scholarships is merit based and strategically focused to ensure scholarship awards are inclusive, equitably distributed across provinces and educational levels, and aligned to the National Sustainable Development Plan.

To the credit of the MoET Scholarships Unit, a number of strategies, that were identified in the PSET Policy to achieve a more efficient and effective scholarship system, are now being implemented including:

- Since the beginning of 2018, applicants are being asked to indicate course preferences in relation to their relevance to the NSDP⁶⁵
- Development of scholarship priorities consistent with skill shortage and skill gap research
- Review of scholarship award criteria to ensure weighting for certificate, diploma, degree and post-graduate awards align to national skill development priorities
- Expansion of the availability of national scholarships where PSET providers have the capacity to deliver qualifications to the required standard – this has already commenced. For example, in 2018, 52 diploma level scholarships have been awarded to the Agriculture College, 25 ICT diploma level scholarships to the USP Pacific Technical and Further Education (TAFE) at the Emalus campus in Port Vila. Moreover, the current development of a degree program at Vanuatu College of Nursing Education (VCNE) should obviate the need for international nursing scholarship in the near future. Furthermore, in 2019 all new USP scholarships awardees will undertake their 100-level (basic) courses at the Emalus Campus.

⁶⁴ Predominantly economics/social sciences

⁶⁵ Vanuatu Government (2017), *Scholarships Priority Framework 2018*.

<http://www.scholarships.gov.vu/assets/file/2018VANGOVScholarshipPriorityFrameworkENG.pdf>

The increase of scholarship awards delivered by national providers has multiple benefits. Not only does it reduce the cost of individual awards; it means that scholarship funds are being invested in national providers, improving their revenue stream and facilitating continuous improvement of management and staff capacity, qualifications, resources and infrastructure. Which in turn will add further capacity to respond to higher level qualification demands.

Chart A8.9 provides an indication of the relative efficiency of national scholarships to international scholarships. In 2018, 24% of the cost allocated to national scholarships supported 39% of all awards compared to 76% allocated to international scholarships supporting 61% of awards.

Cost savings associated with localised scholarships can mean an increase in the number of available scholarship places thereby enhancing opportunities for more students – particularly for those who currently have difficulty accessing an international scholarship due their gender, disability or geographic location. Cost savings could also enable higher levels of funding for national PSET providers to further enhance the quality and relevance of their courses and course delivery.

Localised scholarships are also a form of import substitution, reducing the outflow of foreign exchange reserves to purchase services from overseas providers, and increasing the economic benefit for PSET providers and associated service suppliers in Vanuatu.

This is not to suggest that all scholarships should be localised. Clearly there are a range of high demand qualifications in professional and technical areas that will be beyond the capacity of national providers to provide in the foreseeable future.

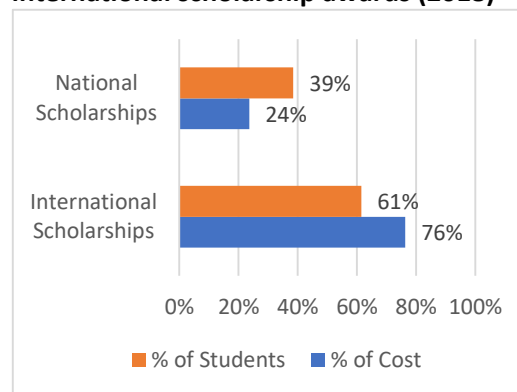
On-going research, including scholarship graduate tracer studies, is required to evaluate the impact and return on investment of the scholarship program. To guide future PSET investments, economic and financial analyses associated with this research will need include an evaluation of the relative costs/benefits of international scholarships compared to strengthening national provider capacity to the levels where scholarships can be delivered in-country.

8.2.5 Quality Assured Qualifications

In the *Industry Survey (2018)*, employers were asked how important it was for employees to have qualifications accredited by a quality assurance authority.

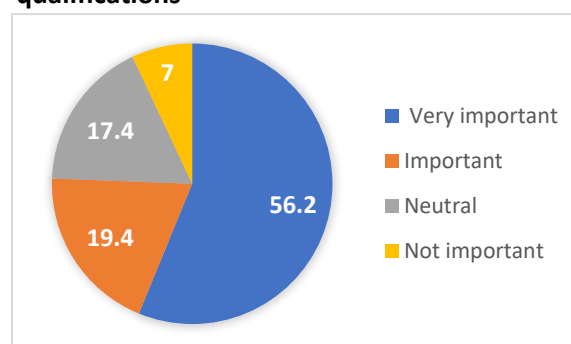
More than half considered it very important. In total 76% of the 202 respondents considered it either important or very important. Only 7% though it not important with the remainder not having a view one way or the other.

