



Skilling the Pacific

TECHNICAL AND VOCATIONAL EDUCATION
AND TRAINING IN THE PACIFIC



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Acronyms and Abbreviations

A\$	Australian dollar
ADB	Asian Development Bank
AusAID	Australian Agency for International Development
CBT	competency-based training
CMI	College of the Marshall Islands
COM	College of Micronesia
DMC	developing member country
€	euro
EFTS	equivalent full-time student
EU	European Union
F\$	Fiji dollar
FIT	Fiji Institute of Technology
FSM	Federated States of Micronesia
GDP	gross domestic product
GNP	gross national product
HDI	Human Development Index (UNDP)
IATP	Integrated Agriculture Training Program (PNG)
ICT	information and communications technology
ILO	International Labour Organization
JICA	Japan International Cooperation Agency
K	kina (PNG)
km ²	square kilometer
MIRAB	migration, remittances, aid, and bureaucracy
MOE	Ministry of Education
MTI	maritime training institution
NATTB	National Apprenticeship and Trade Testing Board (PNG)
NDOE	National Department of Education (PNG)

NGO	nongovernment organization
NQAB	National Qualifications and Accreditation Board (Tonga)
NQF	national qualification framework
NTC	National Training Council (PNG, RMI)
NUSIOT	National University of Samoa, Institute of Technology
NZAID	New Zealand's Agency for International Development
ODL	open and distance learning
PATVET	Pacific Association of Technical and Vocational Education and Training
PHS	Palau High School
PIC	Pacific island country
PIFS	Pacific Islands Forum Secretariat
PNG	Papua New Guinea
PRIDE	Pacific Regional Initiatives for the Delivery of Basic Education
RMI	Republic of the Marshall Islands
RMP	Regional Maritime Program of SPC
RTC	rural training center (Solomon Islands, Vanuatu)
SI\$	Solomon Islands dollar
ST	tala (Samoa)
SICHE	Solomon Islands College of Higher Education
SPC	Secretariat of the Pacific Community
SQA	Samoa Qualifications Authority
T\$	pa'anga (Tonga)
T3	trades, training, and testing (FSM)
TA	technical assistance
TIST	Tonga Institute of Science and Technology
TMTI	Tuvalu Maritime Training Institute
TPAF	Training and Productivity Authority of Fiji
TTI	Tarawa Technical Institute
TVET	technical and vocational education and training
UNDP	United Nations Development Programme
US	United States
USP	University of the South Pacific
Vt	vatu (Vanuatu)
VIT	Vanuatu Institute of Technology
VNTC	Vanuatu National Training Council
WAM	Waan Aelon in Majel (RMI)

Note:

In this publication, "\$" refers to US dollars.

Glossary and Definitions

Competency	Skill
Education	Acquiring knowledge
Formal training	Organized training as part of the formal system of education and training
Informal sector	Nonwage (or unregistered, nontax-paying enterprises)
Informal training	Acquisition of skills through ad hoc means, such as from parents, elders, or by observing and practicing on the job
Modern sector	Registered enterprises, wage paying
Nonformal training	Organized training outside the education and training system
Prevocational	Providing basic skills-oriented subjects as part of a general secondary curriculum
Skills development	Acquiring practical competencies, know how, and attitudes necessary to perform a trade or occupation in the labor market
Training	Preparing for an occupation
Training provider	One who delivers training
TVET	Technical and vocational education and training, i.e., training supply

Preface

Development of skills is an area of concern highlighted repeatedly by Pacific ministers of education. Leaders of the Pacific region are worried about the implications of burgeoning youth populations and lack of opportunities to earn livelihoods in many countries. Developing skills is a key element both for private sector development and for creating more income-earning opportunities for the poor, the latter of which is one central focus of the overall Pacific strategy of the Asian Development Bank. However, the international knowledge base in this area is much weaker than that for basic education.

In April 2004, the leaders of the Pacific Islands Forum endorsed in the Auckland Declaration the development of a Pacific plan for “deeper and broader” regional cooperation. The wide-ranging plan, which Pacific governments subsequently adopted in 2005, sets out four core areas: economic growth, sustainable development, good governance, and security. It emphasizes the importance of strengthening vocational and technical training and its links with the labor market. It also reinforces the earlier (2001) Forum Basic Education Action Plan in which the education ministers covered a broad range of areas in formal and informal education, including skills development. The Pacific plan has a specific mandate to investigate the potential for expanding regional technical and vocational education and training programs. This study, *Skilling the Pacific*, has answered this mandate. The study was designed to analyze issues of supply and demand for vocational skills, develop responsive and effective country and regional strategies for skills development, and identify investments necessary to implement these strategies. Given this context and the importance of skills development, the Pacific Islands Forum Secretariat was pleased to be the executing agency for this major study.

All countries provide technical and vocational education and training (TVET) in one form or another. Yet it has been a neglected area in terms of research, especially in the Pacific. This study helps fill that gap. It shows issues that need to be addressed of relevance, quality, equity, and organizational effectiveness in providing TVET.

All 13 countries covered by this study have skills shortages in different areas. Employers have noted that the skills gap is a huge constraint to the development of the private sector in the region.

TVET has significant political appeal and it is often regarded as something that will solve all youth and unemployment problems. It is clearly not that miracle solution, but it can offer opportunities for earning either a livelihood in the formal—or more important—informal sector of the Pacific economies. TVET is costly, so it is vital that it be delivered in a cost-effective manner that ensures the best possible outcomes.

This study has highlighted many good practices from around the region, which provide excellent case studies. Clearly, policy makers and others need to learn from each other what works and what does not in the Pacific context. It is crucial to avoid repeating the same costly mistakes.

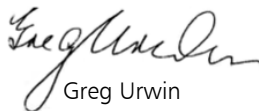
This study does not provide a single model that will suit all countries, but it does provide a set of constructive strategies and recommendations for reform that, if acted on, could lead to significant improvements. We sincerely hope that the recommendations for projects, which could lead to the development partners providing support for TVET, would be implemented.

There was a high level of participation in this study from a wide range of people and organizations from the region, which has led to what is, we believe, a quality report.

We would like to thank the Government of Japan for funding this study through the Japan Special Fund. We are also grateful to the many people from the 13 countries who gave freely their time to make this an important document on which future policies and practices can be based.



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Acknowledgments

The title for this synthesis publication, *Skilling the Pacific*, had its inspiration from a program entitled *Skilling New Zealand*. The title was suggested at the initial consultative workshop held on 31 May–1 June 2006 that launched the work.

The publication is the result of collaboration among a number of consultants of the Asian Development Bank (ADB) under the direction of Kowsar P. Chowdhury, Education Specialist, Pacific Department. She was instrumental in launching it as one element in the implementation of ADB's *Better Learning, Better Future: Education and Training Strategy for the Pacific*, of which she was the principal author.

Richard Johanson is the main author of this publication, assisted by Paul Brady, Alex Gorham, and Carmen Voigt-Graf. Helen Tavola, Social Policy Adviser of the Pacific Islands Forum Secretariat—the executive agency for this study—supervised project operation, including providing technical support. Diane Barr, Project Manager, provided administrative support and coordinated the day-to-day activities of a large number of experts producing this study.

Under the guidance of Indu Bhushan, Director, Pacific Department; Kiyoshi Nakamitsu, Education Specialist; Ophie Iriberry, Senior Programs Officer; and Susan Francisco, Operations Officer; and Cecil Caparas, Assistant Knowledge Management Analyst; ADB, completed the document for publication. Tara Mehretab, Operations Assistant, ADB, provided administrative help during various phases of the implementation of this study and organized a web posting for comments.

The publication consolidates the findings of six in-depth country reports and seven background country reports, a literature review, and surveys of employers and employees, all produced under the regional technical assistance 6268 for the Implementation of the Pacific Education Strategy: Skills Development. The individual authors of the in-depth reports on technical and vocational education and training (TVET) are Paul Brady, Alex

Gorham, Richard Johanson, and Eci Naisele (Fiji Islands); Paul Brady, Temaia Ereata, and Alex Gorham (Kiribati); Beno Boeha, Paul Brady, Alex Gorham, and Richard Johanson (Papua New Guinea); (iv) Paul Brady, Alex Gorham, Ben Graham, and Richard Johanson (Republic of the Marshall Islands); (v) Richard Johanson and Valisi Tovia (Tuvalu); and (vi) Paul Brady, Alex Gorham, Richard Johanson, and Henry Vira (Vanuatu). Authors of the background country reports on TVET were Teresa Manarangi-Trott (Cook Islands); Augustina Takashy (Federated States of Micronesia); Bernard Grundler (Nauru); Augustina Takashy (Palau); Perive Tanuvasa Lene (Samoa); Louisa Fakaia (Solomon Islands); and Nonga-'i-Saione Soakai (Tonga). Carmen Voigt-Graf prepared the literature review, and the employer and employee surveys.

The publication benefited from the analytical work to support a plan on skills development in the Solomon Islands (World Bank 2007) with help from the European Union (EU) and the New Zealand's Agency for International Development (NZAID). The Australian Agency for International Development and NZAID also provided valuable comments.

Special thanks go to those who helped steer and provided advice on the project during implementation. These include the attendees at the initial consultative workshop organized to identify issues and concerns.¹ A steering committee comprised of TVET stakeholders based in the Fiji Islands also provided guidance for the execution of the project.²

The publication was reviewed and improved following a workshop in Nadi, Fiji Islands on 8–10 May 2007. The following TVET stakeholders were represented in the workshop: manager, Department of Human Resources Development, Cook Islands; director, Federated States of Micronesia Association of Nongovernmental Organizations; deputy secretary, Ministry of Labour, Papua New Guinea; director, National Training Council, Republic of the Marshall Islands; president, Pacific Association of Technical and Vocational Education and Training, Samoa; director general, Ministry of Education,

Vanuatu; chief executive officer, Training and Productivity Authority of Fiji, Fiji Islands; education officer, Ministry of Education, Fiji Islands; head, Community Education Training Center, secretariat for the Pacific community), Tonga; head, Institute of Education, University of the South Pacific, Solomon Islands; and head, Department of Education, University of the South Pacific, Fiji Islands.

ADB and the Pacific Islands Forum Secretariat thank the governments of the Pacific island countries, especially the stakeholders in TVET, for their generous cooperation and support throughout the implementation of this regional technical assistance project.

1 The attendees were: Pacific Association of Technical and Vocational Education and Training (PATVET) representative, Cook Islands; chief educational officer (Technical and Vocational Education and Training [TVET]), Fiji Ministry of Education; deputy chief of mission, Federated States of Micronesia (FSM) Embassy, Suva; former principal, Tarawa Institute of Technology, Kiribati; assistant director, Ministry of Education, Nauru; chief, Division of Labor, Palau; chief of labor and industrial relations, Republic of the Marshall Islands; head of school of engineering, National University of Samoa; project manager, European Union TVET project, Solomon Islands; acting principal, Institute of Science and Technology, Tonga; acting director, Ministry of Education and Sports, Tuvalu; director general, Ministry of Education, Vanuatu; education adviser, Pacific Regional Initiatives for the Delivery of Basic Education (PRIDE); and a representative from the New Zealand's Agency for International Development.

2 The steering committee members included the Community Education Training Center, secretariat for the Pacific Community; chief educational officer (TVET), Fiji Ministry of Education and PATVET; deputy director, Fiji Institute of Technology and PATVET, Fiji Islands; Fiji Chamber of Commerce; International Labour Organization (ILO), South Pacific Board of Educational Assessment, and University of the South Pacific.

Highlights



The informal sector is the dominant segment of the labor market in most Pacific island countries and is where most school-leavers will have to find work. Training for the informal sector has to become the top priority. This means sufficient new resources should be allocated for informal sector training, training strategies designed, and capacity built to support the rural and informal sectors, in part by boosting the technical expertise and delivery capacity of nongovernment organizations.

Many issues in technical and vocational education and training (TVET) derive from inappropriate and unclear organizational structures. Getting the structure right is, therefore, the first step to more effective TVET systems. Where possible, TVET systems should be governed by apex organizations such as national training authorities. These apex organizations should be based on partnerships among stakeholders and driven by employers, who represent demand for skills. Apex organizations should have the executive authority to link training supply with demand, based on labor market information; coordinate providers; set priorities, policies, and directions; and allocate resources.

Choices about where to invest in skills development should be based on evidence of achieving formal/informal employment with minimum resource outlay. Enterprise-based training should be expanded, e.g., apprenticeships and institutional training closely linked with the labor market. However, investing in “vocationalization of secondary education” is not supported by this review. It is expensive, difficult to do well, and it usually fails to confer better labor market outcomes on graduates. Instead, resources should be allocated to stand-alone training programs well grounded in the labor market and which target those who are in, or about to enter, the labor market.

Quality in skills development for both the formal and informal sectors requires three elements: occupational standards, sufficient inputs, and measurement of outputs against those standards. Developing occupational standards should be pursued by designing national qualification frameworks provided they focus on outputs (competencies) rather than inputs (courses required), and avoid complexity. Minimum standards should be set for public TVET providers and they should be subject to accreditation and periodic quality audits. In addition, output indicators should be defined and measured against the standards. Information on the impact of training should be developed—e.g., tracer studies of graduates—and factored into training policies and resource allocations.

Current incentives in Pacific island countries’ TVET systems result in inertia. Budgets are given year after year regardless of performance. This review recommends that incentives be changed for those managing skills development. Managers of training institutions should be given authority through devolution, along with accountability for results. Results should be compared against targets, and budgets should be allocated according to performance. At the same time, managers should be enabled to develop their capacities through in-service management development programs.

Tackling these five major reforms would justify substantially increased public and private investment in skills development.

Chapter Summary



Introduction

A nation's economy runs on the knowledge and skills of its people. Skills development is becoming a priority for countries in the Pacific, fueled in part by the surging numbers of youth who have completed formal schooling yet lack the practical skills that are useful in the labor market. Skills formation has also become a priority in countries of the Pacific where job growth and emigration have created skills shortages. In view of its growing importance, the Asian Development Bank (ADB) arranged for a comprehensive study of technical and vocational education and training (TVET) in the Pacific as part of the implementation of its policy on better learning, better future: education and training strategy for the Pacific.

The regional technical assistance analyzes TVET in 13 Pacific island countries (PICs), proposes strategic options for reform, and identifies possible project investments at both country and regional levels. The study, carried out in April 2006–September 2007, was financed by the Japan Special Fund—implemented by ADB—and executed by the Pacific Islands Forum Secretariat (PIFS). This publication synthesizes the findings from various parts of the study, including six in-depth country reports, seven background reports on other PICs, a literature review, and a regional survey of employers and employees.

Chapter 1: Socioeconomic Background: Country Typologies (also Appendix 1)

The diversity of the region and the different stages and prospects for development suggest grouping the countries for purposes of analysis. Three categories are presented: group 1: land-rich, low-income countries—Papua New Guinea (PNG), Solomon Islands, and Vanuatu; group 2: small, vulnerable island states—Kiribati, Republic of the Marshall Islands (RMI), Federated States of Micronesia (FSM), Nauru, and Tuvalu; and group 3: “advanced” island states—Cook Islands, Fiji Islands, Palau, Samoa, and Tonga. The countries in group 1 have low social and economic indexes, but positive agricultural potential. The vulnerable island states, group 2, face severe economic constraints, few economic prospects, and issues of sustainability. Countries in group 3 have relatively good prospects from tourism, remittances from abroad, and emigration.

Chapter 2: Skills Gaps in the Pacific (also Appendix 3)

Most PICs have limited jobs in the formal economy for their expanding populations. Growth of the labor market far exceeds growth in wage jobs. This means most new entrants will have to work in the informal sector. The informal sector in the Pacific is largely limited to the processing and merchandising of primary produce; providing services such as carpentry and mechanical repair, transport, and small-scale vending; and producing and selling handicraft and sewn materials. Skills gaps occur in all these activities. Small-scale

fishing and other primary production provide the main opportunities in the vulnerable island states, and greater agricultural production in the land-rich states.

Ironically, formal sector jobs are limited, but pockets of skills shortages occur throughout the wage economies of the Pacific. Three main factors are responsible: growth in the mining sector (PNG) and tourism (Cook Islands, Fiji Islands, Samoa, Tonga, and Vanuatu) have created a rising demand for skilled labor, especially in hospitality and construction. These countries lack sufficient people with the skills in management/supervision and trades occupations capable of working to international standards; emigration has positive aspects, including remittances to the source country and opening jobs locally. However, emigration exacerbates domestic skills shortages as many with skills leave for better-paying jobs elsewhere; and the supply chain of TVET is insufficient in key fields, and TVET graduates do not often have the level of knowledge and skills required for the job.

Chapter 3: Landscape and Architecture of Technical and Vocational Education and Training in the Pacific

What patterns and structures are in place for skills development in the Pacific? Skills training generally cover only a fraction of students in PICs, but it is provided through a rich variety of sources. TVET consists of three distinct subsystems in the Pacific—school-based (part of the formal education system), including prevocational in secondary schools and postsecondary technical institutions; center-based trade training outside the formal school system; and enterprise-based training (e.g., apprenticeships). Almost all countries in the Pacific region have some skills courses in secondary schools, with Palau and Fiji Islands the most prominent. All countries—except the smallest (Cook Islands, Nauru, and Tuvalu)—have postsecondary technical institutes. Similarly, outside the school system, almost all PICs have stand-alone trade training centers (except the RMI, Nauru, and Tuvalu). Enterprise-based training in the form of apprenticeships is practiced in half the countries. Private training providers are important sources of skills development in most countries in the region. This includes nonprofit institutions, usually church based, that provide extensive training infrastructure; and for-profit training providers (for example, 50 registered for-profit private training providers in the Fiji Islands and over 100 in PNG.) Rural training systems are extensive in group 1 countries. Almost all PICs (11 of 13) have maritime training institutions.

TVET organizational setup and management mirror the diversity of providing training. Ministries of education manage prevocational training in secondary schools and some postsecondary training. Postsecondary technical institutes are either semi-self-governing—Fiji Institute of Technology (FIT), Vanuatu Institute of Technology (VIT), National University of Samoa, Institute of Technology (NUSIOT), and the community

colleges along the northern rim—or under separate ministries (Cook Islands and Tonga). Ministries of labor and commerce also play a key role in skills development in Kiribati, PNG, and Solomon Islands. In addition, three national training councils operate in the region (PNG, RMI, and Vanuatu). This organizational diversity makes coordination important and a challenge.

Another feature of skills development in the Pacific is the growing interest in national qualification frameworks (NQFs). NQFs are being developed or considered in most areas, except the northern tier. Three countries have or will have national qualification bodies (Samoa, Tonga, and Vanuatu), and NQFs are being considered in others (Fiji Islands and PNG).

Financing, as a provision of TVET, comes from multiple sources. Public financing constitutes the majority source through ministry budgets. In many cases, public funding is declining. Private financing through tuition charges and fees is important in about half the countries. Production activities partly finance the costs of some nonprofit training providers. Three levy systems exist, but only one, Fiji Islands, pumps much financing directly into training. Almost all countries depend on external financing for capital expenditures. Five countries, mainly along the northern rim, depend wholly on external financing for all expenditures.

Chapter 4: Analysis of Technical and Vocational Education and Training Systems in the Pacific

What is working well in Pacific skills development and what needs to be improved? The review examines this question according to five criteria.

Economic Relevance. How well do the training systems produce graduates needed in the economy? Mismatches are common in the Pacific region. Most countries report shortages of skills—particularly in certain fields such as construction, tourism, and mining—owing to growth and emigration. However, surplus labor in the informal sector is the main challenge. Economies cannot generate enough wage jobs for the number of new entrants to the labor market. Thus, an increasing number of youth either are unemployed or must work for themselves in the informal sector. Unfortunately, most skills training is geared toward wage employment, not productivity in the informal sector.

An economically relevant system of skills development requires three essential ingredients: information about job trends, close employer involvement in guiding the system, and a training supply chain that is flexible in responding to changes. Pacific TVET systems fall short on these three criteria. With some exceptions, little is known generally about skill demands or about the absorption of trainees into the labor market through tracer studies. The exceptions are labor market surveys in Solomon Islands and Vanuatu, and tracer studies in Palau, Solomon Islands, and Vanuatu. Second, employers need to

be more involved in helping steer TVET policy and supply in the right directions. This occurs in the Training and Productivity Authority of Fiji (TPAF) with good results. The Pacific region does well in making workplace attachments an integral part of training, particularly apprenticeships, which keep trainers and trainees in touch with job requirements and trends. However, as a rule, employers are not consulted sufficiently. Third, Pacific training systems have been challenged to make their programs flexible, up to date, and responsive to changing demands. The Tarawa Technical Institute (TTI) exemplifies how to blend short-term and outreach programs with long-term training but, for the most part, Pacific training is long term (2–3 years) and unchanging in content.