Chart A8.9 Comparative cost of national and international scholarship awards (2018)



Source: MoET Scholarship Coordination Unit

Chart A8.10 Importance of accredited qualifications



Source: Industry Survey 2018

Clearly in this context, PSET Providers are doing their students a disservice by delivering non-accredited qualifications. Given the value that employers put on accredited qualifications, students with non-accredited qualifications are at a disadvantage in what is already a tight labour market.

In both national and international labour markets, qualifications recognition is fundamental to graduates seeking employment. Quality criteria for PSET providers and the accreditation of qualifications is prescribed by the Vanuatu Quality Assurance Framework (VQAF) administered by the VQA.

The Vanuatu Qualifications Framework (VQF) prescribes expected outcomes (levels and competencies set by industry) for respective qualifications. The VQF is benchmarked to other regional and international qualification frameworks to establish levels of equivalence. Accredited Vanuatu qualifications are registered on the Pacific Register of Qualifications and Standards (PRQS).

Over recent years an increasing number of qualifications have been accredited by the VQA (Table A8.7). There has also been a trend towards higher level qualifications. Given the indications from all of the analyses in this Plan, there is a need for this positive trend to continue with a view to developing appropriate courses for accreditation and delivery that are more directly related to industry and productive sector skill demand at manager, professional, technician and associate professional levels.

Table A8.8: Accredited Qualifications (July 2018)

Industry Sector	Certificate Level				Diploma Advanced	Diploma Graduate	Total
	I	II	III	IV			
Trades	6	3	1	3			13
Tourism & Hospitality	4	5		1			10
Primary Production	4	4					8
Business	2	2	2	1			7
ICT	1	1	3		1		6
Climate Change	1						1
Nursing Education						1	1
Teacher Education				1			1
Total	18	15	6	6	1	1	47

Source: VQA Records 2018

8.2.6 PSET Providers

As part of the process to develop the NHRDP, a PSET Provider survey was also conducted in 2018. A total of 19 respondents comprising all of the public providers (except the VPC and USP), 3 private providers, 9 rural training centres and 1 international provider. In all 211 staff and 78 managers are represented in the sample including 13 and 10 foreign teaching staff and management respectively.

Table A8.9: PSET Provider survey respondents

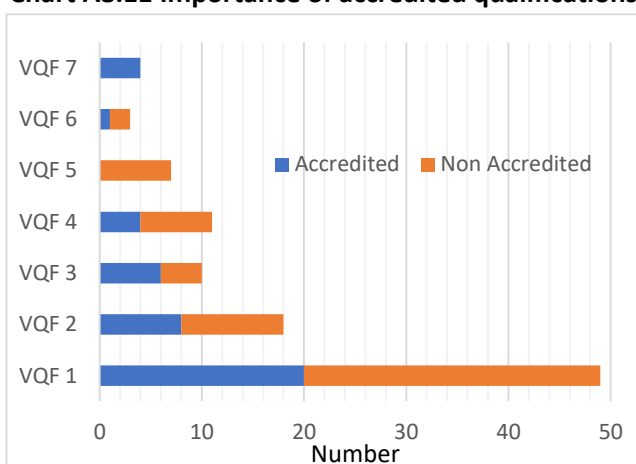
Type	# Respondents	Type	# Respondents
Public PSET Providers	6	Rural Training Centres	9
Private PSET Providers	3	International PSET Providers	1

Source: PSET Provider Survey 2018

Table A8.9 below details the range of accredited and non-accredited courses being offered across the 19 survey respondents.

As shown in Chart A8.11, the majority of courses whether accredited or non-accredited are at certificate 1 and 2 levels. These are entry level qualifications well below the standards required for tradespeople, technicians and associate professionals. The fact that almost 60% of these lower level courses are not accredited further separates them from industry standard requirements for employment.