Quality of Skills Training. How effective are Pacific training systems in imparting necessary competencies? Quality training requires three essential elements: definition of standards based on occupational analysis; sufficient inputs in well-organized training content, qualified instructors, appropriate facilities, equipment, and consumable supplies; and measurement of outputs against standards. Several countries (e.g., the Fiji Islands, PNG, Samoa, Tonga, and Vanuatu) are introducing NQFs based on the generation and employer ratification of occupational standards. However, there may be overexpectations and an underappreciation of the work involved. The relationship between national and international standards, as required for migration, is not yet developed. The proposed Australia–Pacific Technical College could help bridge the gap. Several countries have also introduced competency-based training (CBT), which breaks training objectives into modular content as an effective way to impart skills. At the VIT, the application of CBT has increased successful student completion dramatically. Several countries have offered technical teacher training (e.g., the Fiji Islands and PNG), although these tend to focus on pedagogical, rather than technical, skills.

Inadequate financing for equipment repair/replacement and for consumable materials constitutes a region-wide complaint. Inadequate financing compromises the practical parts of the curriculum. In terms of measuring outputs, several countries have established traditions of trade testing such as the Fiji Islands, Kiribati, and PNG, but most do only internal evaluations. For example, technical training institutes do not establish international or regional benchmarks. Nonformal training programs, in particular, lack feedback and evaluation measures.

The review calls attention to salient high-quality training in the region:

- Maritime training exemplifies high-quality training in most countries in the region. The Secretariat of the Pacific Community program ensures that international standards are met in terms of essential inputs (e.g., training content, qualified instructors) and output specifications.
- Postsecondary technical institutions are typically of good quality, e.g., FIT, VIT, NUSIOT, TTI, and Palau Community College, partly because they can concentrate resources

in one location; the FSM is an exception. These are key institutions for quality improvement in teaching at lower levels. The FIT franchise program (Box 3.2) is an outstanding case of such beneficial influence.

- Church agency training is often excellent and provides a standard to which public institutions can aspire, such as Don Bosco and Montfort.

- Examples of high-quality training for the informal sector were found in PNG and Vanuatu, but they suffer generally from inappropriate methodologies, a lack of coordination among service providers, and weak links with local labor markets.

However, prevocational programs in secondary education—vocalizing secondary education—have decidedly mixed results. The program works well in Palau at the high school, but rarely succeeds in countries with multiple secondary schools. The reasons have to do with expense of equipment and facilities, shortage of trained instructors, and low status of practical courses in an otherwise academic environment. Little evidence was found that the labor market outcomes of these programs are cost effective.

Finally, several countries (e.g., the Fiji Islands and PNG) are attempting to apply minimum quality standards to for-profit private trainers, but this has proved difficult to sustain. Sufficient resources have not been forthcoming to cover the costs of accreditation and monitoring.

Equity and Access. How well do Pacific training systems provide equitable access? In general, opportunities for developing technical and vocational skills are available only to a minority of those who enter the labor market, perhaps between 5% and 20% at most. Others are left to fend for themselves in unproductive and low-paying work. Training opportunities also tend to be concentrated in urban areas and available to those who can afford to pay. Nongovernment organizations (NGOs) play a key role in spreading opportunities for skills training in rural areas (including PNG, Solomon Islands, and Vanuatu). For traditional occupations, males tend to dominate skills training in the Pacific. Women typically make up only 20–30% of enrollments (PNG, Solomon Islands, and Vanuatu) and much less in some countries (the Fiji Islands' TPAF, or the Tonga Institute of Science and Technology). Men tend to monopolize technical and trades training, while women are found almost exclusively in home-oriented courses (e.g., sewing, cooking, and housekeeping). However, exceptions exist: VIT increased the share of female enrollment from 37–42% between 2004 and 2006. The church-agency vocational centers in PNG enroll thrice as many female students as do government institutions although they are outnumbered 73 to 56. Females comprise almost half of the vocational center enrollment in the Fiji Islands. Still, the overall pattern remains clear—i.e., the most disadvantaged in terms of access to TVET are women and girls.

Organizational and Management Effectiveness. How effective is the organization and management of Pacific skills development in achieving its objectives? Managing

TVET is arguably the most difficult subsector in the spectrum of the education sector. It must address changing and often unknown labor market demands and heterogeneous target groups, provide varied types of training, and compete for resources against larger subsectors. The study identified strong management systems in various parts of the Pacific, including among leading postsecondary technical institutions, such as FIT, NUSIOT, Palau Community College, and VIT. The existence of three national training councils is an important step forward. These councils provide a venue for the main stakeholders to articulate demands, set priorities, and steer TVET in the direction of user demands and market changes. TVET plans have been prepared in PNG, Solomon Islands, and Vanuatu. New organizations are being set up to address skills development along the southern rim (Cook Islands, Samoa, and Tonga). Moreover, an organization of TVET professionals has been established, the Pacific Association of Technical and Vocational Education and Training (PATVET), which offers a forum for professional exchange and development throughout the region.

Major challenges were also identified for organizational and management improvements. Mandates of various supervisory organizations need to be clarified (the RMI and PNG). Coordination needs to be established among the main providers (i.e., the Fiji Islands, FSM, PNG, and Solomon Islands). Fragmentation and lack of coordination need to be countered among informal sector trainers in the Fiji Islands and Vanuatu. Excessive centralization should be changed in PNG, where the Ministry of Education still controls directly the business and technical colleges. The apex training organizations in the RMI, PNG, and Vanuatu require more resources to carry out their functions properly. PNG, Solomon Islands, and Vanuatu need to prioritize their TVET plans, calculate the costs, and budget them properly. TVET plans are needed in the Fiji Islands, Kiribati, FSM, and Tuvalu. Standards for evaluating management performance need to be introduced throughout the region, and managers must be given opportunities for in-service professional development. Finally, lack of data and research on TVET, an almost universal handicap to progress, must be overcome.

Finance and Internal Efficiency. How do Pacific TVET systems mobilize resources well and use them efficiently for skills development? Examples abound of inefficient use of resources in TVET, including low teaching loads and low trainees per student in some institutions, fragmentation of spending (FSM), and courses that are excessively long for the skills imparted. Inefficiencies occur in part because training budgets are established based on historical levels, not performance. Little use is made of financial transfer mechanisms to improve the input–output ratios in TVET.

Positively, some institutions have accomplished major reductions in the cost per trainee. FIT, for example, raised the average number of students per teacher from 20–30 between 2001 and 2006, an indication of reduced spending per student. In part, this

was out of necessity as the government froze its funding while student enrollments soared. Public expenditure on TVET throughout the region came under pressure because of constraints on public budgets as a whole. Spending on TVET decreased as a share of public spending in many countries, including the Fiji Islands, PNG, and Vanuatu. To compensate, FIT succeeded in increasing the proportion of student financing through tuition fees to half of total expenditures. Similarly, VIT increased the share of tuition fees and other user charges to a third of spending. The Compact of Free Association countries in the northern Pacific—the RMI, FSM, and Palau—in particular, face the challenge of weaning themselves off external financing. Private training providers, if they meet minimum quality criteria, can help enormously in generating needed skills without burdening public expenditures. Across the region, the challenge is to reduce the dependence on public or external financing by mobilizing nongovernment financing for TVET.

Chapter 5: Priorities and Strategic Options

TVET priorities are identified by country groups. The top priority in land-rich, low-income (group 1) countries is training for the informal sector, which means rural agriculture and related occupations. The informal sector is also a priority for the small, vulnerable island countries (group 2), but with special emphasis on delivering services to remote places and outer islands. Financial sustainability is another major challenge for this group, i.e., making TVET systems affordable in some countries (Tuvalu) and reducing dependence on external financing in others such as Kiribati, RMI, and FSM. Where possible, people should be trained to enable them to migrate at higher wages than if they had received no training. The top priorities for the “advanced” island states are expanding training for the wage sector and filling of vacancies generated by emigration. Two areas have shared priorities across all groups—quality improvement and organizational development. Within quality improvement, the principal means is by establishing NQFs. These are specially important in countries that export skilled labor. Throughout the region, organizational development requires establishing or strengthening apex training organizations.

A guide for TVET decision makers is presented in Chapter 5, and is aimed at achieving economic relevance, quality improvement, better access and equity, organizational and management effectiveness, and internal efficiency.

Chapter 6: Conclusions and Recommendations from the Analysis

Chapter 6 presents the main findings of the review, along with an extended set of recommendations. The following five are singled out as the most important:

- The informal sector is the dominant segment of the labor market in most PICs and is where most school-leavers will have to find employment. Training for the informal

sector must be the top priority. This means sufficient new resources should be allocated for informal sector training, training strategies designed, and capacity built to support the rural and informal sectors, in part by boosting the technical expertise and delivery capacity of NGOs.

- Many issues in TVET derive from inappropriate and unclear organizational structures. Getting the structure right is, therefore, the first step to more effective TVET systems. Where possible, TVET systems should be governed by apex organizations such as national training authorities. These apex organizations should be based on partnerships among stakeholders and driven by those who represent demand for skills (i.e., employers). Apex organizations should have the executive authority to link training supply with demand; to coordinate providers; to set priorities, policies, and directions; and to allocate resources.

- Choices about where to invest in skills development should be based on evidence of cost effectiveness. Enterprise-based training should be expanded, e.g., apprenticeships and institutional training needs to be closely linked with the labor market. Investing in “vocalization of secondary education” is not supported by this review, except for the smallest countries with a single secondary school. Vocationalization is expensive, difficult to do well, and usually fails to confer better labor market outcomes for graduates. Instead, resources should be allocated to intensive stand-alone training programs well grounded in the labor market and should target those who are in, or about to enter, the labor market.

- Quality in skills development requires three elements: standards, sufficient inputs, and measurement of outputs against those standards. Developing occupational standards should be pursued through the design of NQFs, if NQFs focus on outputs (competencies) rather than inputs (courses required) and avoid complexity. Minimum standards should be set for public TVET institutions and should be subject to accreditation and periodic quality audits. Second, output indicators should be defined and measured against the standards. Information on the impact of training should be developed, e.g., tracer studies of graduates, and factored into training policies and resource allocations.

- Current incentives in PIC-TVET systems result in inertia. Budgets are given year after year regardless of performance. This review recommends that incentives be changed for those managing skills development. Managers of training institutions should be given authority through devolution, along with accountability for results. Results should be compared against targets and budgets should be allocated according to performance. At the same time, managers should be enabled to develop their capacities through in-service management development programs.

Tackling the reforms outlined above would justify substantially increased public and private investment in skills development.

Chapter 7: Regional Technical and Vocational Education and Training Project Proposals

Five regional projects that respond to the conclusions and recommendations—three for formal TVET, and two for informal sector training—are proposed. The underlying rationale is that priority activities, which are too small and unfeasible on a country level, could be carried out better on a consolidated, regional level. The five proposed regional projects focus on interventions that are likely to widely impact on skills development in the region.

The five proposed regional projects are:

- **Strengthening TVET organization and management** – This includes developing TVET apex organizations; labor market information and tracer systems; TVET information systems; management expertise, policies, and plans; and quality assurance systems (monitoring, accreditation, and certification). This would be implemented by PATVET through the Secretariat of the Pacific Community (SPC) by means of workshops, study visits, and expert advice.

- **Creating a capital development and innovation fund** – The fund, designed to help counter chronic underfinancing of TVET, aims at improving TVET quality by stimulating innovations from the grassroots—the training institutions themselves. TVET institutions with worthy projects that meet specified criteria will apply to the fund for financing. Priority will be given to smaller, vulnerable island states and land-rich, low-income countries. PATVET will operate the fund under SPC.

- **Expanding service delivery through open and distance learning** – This project will enable vulnerable people who cannot otherwise have access to skills formation to acquire marketable skills through unconventional means. Specifically, the project will expand FIT's franchise and distance-teaching programs beyond the Fiji Islands.

- **Strengthening TVET programs in rural areas** – NGOs are instrumental in delivering nonformal education in the rural and informal sectors. However, their ability is often weak to identify needs, or to design and deliver effective market-oriented programs. NGO capabilities would be strengthened through the introduction of relevant training methodologies used successfully elsewhere and staff development. The project will disseminate such methodologies through regional training and national pilot projects.

- **Developing outreach training in atoll economies**—The purpose is to develop cost-effective and sustainable approaches to providing skills training in the outer islands of atoll economies linked directly to local employment and income-generating opportunities. The project will do this through the analysis, design, and testing of alternative delivery mechanisms for short-cycle skills development in four participating countries (i.e., Kiribati, FSM, RMI, and Tuvalu).

Introduction



Overview

A nation's economy runs on the knowledge and skills of its people. The requirements for skills evolve and deepen with external investment, technological advances, and global linkages. People, in turn, need to acquire skills to be productive and to earn a living. A majority of the population in many Pacific island countries (PICs) live in rural areas and work in the informal sector. Education development in PICs, as in other developing countries, cannot be limited to basic education. As countries develop and the demand for people with more advanced skills expands, the returns from higher levels of education increase. Students who complete basic education seek opportunities for further learning and skills development. Many want to continue their general education in upper secondary schools. Others want to enter technical and vocational programs. All need to be prepared to pursue their education throughout their working life. Countries need to facilitate skills formation through various ways to raise productivity and incomes.

Skills development is becoming a priority for countries in the Pacific, particularly as they progress toward meeting the Millennium Development Goals for basic education. Increasing numbers of entrants to the labor market—i.e., the surging numbers of youth who have completed formal schooling yet lack practical skills that are useful in the labor market—fuel, in part, the concern for skills formation.

Skills formation has also become a priority in countries of the Pacific where skills shortages exist owing to job growth and emigration. Making technical and vocational education and training (TVET) work requires a realistic understanding of labor markets and the population to be trained, and the generation of new approaches.

Rationale for Skills Development

A starting point for this review is to address the question: What is the purpose of TVET and skills development? Are the aims mainly political and social, as some suggest—reducing youth unemployment, serving academically less able students or changing youth aspirations? Alternatively, is the purpose economic—that is, to enhance performance in the workplace? This review starts from the view that economic and equity objectives are paramount. Training must serve wage employment or self-employment, including income generation and livelihood development. Experience shows that social objectives for training have generally not been cost effective.¹ Consequently, training is treated from an economic perspective throughout this review, with a focus on jobs for the wage economy or informal sector, with equity as a parallel concern. Political and social objectives of training may have their valid uses, but are not a primary focus of this review.

Why is skills development important from an economic perspective?² Several reasons are centered on productivity and incomes.

¹ Middleton, Ziderman, and Adams. 1993.

² For details, see Johanson (2004) and ADB (2004).

- **Productivity.** Skills enable individuals to be more productive and generate higher incomes. Workforce skills make enterprises more productive and profitable. Skills help national economies raise production and create wealth. When people acquire skills, they make themselves more productive, that is, able to produce more output for a given amount of time and effort. This applies both to wage employment and self employment in the informal sector.

- **Skills and poverty reduction.** Skills development for the informal sector should be at the center of pro-poor strategies,³ for reasons of economy and the environment. First, acquiring skills is crucial to raising productivity and incomes in the informal sector,⁴ where most new jobs in Pacific economies are being created. Training alone cannot guarantee employment or reduce poverty, but improved skills and knowledge are essential for the poor to access decent work or add value to existing subsistence employment. Second, evidence is mounting that skills training is essential for promoting sustainable livelihoods in the Pacific, where environments are fragile and informal economic activities often need suitable techniques and practices for resource management.⁵

- **Skills–physical capital complementarities.** Human capital (people’s skills and abilities) also help determine the amount of investment in physical capital in an economy. Skills and physical capital complement each other. A higher level of human capital enables plant and machinery to be used more efficiently, thereby raising the rate of return on investments. Similarly, insufficient investment in human capital skills leads to deficient investment in physical capital and hobbles economic growth.

- **Technological and structural change.** The acceleration of technological change requires higher-skilled workers. When people acquire skills, they generally also make themselves more adaptable. New technologies are knowledge and skill intensive, and impose a need to train people. Countries with skills can adjust more effectively to the challenges of structural adjustment because enterprises are more flexible and better able to absorb new technologies.

- **Changes in work organization.** Demand for skills within enterprises depends on how work is organized. Enterprises traditionally organized work around assembly-line methods that broke each task into its most elementary components and minimized the skills and training required. However, increased competition and the introduction of information and communication technology (ICT) have prompted many firms to undertake fundamental changes in their internal organization and work practices, including

3 For an early discussion of such strategies in the context of TVET reform, see Bennell (1999). For a more recent assessment of the role of skills development in poverty reduction, see King and Palmer (2006).

4 ILO. 2003.

5 Tyler. 2006. See also Pound et al. 2003. Perhaps the most extensive and up-to-date information resource on sustainable livelihoods is the livelihoods connect on-line forum of the Institute of Development Studies, University of Sussex, United Kingdom. Available: www.livelihoods.org.

changes in factory layout, flow of production, quality assurance, and use of inventory. High-performance work organizations typically use self-managed work teams, multitasking, job rotation, and cross training with devolution of decision making. These changes can only work if employees acquire new technical skills.

- **Trade openness, competition, and foreign direct investment.** Globalization places a premium on skills. Economic openness causes a demand shift in skills through induced capital deepening and technological change. Globalization raises capital flows that, in turn, raise demand for skilled labor. Skills establish a pull factor for foreign direct investment. Alternately, lack of human capital may deter foreign investment. Thus, the skill level and quality of the workforce will increasingly provide the cutting edge for successful international competition.

- **Effect of skills shortages on productivity and wages.** Skills shortages add to the cost of employing skilled workers since a firm must wait longer than usual to fill its vacancies and loses productivity during that period. Firms may substitute unskilled for skilled labor, thereby reducing productivity. Additionally, skills shortages improve skilled workers' outside options, contributing to poaching, job turnover, and wage increases unrelated to productivity.

In view of the economic importance of skills, a central issue for countries is therefore how to improve training systems and raise skills.

Background

In 2001, the Pacific Islands Forum Education Ministers developed the Forum Basic Education Action Plan, which covered a broad range of areas in formal and informal education including skills development. The action plan refocused skills education to support the private sector's needs for trained workers. In April 2004, the leaders of the Pacific Islands Forum endorsed in their Auckland Declaration the development of a Pacific Plan for "deeper and broader" regional cooperation. The Pacific Plan emphasizes the importance of strengthening vocational and technical training and its links with the labor market.⁶ Similarly, one strategic objective of the education and training sector strategy of the Asian Development Bank (ADB)⁷ is to formulate education strategies that are relevant and responsive to national development objectives and client needs. ADB identified the need for implementing a regional technical assistance (TA) project for its Pacific developing member countries (DMCs) in collaboration with the Pacific Islands Forum Secretariat

⁶ Pacific Islands Forum. 2004 and 2005. The Pacific Plan (2005) assigns importance to improved education and training. Under sustainable development, the plan calls for the following as an immediate priority: "Investigation of potential for expanding regional TVET programs to take advantage of opportunities in health care, seafaring, hospitality/tourism, peacekeeping, etc; for enhancing and standardizing regional training programs; and ensuring the portability of technical qualifications."

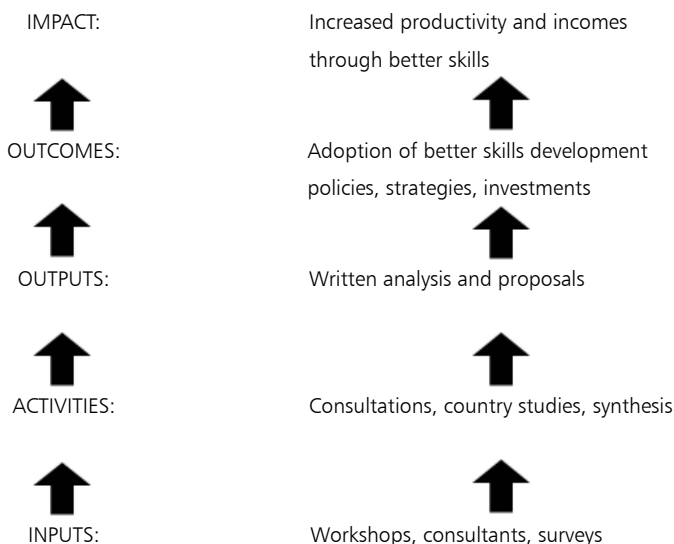
⁷ ADB. 2005.