Chart A8.11 Importance of accredited qualifications



Source: PSET Provider Survey 2018

However, as mentioned above, there is a trend towards higher level qualifications particularly at VITE and VCNE where degree programs are emerging. It is also notable that the private providers tend to offer higher level courses although 40% of them remain non-accredited. The one international provider (Australian Pacific Technical College) that responded to the survey offers VQA accredited internationally recognised trade level certificates. It is important to note that the number on non-accredited programs offered by public providers at the VQF levels 3,4 and 5 are distorted a little by the fact that the VMC has not submitted its 6 internationally recognised qualifications for accreditation by the VQA.

Table A8.10 Accredited and Non-accredited courses by VQF Level and PSET provider type

VQF Level		Public		Private		RTC		International	
		Accred	Non Accred	Accred	Non Accred	Accred	Non Accred	Accred	Non Accred
VQF 1	Certificate 1	10	18	1	-	9	11	-	-
VQF 2	Certificate 2	7	10	1	-	-	-	-	-
VQF 3	Certificate 3	1	3	2	1	-	-	3	-
VQF 4	Certificate 4	2	6	2	1	-	-	-	-
VQF 5	Diploma	-	5	-	1	-	-	-	-
VQF 6	Advanced Diploma	-	2	1	-	-	-	-	-
VQF 7	Degree	4	-	-	-	-	-	-	-
Totals		24	44	7	4	5	11	3	-

Source: PSET Provider Survey 2018

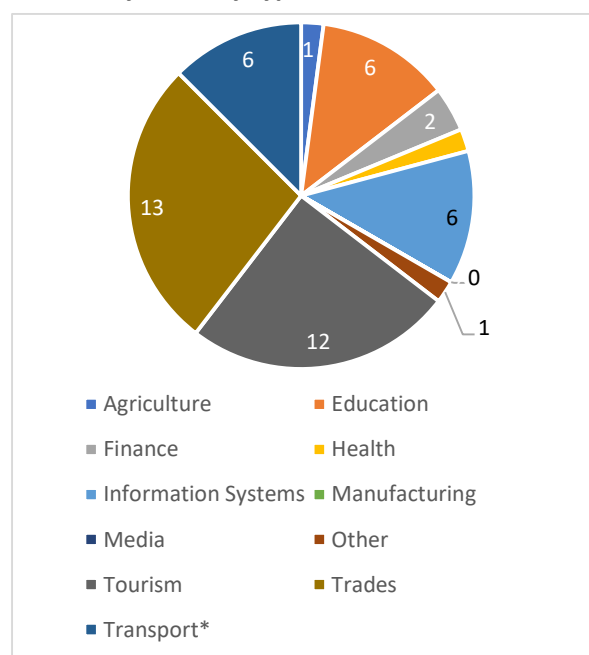
Table A8.11 shows the breakdown of accredited qualifications being offered by PSET providers by industry sector. The transport sector is asterisked because these are the VMC qualifications that have international recognition under the international convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW). Including these qualifications, only 40% of all accredited qualifications being offered by PSET Providers in Vanuatu are at trade level (Certificate 3) standard or above. Again, in a tight labour market, graduates with only Certificate 1 and 2 level qualifications, even though they are accredited, maybe still be at a disadvantage when seeking employment. The degree programs in education and health are still in a formative stage.

Table A8.11: Accredited courses by VQF Level and Industry Sector

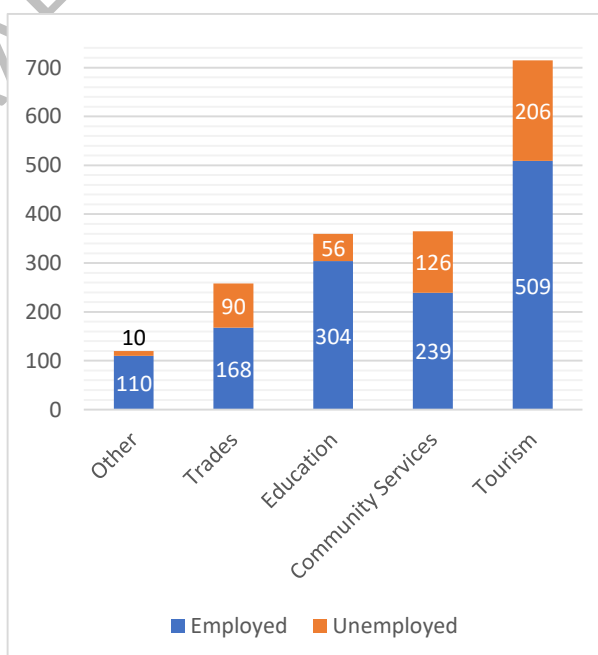
Industry Sector	VQF Level						
	Cert 1	Cert 2	Cert 3	Cert 4	Diploma	Adv. Diploma	Degree
Agriculture	1	-	-	-	-	-	-
Education	-	-	1	2	-	-	3
Finance	1	-	1	-	-	-	-
Health	-	-	-	-	-	-	1
Information Systems	2	2	2	-	-	1	-
Manufacturing	-	-	-	-	-	-	-
Media	-	-	-	-	-	-	-
Other	1	-	-	-	-	-	-
Tourism	7	4	1	-	-	-	-
Trades	8	2	1	2	-	-	-
Transport*	-	-	2	2	2	-	-
	20	8	8	6	2	1	4