(PIFS). The TA was approved by the ministers of education of the Pacific Islands Forum during a meeting on 23–24 May 2005, in Apia, Samoa, and was subsequently approved by the ADB Board in November 2005. This approved TA is for the implementation of the Pacific education strategy, which is skills development or less clumsily known as the regional technical assistance on skills development.

The study aims to achieve increased productivity and incomes through more effective public and private investment in skills development. The immediate outcome envisaged is strategies for skills development with equity that are responsive to the emerging demands of economies and local communities in both formal and informal sectors. Three broad outputs were planned for the study.

- An assessment of the relationship between skills development and economic development, labor market demand, and outward migration within the sample countries.
- Policy options for skills development that governments of Pacific DMCs may wish to consider based on an in-depth analysis of issues and alternatives.
- Based on the assessment and the options, identifying project concepts at the national and regional levels for skills improvement and income generation.

Figure 1: Purpose and Objective of the Study

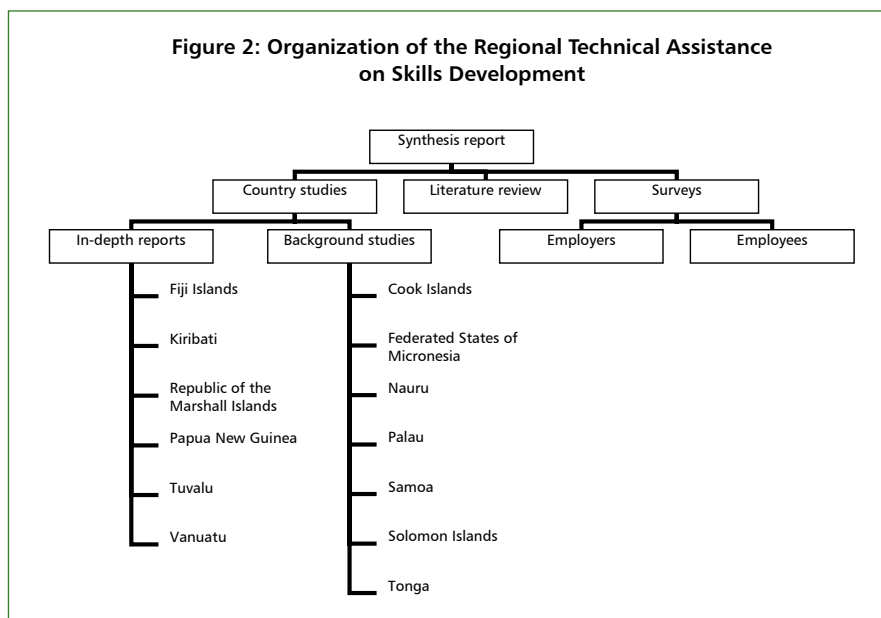


Scope, Audience, and Financing

The scope of the review technically covers all aspects of TVET below degree level and in all sectors except health.⁸ Geographically, the regional technical assistance on skills development covered all 13 Pacific DMCs that are PIFS members.⁹ The main audiences for the review are policy makers in Pacific governments and TVET practitioners. Development partners in the region constitute a secondary audience. The Japan Special Fund, funded by the Government of Japan, made a grant of \$975,000 for the implementation of the study.

Organization of the Study

The regional TA comprises four main components—country studies (seven background reports and six in-depth reports); a literature review; surveys of employers and employees; and a synthesis of all the findings into one report, as presented in this publication. (References are listed in the bibliography at the end of the main text.) The following diagram shows the organization of the regional TA.



⁸ The Pacific Islands Forum Secretariat in this sector excluded health because of separate analytical work underway.

⁹ Cook Islands, Fiji Islands, Kiribati, FSM, Republic of the Marshall Islands (RMI), Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

ADB implemented the project and PIFS was the executing agency. The work started with an initial workshop, held on 31 May–1 June 2006, attended by stakeholders, and was continued with guidance from periodic meetings of an advisory steering committee made up of representatives of international organizations based in Suva. A concluding review of the draft synthesis was made at a workshop attended in early May 2007 by 20 Pacific island country (PIC) representatives from 10 countries and regional organizations.

Uniqueness of the Review

This review has brought unique contributions to bear on skills development in the Pacific. It is the first systematic review of TVET systems in most of the countries; it carried out the first comprehensive literature review of skills development in the region; and it included the first comprehensive survey of employers and employees on skills requirements in 12 Pacific countries. Finally, it makes the first synthesis of analysis and prescriptions of TVET in the region.

Limitations

The review marked the first time that TVET systems had been analyzed in several countries in the region. It also has the first comprehensive literature review and the first regional survey of employers and employees. In addition, in view of the regional knowledge base on TVET, the review represents the first comprehensive analysis and synthesis of TVET in the region. However, the study has limitations. It is “macro”—aimed at a broad-brush overview of TVET systems. It was not possible to carry out a “micro,” or detailed, review, e.g., of TVET curricula. The fieldwork for the six in-depth country reports was limited—lasting from one week (Tuvalu) to 17 days (PNG). Individual local experts in the countries produced the seven background country reports. The survey of enterprises by correspondence yielded a relatively low-response rate (15% overall), and not all countries took part (enterprises in Vanuatu, for example, did not respond).

Finally, data limitations were encountered throughout the work. The literature review found a paucity of information in three areas: labor market, the lack of reliable and comparable statistics made it difficult to compare and contrast the experiences of different PICs in employment and skills shortages; informal sector and nonformal training, the literature is thin in the entire region, and data were available only for the Fiji Islands and Solomon Islands; and evaluation of TVET policies and systems at either the country or regional levels, there is essentially no literature.

Similarly, writing the background and in-depth country reports met obstacles, including a lack of information about the performance and operation of TVET systems, such as flow statistics (dropout/repetition), and expenditures and outputs (graduate performance on tests and in the labor market). These gaps underscore the importance

and timeliness of the current review. Several examples of good practice were identified in the review, and these are presented in the text.

Key Questions

The review set out to answer the following questions:

1. What is the balance between supply and demand for skills in the labor market? Unmet demands can lead to bottlenecks that impede growth. Oversupply can lead to unemployment and waste of scarce resources.
2. How can economically relevant supply of skills be built?
3. Where should training be provided? What is the most effective mode of training?
4. How can training quality be improved?
5. Who should be trained, and are they being trained?
6. How should skills development be organized?
7. Who should pay for training and how can resources be used more efficiently?
8. What are the priorities for training by country group?
9. What interventions could make a broad impact on skills development at reasonable cost?

The answers to these questions are summarized in Chapter 6.

Organization of the Report

The review is presented according to the following sequence: Socioeconomic Background (Chapter 1); Skills Gaps in the Labor Market (Chapter 2); the Landscape and Architecture of TVET (Chapter 3); Analysis of TVET Systems in the Pacific (Chapter 4); Priorities and Strategic Options (Chapter 5); Conclusions and Recommendations from the Analysis (Chapter 6); and Regional TVET Project Proposals (Chapter 7).

The reader seeking just the main findings without the detailed background should look at the chapter summary (above) and Chapter 6.

The publication starts by explaining some defining characteristics of countries in the Pacific (Chapter 1).

1

SOCIOECONOMIC BACKGROUND COUNTRY TYPOLOGIES¹



Overview

The diversity of the region and the different stages of and prospects for development suggested grouping the countries for purposes of analysis. Three categories are presented: group 1: land-rich, low-income countries—Papua New Guinea (PNG), Solomon Islands, and Vanuatu; group 2: small, vulnerable island states—Kiribati, Republic of the Marshall Islands (RMI), Federated States of Micronesia (FSM), Nauru, and Tuvalu; and group 3: “advanced” island states—Cook Islands, Fiji Islands, Palau, Samoa, and Tonga. The countries in group 1 have low social and economic indexes, but positive agricultural potential. The vulnerable island states, group 2, face severe economic constraints, few economic prospects, and issues of sustainability. Countries in group 3 have relatively good prospects from tourism, remittances from abroad, and emigration.

Introduction

The Pacific island region covers a third of the earth’s surface and has more than 550 inhabited islands. The 13 countries in the study—here termed as Pacific island countries (PICs)—support an immense biodiversity and a substantial base of natural resources. This resource base includes fish, timber, agricultural products, and minerals, as well as limited reserves of oil and gas. Many of the countries are vulnerable to natural disasters, such as cyclones (the Fiji Islands and Samoa), flooding (the Fiji Islands), earthquakes (Solomon Islands and Vanuatu), and volcanic eruptions (PNG and Vanuatu). The effects of rising sea level concern low-lying atoll states such as Tuvalu. Coastal areas of all Pacific countries, and especially atolls, are at risk from tsunamis.

The United Nations classifies all 13 countries included in this study as small island developing states, while Kiribati, Solomon Islands, Tuvalu, and Vanuatu are also classified as least-developed countries. The 13 countries in the study are extremely diverse in resources and stages of development. Indicators clearly show the diversity, including total population, population density, secondary school enrollment, per capita gross domestic product (GDP), and weight of the informal sector. For purposes of analysis, it is useful, therefore, to arrange the countries in groups with similar characteristics to understand the different challenges that each group faces.² As shown in the map, the 13 countries are grouped into the three categories given above. Appendix 1 compares and contrasts the three country groups according to various social and economic indexes.

¹ Most of this chapter is derived from the Voigt-Graf literature review (Voigt-Graf 2007b).

² The groupings are made only to facilitate analysis. They conceal the considerable variations among the countries within each group. Indeed, countries could be placed in different groups (e.g., Palau in the small, vulnerable category because of its heavy dependence on financing from the United States). The Fiji Islands could be placed in the land-rich states with agricultural potential because of its agricultural land and its expanding workforce in the informal sector. Tonga could be considered a small, vulnerable island state because of problems of youth unemployment.

Map of Pacific Island Countries by Category



Source: Pacific Islands Forum Secretariat

Group 1: Land-rich, low-income countries with low social and economic indexes, but positive agricultural potential

The three countries in this group (PNG, Solomon Islands, and Vanuatu) account for the bulk of the population in the 13 countries. They are characterized by large land areas, low population densities, high population growth, low per capita incomes, and a high proportion of the labor force in the rural subsistence sector characterize them. Educational and health indexes are among the lowest in the region, but they are improving. The economies are dual, comprising a narrow formal, corporate-based economy and a large informal economy where subsistence farming accounts for the bulk of economic activity. Exports are mainly commodity based. A lack of management skills has hampered the development of an entrepreneurial class, at least in PNG.

Each country is different. PNG has a significant mining sector that provides substantial public revenue. Vanuatu has a successful and expanding tourism industry and attracts expatriates who wish to invest in real estate. Solomon Islands has recently suffered from political instability and has an economy that is largely dependent on logging, agriculture, and fishing. In common with other PICs, these countries face substantial

constraints on economic advancement because of high transport costs.

Only a small fraction of the labor force is involved in paid work. Skilled labor is in short supply in some trades and technical professionals.

Growth in formal sector employment in PNG depends largely on the mining sector, which generates jobs in many other sectors. Similarly, Vanuatu's growing tourist sector generates some secondary employment. While both countries have sectors that generate foreign exchange, the share of formal sector employment is small compared with those in other PICs. Moreover, population growth is expected to outstrip growth in formal employment.

Informal Sector

PNG and Solomon Islands are experiencing problems with the unplanned expansion of urban and semi-urban communities, which has led to crime, urban squalor, and public health risks, among other problems. Given the limitation of the formal sector to accommodate this burgeoning urban population, the informal sector has acted as a sponge in soaking up a significant portion of various vending activities. The majority of the population is involved in subsistence living or earning an income from agricultural activities.

As rich agricultural countries, a significant range of livestock, nuts, vegetables, fruits, and other crops are produced. Different regions, because of climate, have their specialties such as vegetable production in the Western Highlands of PNG. Timber and small-scale fishing, including aquaculture, are also important subsistence activities.

Women are important players in the informal economy in the countries of this group. Key informal sector activities are the processing and marketing of agricultural products. Processing activities include timber milling and preparing betel nuts, coffee, copra, cocoa, and palm oil (PNG). Services include carpentry. Other activities are transport, small retail outlets, open-air vendors, and kava bars (Vanuatu). Handicraft and sewing items are also produced. In PNG, these are more likely to be undertaken in urban rather than rural areas.

These nations have substantial employment potential in the subsistence and informal sector. However, the allure of urban living with close access to many services such as education and health is making rural living unattractive. Consequently, while subsistence opportunities are available, people do not usually choose them. Many people come to urban centers such as Lae, Port Moresby, and Honiara in search of a preferred lifestyle, giving rise to unemployment, specially among the youth.

Prospects

The principal challenge is that the wage economy cannot generate enough jobs to employ all those entering the labor market each year. Labor market entrants have no choice

but to live and work in the informal economy. The solution to employment problems in PNG, Solomon Islands, and Vanuatu can only be found in the rural economy. Therefore, the focus for employment for the bulk of the population should be on promoting productivity growth in agriculture. Fortunately, the prospects for agricultural development are favorable in these countries, but institutional changes and improved training and management systems are required.

In these three countries, a rise in agricultural skill levels can help increase agricultural productivity in both the subsistence and commercial sectors. Opportunities exist for skilled workers specializing in the production of agricultural niche products such as vanilla, ginger, nangai nuts, and honey. Modernization and diversification of agriculture creates demand for skills in horticulture, floriculture, vegetable production, and beekeeping, among others. Moreover, farmers need to be trained in business skills to run profitable farms.

Small-scale economic development in rural areas has a potential if the agricultural sector can diversify. Local markets are untapped for vegetables, poultry, pork, and other farming products, and there is potential for timber processing and the development of other natural forest products as well as ecotourism and traditional crafts. For example, in Vanuatu, the relative abundance of natural resources and a significant room for agricultural expansion provide hope for substantial opportunities for increased cash employment in rural areas. The bulk of offshore marine resources also remain to be exploited in the Solomon Islands and Vanuatu.

Aquaculture demonstrates some potential, including prawns (Solomon Islands) and freshwater fish (PNG). In addition, the tourism industry has substantial potential for expanding and generating employment, particularly in Vanuatu. Solomon Islands desperately needs skilled labor to reestablish its tourism industry. Construction activity is forecast to grow because of increased investment in transport infrastructure, especially in PNG.

Group 2: Small, vulnerable island states with severe economic constraints, few economic prospects, and issues of sustainability

Fragile island states in this group (Kiribati, RMI, FSM, Nauru, and Tuvalu) are characterized by low population (between 10,000 and 100,000), high population density in urban areas, large public sectors, relatively good education and health indicators, and high dependence on external assistance. Atolls in these countries, except the FSM, share tight constraints, including small and limited land and agricultural areas; have widely scattered and sparsely populated islands yet overcrowded main islands; are isolated from world markets and have high internal transportation costs; have atolls with low elevations; have few natural resources and extremely infertile soils; are highly dependent on imports; have

large and continuous trade imbalances (in Tuvalu equaling half GDP); have large public sectors with low productivity; have weak fiscal status; have small, underdeveloped private sectors and limited business opportunities in the domestic economy; have inadequately skilled workforce and high levels of underemployment in the labor force; and have social and cultural systems with limited experience of business concepts and practices.

Some countries such as Kiribati, FSM, and Tuvalu derive a large part of their revenues from fishing licenses and, in the case of Nauru, phosphate mining. Most formal employment opportunities are in sectors where there is little growth, such as the public sector. Subsistence agriculture and fishing are the main economic activities in Kiribati and Tuvalu. The labor force is concentrated in the services and public sectors. All states in this group tend to be dominated by a large public sector and weak private sector. In the RMI, for example, over 80% of government revenue derives from United States (US) grants. This heavy reliance on government may not be sustainable given limited budget resources³ and the vagaries of funding policies. These are mainly labor-surplus economies that lack any significant economic activity.

All these nation states are vulnerable owing to limits on generating exports. The major export product, apart from fish processing, is copra. Short-term prospects for economic activity and employment are determined by externally funded projects and subsidies. With rapid population increases, youth unemployment is likely, except for the countries with ready possibilities of emigration (i.e., the RMI and FSM). Nauru is characterized by a bottom-heavy labor market with an excess of unqualified and unskilled workers. This is the consequence of past government neglect of education and training during the years of high income from phosphate mining.

Informal Sector

The informal sector in fragile island states comprises subsistence agriculture/gardening, small-scale fishing, processing of products, handicraft, building/artisan activities, transport, and sales. With infertile soils, there are limits to agricultural production in atoll societies, resulting in a restricted range of products being grown. Subsistence agriculture consists generally of cultivating coconuts; collecting coconuts and toddy; breeding pigs, chickens, and ducks; and growing a range of garden crops, which generally include varieties of taro and sweet potato, and vegetables such as cabbage, pumpkin, tomato, and cucumber. People grow a narrow range of fruits, mainly papaya, bananas, pandanus, breadfruit, and *Morinda citrifolia* (for noni juice). Fishing usually involves catching

³ The migration, remittances, aid, and bureaucracy (MIRAB) model, summarized in Voigt-Graf (2007b, II.4), views island economies not as resource-based economies, but as rent-based, where income is generated not from productive activity, but from remittances and fund flows. MIRAB countries depend on migration, which stimulates substantial remittances, and significant fund flows. External financing that leaves no residual debt is a key to the economic performance of small islands.

wild populations by using small craft such as outriggers, but can also include a level of aquaculture. For example, in Nauru, small fish are caught in the sea and then reared in a lagoon's brackish water. In Kiritimati (Kiribati), seaweeds are cultivated in the lagoon.

Processed products include kamaimai, a syrup; toddy, an alcoholic beverage from a coconut's flower sap; noni juice; and preserved fish and preserved fruits, such as pandanus. Copra, an important cash crop, is produced from husked coconuts. Handicrafts generally include mats, bags, and ornaments using local materials but can also include some sewn products. A key artisan activity is house building, often with local materials. Another is small motor repair (e.g., outboards). Products derived are then offered for sale in small markets.

A breakdown of participation in informal sector activities in Tuvalu provides an overview of the importance of different activities of subsistence living in atoll societies. In a survey of households, 36% were found to be involved in agriculture; 66% in fishing; in raising hogs, 80%, chickens, 52%, ducks, 18%; and 38% in handicrafts.

Prospects

As with group 1, economic growth falls far short of generating sufficient new jobs for labor market entrants each year. For example, Kiribati produces an estimated 2,000 school-leavers for the labor market each year, competing for about 500 job openings in the formal sector. However, unlike group 1, agriculture generally is not an option—except in the FSM—because of limited land, poor soil, and restricted land ownership. Instead, commercial fisheries and tourism have been identified as crucial sectors for the long-term development of small island economies.

Given the small size of these countries, their geographic remoteness, and fragmentation (except in Nauru), the fisheries sector is one of the few sectors offering realistic growth potential. As many as 45,000 Pacific Islanders may be involved in commercial fishing, excluding processing. In countries with commercial fish processing, the increase in fisheries-related employment is remarkable. The fisheries industry requires monitoring of fishing and shipping activities and experts in fisheries management and sustainable management strategies to maintain international competitiveness. Expatriates currently provide much of this specialized labor.

Growth in tourism—the only other potential means for income generation—is not guaranteed, given the intense competition from established tourist destinations, especially in terms of travel costs.

Some islands in this group have an escape valve against the pressures of growing unemployment—emigration. Citizens of the RMI and the FSM have ready access to the US labor market in Guam, Hawaii, and mainland US. However, emigration does not seem to benefit the sending countries in terms of remittances, unlike the island states

in group 3. Dependence on external foreign funding makes the countries in the group vulnerable to fluctuations in policy. A major goal is to develop the private sector to allow workers to have alternative sources of employment, and to sustain development in view of reductions in US support that are scheduled to start in the RMI and the FSM in 2009. In Kiribati and Tuvalu, the challenge is to counter diseconomies of scale in providing essential services to the population, including remote populations in the outer islands. Seafarers contribute a significant share of GDP in Kiribati and Tuvalu. Several small island states also have trust funds that contribute to their economies such as Kiribati, RMI, FSM, Nauru, and Tuvalu.

Group 3: “Advanced” island states with relatively good prospects from tourism, remittances from abroad, and emigration

The “advanced” island states—i.e., Cook Islands, Fiji Islands, Palau, Samoa, and Tonga—are solidly at the middle-income level. They are characterized by relatively high per capita incomes, strong private sectors, well-developed commercial agriculture, and extensively developed tourist industries. Tourist arrivals in 2003 were about 430,000 for the Fiji Islands and between 40,000 and 92,000 in the other countries. Tourism employs a relatively high proportion of the labor force, from 10% in the Fiji Islands to about 20% in the other countries. These countries have the highest proportion of working people in formal sector employment. Compared with other PICs, they engage a higher share of employees in manufacturing and smaller shares in public and community services. Agricultural exports account for a large proportion of total exports.