Source: PSET Provider Survey 2018

Charts 11.12 and 11.13 offer some interesting insights into the nature of course selection by PSET Providers and the potential consequences of a supply driven system.

Chart A8.12 accredited qualifications all levels by industry type

Source: PSET Provider Survey 2018

Chart A8.13 ni-Vanuatu APTC graduates 2007 -2017

Source: APTC Annual Reports

Chart A8.12 shows that more than half of all accredited qualifications offered by PSET providers are either in the trade or tourism areas, but mostly at VQF levels 1 and 2. Of the remainder, education, information systems and transport predominate.

Chart A8.13 provides ni-Vanuatu graduate data, over the 10 years that the APTC has been operating in Vanuatu. During this period it has graduated more than 1800 students with an Australian qualification at Certificate 3 level or above. A high proportion of these have found employment but

there are still significant numbers who have not yet found employment. Taking this point, if local PSET providers are predominantly offering qualifications below Certificate 3 level and continue to do so, their graduates will continue to find strong competition from many in the labour market with higher level qualifications. Clearly, the investment in courses where graduates find it difficult to find employment is an inefficient use of limited resources. PSET providers need to be much more responsive to labour market demand both in the private and public sectors if they are to maximise opportunities for their graduates and generate a better economic outcome on the education and training investment.

8.2.7 Private PSET Providers

A specific objective in the National PSET Policy is for “Government investment in PSET is supplemented by increased levels of private sector, non-government and community funding of PSET program delivery” (Objective 4a).

Up until recently PSET delivery has been through a number of public providers and a network of rural training centres generally governed by NGOs. The National PSET Policy includes elements that focus on fostering an enabling environment that encourages increasing levels of private and non-government delivery of PSET qualifications in Vanuatu.

There are now two private providers that, having achieved VQA accreditation for a number of courses, are now delivering these courses. Importantly, all of these courses are at a higher level compared to most of the accredited courses offered by public providers.

Table A8.12 Private Provider Accredited Qualifications (July 2018)

Private Provider	Qualification Level	Course
Pacific Vocational Training Centre	Certificate IV	Electrical Engineering (Installation & Maintenance)
	Certificate IV	Mechanical Engineering (Refrigeration & Air Con)
Edwards Computer Foundation	Certificate III	Computing (Hardware)
	Certificate III	Computing (Networking)
	Certificate III	Computing (Support)
	Diploma - Advanced	Information Systems

Source: VQA Records 2018

8.2.8 PSET Provider Issues

Adequate funding levels are a significant issue for PSET providers. Clearly there is a need for greater efficiencies, but low funding levels continue to impede PSET Provider capacity to improve service. Opportunities for PSET providers to increase the funding base have been outlined above, including PSET provider rationalisation, industry-based training, localised scholarships, realignment of funding allocations to improve PSET provider share and performance-based funding focused on outcomes and efficiency. In the medium term, more effective delivery of accredited qualifications and better graduate employment outcomes, will also improve opportunities for tuition fee increases.

However, in the meantime there are a number of constraints identified by PSET providers who responded to the PSET Provider survey.

Firstly, literacy and numeracy levels of students at enrolment and the technical and teaching capacity of staff were the two more significant issue as illustrated in the following table.

Table A8.13 Most significant issue affecting quality of PSET qualifications (Top 5)

Most significant Issue	Rank ⁶⁶
Literacy/numeracy levels of students at enrolment	1
Ability to recruit skilled instructors/lecturers/teachers	2
Student fees	3
Teaching and learning resources	4
Availability of data to guide planning	4
Information, communications technology (ICT)	5

Source: PSET Provider Survey (2018)

The low literacy/numeracy levels at entry is a further indication of broader primary and secondary school level literacy and numeracy issues outlined in Section 8.1. Any aspiration to deliver, higher level technician and professional level qualifications is absolutely at risk if entrants into PSET courses have inadequate reading, writing and numeric skills.

It is noteworthy that results from both the Industry and PSET Provider surveys shared this common concern for language literacy and learning (LLN) levels. A significant number of Industry respondents referred to a lack of LLN skills as a predominant issue within their workforce. Similarly, PSET providers rank literacy and numeracy as their number one concern.

In 2017, the Minister of Education and Training launched the **National Adult Language, Literacy and Numeracy Framework** (NALLNF). In his foreword to the Framework, the Minister noted that it “...is particularly relevant to those working in the PSET sector (TVET and Higher Education) where learners of technical skills require certain levels of LLN for their learning to be effective”.⁶⁷

In 2018, based on the agreed Framework, a **NALLN Strategy** is in preparation. The draft Strategy notes that low LLN levels have hindered the delivery of PSET programs and people’s capacity to work in a range of industries. It further notes that MoET is committed to addressing the complex and high LLN needs at all levels of the education system in Vanuatu and across all societal contexts.

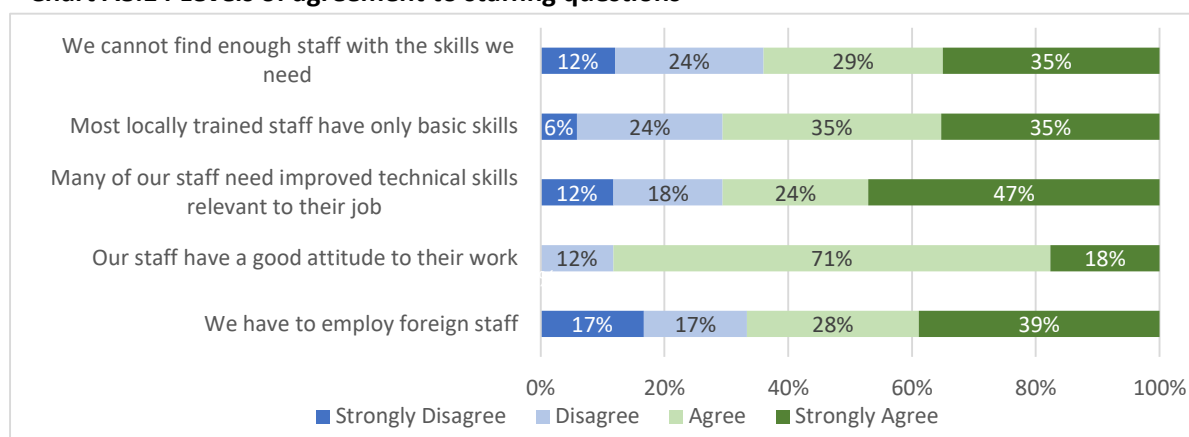
Also, in common with the industry survey respondents, PSET providers regarded the ability to recruit suitably qualified staff as a high-level issue. Out of 10 possible issues, the ability to recruit skilled instructors/lecturers/teachers was the second most significant issue cited by institute directors/principals.

Chart A8.14 below highlights the degree to which there is agreement or not to a range of staffing related issues. Again, there is a consistent pattern of responses to similar questions asked in the industry survey. Difficulties finding skilled staff and the sense that existing staff only have basic skills and lack technical skills all have a high level of agreement. The need for foreign staff is generally agreed to and there are high levels of agreement in relation to the good attitude of staff.

Source: PSET Provider Survey 2018

⁶⁶ Proportion of responses by identification of issue

⁶⁷ National Adult Language, Literacy and Numeracy Framework for Vanuatu (Ministry of Education and Training, 2017)