Rates of labor emigration are also relatively high, creating significant job vacancies in many of the countries. Skilled labor shortages are typical of this group. Remittances from emigrants abroad can account for substantial income, for example, 30% of Samoa’s national income in 2005. An important factor hindering economic growth in the Cook Islands and the Fiji Islands is the persistent shortage of skilled middle- and high-level human resources at the going rate of remuneration in the labor market. Importation of skilled labor is common.

The countries in this group are relatively well-off in terms of per capita income. Population growth rates are relatively low and even negative in the Cook Islands. The combination of these two factors means that the wage economy is likely to generate enough new jobs to accommodate growth in the labor force in the Cook Islands and Samoa, but not in the Fiji Islands and Tonga where increases are expected in informal sector employment or unemployment.

Informal Sector

All states in group 3 have significant shares of the population engaged in agricultural

and fishing work. However, the informal sector is not as well developed as in the other two groups. Data are limited, but suggest that informal sector workers in the Fiji Islands constitute 36% of the economically active population.

Informal sector work for urban areas is predominantly for transport and street vendors. Like other countries, informal work in rural areas is concentrated in home-based products such as food processing. The rural areas of the Fiji Islands also have carpentry electrical, and automotive mechanic services, among others. A survey of small ventures in Samoa showed that 63% were involved in transport, 24% fisheries, 9% in the retail trade, and 4% in other activities.⁴

The informal sector in the “advanced” island states is important for the processing and marketing of agricultural products. In urban areas, the informal sector is largely a marginal activity that links poorly with the modern sector.

Prospects

Opportunities in the commercial agricultural sector are growing and the demand for skilled agricultural labor is high. In Samoa, agriculture remains the primary area of employment. In the Fiji Islands, the restructuring of the sugar industry requires sugarcane farmers to be trained in alternate livelihoods including greenhouse production, floriculture, and horticulture. Commercial agriculture has the potential to expand by forging closer links with the tourism industry and supplying tourist resorts with vegetables and fruits that are currently imported. To take advantage of this potential, farmers need to be trained in modern production techniques; agricultural extension services need to become more effective; and the demand for managers who can help build the linkages between agriculture and tourism should be met.

Aquaculture—the world’s fastest-growing food production sector—is also experiencing increasing labor demand. Its key commodities include black pearls (Cook Islands and the Fiji Islands) and prawns (Fiji Islands). Most skilled workers in these industries are expatriates, but there is considerable scope for localization of this labor, provided the skills are available.

Tourism is an important industry in these five countries. Yet, there is shortage of people able to work in higher positions—particularly managerial—and of high-quality chefs, cooks, bar people, waiters, and even housekeepers. This has gone so far that in the Cook Islands, a growing proportion of foreign workers are hired for lower-skilled positions such as housekeeping, as tourism’s expanding labor requirements cannot be met by locals.

4 Samoa Ministry of Commerce, Industry, and Labor. 2001.

The biggest challenge in this country group is the quality of skills, which often need to be raised to international standards. International migration may have payoffs in reduced rates of domestic unemployment and remittances from abroad, but it also entails losses—skill losses for the economies and financial losses for the government in the form of lost investments in education, training, and health. The cost-benefit analysis of migration is different in each case and depends on the skill level of migrants and the duration of migration.

Chapter 2 examines skill requirements and shortages in greater depth across Pacific island economies.

2

SKILLS GAPS IN THE PACIFIC

<u>TALIDIG VOCATIONAL CENTRE</u>	
<u>2006 ENROLLMENT OF STUDENTS.</u>	
<u>YEAR ONE MALE STUDENTS x SECTION:</u>	
1 Carpentry Section	= 20
2 Mechanic Section	= 30
3 Welding Section	= 30
Subtotal = 80 students	
<u>YEAR TWO MALE STUDENTS x SECTION:</u>	
1 Carpentry Section	= 25
2 Mechanic Section	= 30
3 Plumbing Section	= 20
Subtotal = 75 students	
<u>TOTAL OF MALE STUDENTS</u>	= <u>155 Students</u>
YEAR ONE FEMALE STUDENTS	= 25 students
YEAR TWO FEMALE STUDENTS	= 20 students
<u>TOTAL OF FEMALE STUDENTS</u>	= <u>45 Female students</u>
<u>GRAND TOTAL</u>	= <u>200 students</u>
Boarding Students	= 180 students
Day Students	= 20 students.

Overview

Most PICs have limited formal employment opportunities for their expanding populations. Growth of the labor market far exceeds job growth in most PICs. This means most new entrants will have to be self-employed in the informal sector.

Ironically, formal sector employment opportunities are limited, but skills shortages are widespread across the PICs. Three main factors are responsible: growth in mining and tourism, emigration, and inadequate output or quality from the TVET system.

Growth in the mining sector in PNG and in tourism in the Cook Islands, Fiji Islands, Samoa, Tonga, and Vanuatu has created a rising demand for skilled labor, especially in hospitality- and construction-related occupations. These countries do not have enough people with the skills required—particularly in management/supervision and trades occupations—who are capable of working on par with international standards. In addition, emigration exacerbates the skills shortages, as many with skills leave for better-paying jobs elsewhere. Hence, the local supply of appropriately skilled labor is unable to keep pace with the demand.

The supply of appropriately skilled labor in PICs depends mainly on output from the TVET sector. However, there appear to be too few TVET graduates in key fields and the performance level of TVET graduates is below that expected in the workplace. TVET systems are unable to provide a sufficient supply of graduates with adequate performance levels. Industry, in turn, has adjusted by employing lesser-skilled staff and providing internal training.

The informal sector in the Pacific is largely limited to the processing and merchandising of primary produce; providing services, such as carpentry and mechanical repair, transport, and small-scale vending; and producing and selling handicrafts and sewn materials. Skills gaps occur in all these activities (as shown in Appendix 3). Small-scale fishing and other primary production provide the only real opportunities in the vulnerable island states, and greater agricultural production in the land-rich states. Moreover, the youth closest to urban centers aspire to an urban rather than a rural livelihood, often with unrealistic expectations.

Emigration

Emigration is a key factor in skills shortages in the PICs. Limited opportunities in the formal sector and a lack of appeal for subsistence and informal sector employment have led many people to look for another solution, that of emigration. This option is readily available for some countries but not for others. Emigration has some effects that are generally perceived as positive, including: remittances to the source country (see Voigt-Graf 2007b; Table 13); possibilities of migrants returning home with new ideas, skills, technologies, and capital; releasing jobs in the local labor market, thus, potentially

reducing unemployment; and increasing incentives for families to invest in education and training. However, it can also drain the source country of those with needed skills and work experience.

As a solution, emigration enables the émigré an income that generally exceeds that obtainable in the country of origin. Most people prefer to stay in their country of origin with family so that a significant economic incentive is required to emigrate. For people with formal sector jobs and adequate income, the necessity to emigrate will be much less than for individuals with low income. Increasingly however, as the benefits of foreign living such as substantially higher salaries, access to health services, and the availability of significant education opportunities for children become popularized, the allure increases.

Emigration has become a major labor market factor in most PICs except for group 1 countries. The host countries are generally Australia, Canada, New Zealand, and US. Emigration can be long term, where the individual takes up domicile in a host country and pursues opportunities available there, as either a citizen or noncitizen. It can also be temporary, where the individual maintains domicile in the country of origin but gains periodic work in a host country or on a foreign vessel.

Citizens of Pacific countries have varying opportunities for long-term migration. Under the Compact of Free Association with the US, all citizens of the RMI, FSM, and Palau can work in the US. Cook Islanders have New Zealand citizenship and, hence, the right of domicile there. New Zealand also has migration quotas for citizens of the Fiji Islands, Kiribati, Samoa, Tonga, and Tuvalu. Individuals in Australia and New Zealand whose skills are in-demand can also migrate to those countries. Many skilled Indo-Fijians have migrated there, as well as to Canada. A strong demand for skilled workers in Australia has led to new initiatives in recognizing skills based on Australian national TVET qualifications. One such initiative is the proposed Australia–Pacific Technical College, which will enable citizens of Pacific countries to gain Australian qualifications or recognition of partial completion of Australian qualifications.¹ Achieving Australian national qualifications in demand will enhance an individual's opportunity to migrate to that country.

Short-term emigration is primarily for contracted periodic work on board cruise ships, and fishing and merchant vessels. About 870 citizens of Tuvalu and 1,100 I-Kiribati currently work on board foreign vessels. Given about 3,400 people in employment in Tuvalu and 13,000 in the cash economy of Kiribati, this contracted labor force represents a significant component of the employed labor force in both countries. New Zealand is also testing a recruitment system for up to 5,000 workers from the region, which is for

¹ Australian national TVET qualifications comprise a set of units of competency. Each unit is a specification of a given workplace performance (generally a product or service). Achievement of qualifications is based solely on a person's ability to perform in a workplace, not on the pathway of achieving performance (e.g., attendance at a TVET institution).

short-term labor in horticulture and viticulture. However, this is not expected to require a significant number of workers. Moreover, some opportunities for skilled personnel to gain work in other PICs are also available. At one stage, Nauru offered significant employment opportunities in its phosphate industry.

The impact of emigration on the labor market differs by its duration. Short-term emigration results in the skills remaining within the country of origin. However, since most skills (e.g., maritime/fishing skills) are primarily of use outside the country, the benefit of having these skills is of minor importance in the country of origin. In the case of long-term migration, a substantial skilled workforce is lost to the country of origin. This can have a major impact on the availability of local citizens who possess the required skills.