Chart A8.14 Levels of agreement to staffing questions

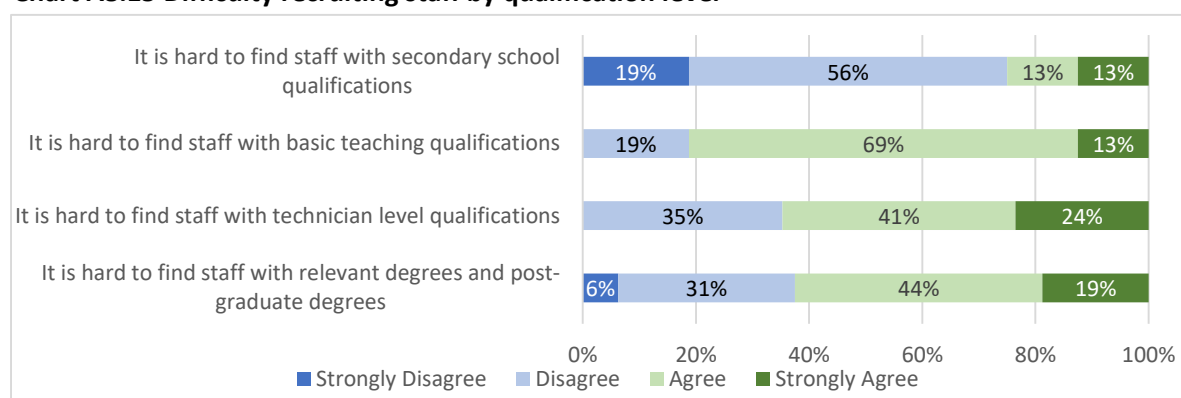
Asked directly whether the respondents believed their staff have the skills to do their job, only 1 in 4 believed all their staff had the necessary skills to do their job while more than half believed that only some staff had the requisite skills – see Table A8.13 below.

Table A8.14 Perceived Teaching and Management Staff Skill Levels

Level of Skill	% of Responses
All our staff have the skills to do their job	27
Most of our staff have the skills to do their job	20
Some of our staff have the skills to do their job	53

Source: PSET Provider Survey (2018)

When questioned about which qualification levels were hardest to recruit, there was general agreement that people with relevant degrees and/or technician level qualifications were hard to recruit. Significantly, the highest level of agreement (82%) related to the difficulty of recruiting people with basic teaching qualifications.

Chart A8.15 Difficulty recruiting staff by qualification level

Successive Australian funded programs, including the APTC, have over a number of years supported PSET trainer training through the delivery of the Australian minimum trainer qualification – Certificate IV in Training and Assessment. More recently VITE has added a similar pre-service PSET qualification to its course profile. As a result of these initiatives, the pedagogical skills of instructors have been enhanced. However, there remains a concern that their technical capability is below current industry standards. For example, most Public PSET instructors are employed through the TSC with guaranteed tenure. Many have been in the Institute for a very long time and lack current

industry experience. Lack of strong industry linkages has meant that many instructors have not had opportunity (or possibility the incentive) to improve their technical skills over time.

Under the VQF, for a course to be accredited and a qualification to be recognised, PSET providers must demonstrate that they have staff with qualifications at least one level above the course being delivered. It is therefore imperative, if higher level qualifications are to be delivered by PSET providers to meet industry standards, that some levels of PSET funding (including scholarships) needs to be redeployed to raise the qualification levels of existing staff.

A current example of this issue has arisen with the VCNE working hard to develop a nursing degree but not having sufficient number of ni-Vanuatu nurse educators for its actual delivery. Given the acute shortage of nurses identified in Annex 4, scholarship awards need to be prioritised to enable qualified VCNE staff to undertake post-graduate qualifications in sufficient numbers to meet increasing levels of demand for degree qualified nurses as the population and demand for health services grow.

8.3. Annex Summary

- VANSTA indications that literacy rates improving but still significant issues with 1 in 3 grade 4 students not meeting minimum literacy standards
- The most significant issue for PSET providers in the literacy and numeracy levels of students at entry
- NER comparable but high repetition and low completion rates at primary and secondary levels compared to Pacific averages
- In addition to large number of vacant teacher positions, the number of uncertified primary teachers is an issue
- School infrastructure and available resources need improvement
- PSET Funding – allocation of resources to PSET Providers is lagging increased funding to the PSET system generally
- Overall funding allocation to scholarships remains disproportionate to other elements of the PSET system
- PSET Provider Capacity Constraints – outdated technical skills of instructors are below current industry standards and permanent employment structures inhibit incentives for self-improvement
- Quality Assured Qualifications –public providers still lagging with most of their accredited qualifications at lower certificate levels.
- Flexible delivery and workplace training – preferred by employers and an essential element of filling skill gaps but limited practice by PSET Providers in this area
- NALLN strategy close to finalisation to tackle adult literacy issues particularly in PSET environment

ANNEX 9 - REFERENCES

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