In a survey of employers² in PICs as part of this review, 69% of respondents indicated that emigration is extremely important, very important, or important as a factor in skills shortages (Voigt-Graf 2007a). Responses from employers also showed that the Cook Islands, Fiji Islands, RMI, FSM, Samoa, and Tonga had the highest percentage of employees with critical skills leaving their employment as the consequence of emigration. In the case of the Fiji Islands, 56% of employers gave emigration as the reason for loss of employees with critical skills. Because of emigration, the smaller pool of skilled workers also means fewer qualified supervisors and managers. This can also lead to attrition of qualified TVET instructors. In Tonga, for example, the loss of instructors in refrigeration/air-conditioning and plumbing resulted in courses being discontinued. The Cook Islands, Fiji Islands, RMI, and FSM currently suffer significant shortages of skilled labor because of long-term emigration. The emphasis by Australia on the achievement of Australian TVET qualifications, particularly at the certificate III level and above, generally requires a significant level of workplace experience. Key destinations, such as Australia and New Zealand, place a premium on skills. Conversely, the least skilled do not meet the requirements for migration to wealthy destination countries.

For Compact member countries, emigration affects all parts of the labor force from those who are unemployed, those with limited skills, to the most skilled. For these nations, the TVET system *de facto* serves the labor market of the US. Indeed, the TVET system can play a major role in imparting skills to enable locals to gain better-paying jobs in the US. Access to better-paying jobs can also have the benefit of individuals increasing their skill set. Should individuals return to work in the country of origin, they bring substantial skills with them at little cost to their country. However, differential wage rates of skilled workers between the Compact member states and the US make repatriation largely unattractive from an economic perspective. The labor market of the Compact member states copes with the skills shortages by importing skilled labor from

² All 13 countries were surveyed, but no responses were received from Vanuatu and only a small number of responses were received from Palau (4% response rate) and Nauru (15% response rate).

countries that do not have ready access to the US, such as the Philippines. This ultimately makes it increasingly difficult to find citizens for supervisory and management positions because of a reduced pool of skilled citizens. Apart from Compact member countries, Cook Islands, and Samoa (to a lesser degree), emigration from Pacific countries is largely affecting the most skilled and therefore the most critical for society. A World Bank report on Solomon Islands (2007) commented on technically skilled Solomon Islanders leaving for better-paying jobs in other countries.

Skills Gaps by Country Group

Three key factors account for skills shortages in PICs: sector-specific economic growth, emigration, and the skills supply from the TVET sector. The country reports for this ADB project and the World Bank report on Solomon Islands (2007) reveal substantial skills shortages across PICs. Kiribati and Tuvalu are the only exceptions. Three factors account for skills shortages: job growth created by sector-specific economic activity such as tourism and mining; skill loss through emigration; and the supply/outputs of the TVET system. At one extreme, small fragile island states (group 2) have weak private sectors and little domestic generation of foreign exchange.³ A limited economy means less demand for skilled labor as in Kiribati. At the other extreme, the large states of the Fiji Islands and PNG have stronger private sectors and greater breadth of economic activity. The stronger the economy, the greater is the demand for skilled occupations. For states with a significant tourism industry, shortages occur for hospitality and construction workers because of the continuing construction and refurbishment of hotels and other infrastructure. The recent surge in mining activity in PNG has created a skills shortage among engineering, mining, and construction occupations. As stated above, emigration by itself can create skills shortages as demonstrated in the Compact member states. A combination of economic growth and access to emigration creates even greater skills shortages, as evidenced in the Cook Islands and the Fiji Islands.

The output of the TVET sector is the third factor relating to skills shortages. It interrelates to the other two factors. Key parameters of a strong TVET system include the existence of diverse TVET institutions, the range of programs offered, industry involvement in training, quality benchmarks, and multiple sources of funding. Paradoxically, a weak economy employing only a narrow range of skilled occupations—as in Kiribati, RMI, Nauru, and Tuvalu—can mean a limited or almost nonexistent TVET sector. This, in turn, limits the ability to deal with the ongoing attrition of the workforce. Skills shortages created through economic activity and/or emigration can also give rise to unfulfilled expectations by employers about TVET graduates. Over 80% of the respondents in the

³ Some states earn significant foreign exchange from fishing, but the fishing fleets are largely foreign owned and are crewed by foreign nationals.

employer survey indicated that insufficient numbers of graduates and inadequate quality of the TVET system contributed strongly to skills shortages. Employers naturally expect that TVET graduates can replace skilled workers lost through emigration. However, there can be significant disparities between needed skills and performance of fresh TVET graduates. This can lead to rejection of local TVET graduates in favor of expatriate skilled workers. With emigration, countries face a dilemma in the funding of TVET as it serves as a vehicle for skills formation in destination countries rather than the domestic economy. Hence, a question arises whether investment in TVET—particularly lengthy full-time programs—provides benefits to the source country.

Difficulties in recruiting staff lead employers toward alternative strategies. The predominant strategies are upskilling existing employees, dividing the work, and recruiting overseas. A study on Solomon Islands (World Bank 2007) reveals that employers have redefined jobs to use semiskilled employees and improve the skills of existing employees. Data on training⁴ across the region show that about one third of employers apply less than 1% of their total expenditure on training. However, about 30% of employers in the manufacturing and hotels and tourism sectors use between 2% and 4% of their expenditure on training. Further data from a survey of employees indicate that more than 60% of respondents had received training in their current workplace. Of those who had received training, 35% had participated in formal training at the workplace and another 30% had undertaken informal training. Overall training had an average duration of 62 days and was concentrated in frontline management, accounting/financial skills, and customer service. These approaches to skills formation within the firm suggest that TVET systems should examine alternative delivery models in association with industry to play a more effective role in training.

Evidence indicates that skills shortages are particularly associated with key export-earning economic activities—primarily mining and tourism—and the associated economic sector, construction. The highest vacancy rates in the survey were seen in the construction and the hotels and restaurants sectors. Almost two thirds of all employers reported difficulties in recruiting suitable staff. In occupations, about a third of respondents indicated difficulty in recruiting managers/professionals, technicians, and tradespeople. About 10% of employers reported great difficulty recruiting for the occupations of customer service clerks, electrical mechanics and fitters, refrigeration and air-conditioning repairers/installers, motor vehicle mechanics and fitters, electricians, plumbers and pipe fitters, civil engineering technicians, other technicians/associate professionals, and computer technicians. Between 8% and 10% of the respondents had difficulty recruiting

⁴ Field (1998) distinguishes between learning that takes place within an organization and formal training. According to Field, there is often an overemphasis—especially in data collection—on the level of formal training taking place and a disregard for job-based learning, much of which can be more effective than formal studies. Hence, the data above provide only one dimension of performance enhancement.

suitable secretaries; building and construction technicians; clerks; servers and bartenders; carpenters and joiners; and chefs and cooks.

Recruitment also varied by location. About two thirds of employers in capital cities experienced difficulty in finding staff, but this increased to 75% of employers in outer islands and 80% of employers in rural areas of the main islands.

The following sections review labor market issues according to the three country classifications.

Group 1: Land-rich, Low-income Countries

Formal Sector Gaps

Skills shortages in group 1 countries are mainly qualitative. Many people are trained, but they generally lack skills and experience required in the workplace. For example, Solomon Islands employers indicated that they prefer to hire high-performing secondary school graduates with appropriate attitudes and train them themselves rather than hire graduates from TVET institutions (World Bank 2007). Recruitment becomes more difficult for more highly skilled positions. Demand for applicants with diplomas and certificates tends to be greater than demand for those with apprenticeship and vocational–technical certificates (World Bank 2007). Appendix 3 provides a summary of the main skills gaps in this group of countries.

Local citizens cannot be recruited for an array of occupations, leading to the recruitment of expatriates often at much higher wages. The more complex the skill, the more likely the shortage of suitably qualified local citizens. The first reason for this mismatch is a gap between the performance standard achieved in the TVET sector and the standard actually required in the workplace. Second, enterprises lack a training culture to undertake effective workplace learning. The general attitudes acquired in the TVET sector place many graduates at a disadvantage in being able to work effectively and learn in a workplace. In many cases, young people study full time in an environment that lacks the values important in the workplace such as punctuality, responsibility, working effectively with others, and efficiency. Students' perceptions of what they have achieved can often differ with how an employer judges them. Consequently, they are not well prepared for a work environment that, at best, may offer them a comparatively menial job that is below their expectations.

The relative growth of different parts of the economy largely determines key areas of skills shortages. For PNG, mining and related activities are currently demanding a skilled workforce with a shortfall being met with expatriate labor. The higher wages in mining activities substantially diminish the supply to other sectors such as manufacturing. As shown in Appendix 3, there is a shortage in a wide range of trades and supervisors. For Vanuatu, shortages largely occur in tourism-related activities, including construction.

Supervisory and management skills are particularly lacking. Solomon Islands also suffers from a general range of technical skills shortages. Data from a group of employers show that 35% of unmet demand for skilled positions was for people with vocational or technical training (World Bank 2007).

So many people are trained in skill areas such as automotive mechanics, accountancy, and carpentry, suggesting an oversupply. However, invariably the level of skill acquired is below the performance level of urban modern-sector enterprises. Hence, any surplus trained labor does not constitute a surplus of individuals with adequate performance levels. Consequently, there is a shortage of carpenters and mechanics with adequate skills in Solomon Islands and Vanuatu. Many, nonetheless, use these skills as informal sector workers providing services in rural areas.

Shortages become even more acute where training places for specific occupations are limited and where access to high-quality work experience is needed. For example, little training is taking place for the building finishing trades such as tiling, painting, and plastering. Therefore, a shortage exists of skilled and experienced workers for these trades in PNG. Similarly, little training is provided for chefs. Achieving international standards depends on gaining appropriate experience under a highly skilled worker. All countries have a shortage of electricians and, in some countries, plumbers. Two countries have shortages of refrigeration and air-conditioning tradespeople.

Shortages of technicians are only apparent in PNG because of its more significant manufacturing sector. Vanuatu, particularly because of its expanding tourism industry and other building activities, suffers shortages of construction supervisors specifically, while PNG suffers a general shortage of supervisors. A lack of adequately skilled personnel at the skilled worker level ultimately results in a small pool of people from which to draw for higher positions.

In-service skills gaps are largely in government and business operations. Studies have revealed major performance gaps in public service activity: in understanding what the public sector is, appropriate ethics, and ability to follow procedures. Skills are generally lacking in customer service, finance, and office management and administration in general. These findings led funding agencies, such as the Australian Agency for International Development (AusAID), to fund training for the public sector, especially in PNG, with a strong focus on good governance. In addition, people running businesses lack general management and entrepreneurial skills. Many existing technical staff can also be significantly upgraded in their skills. Machine shop skills were highlighted in Vanuatu but, given the overall shortage of skilled workers, there is substantial scope for upskilling existing workers. In Solomon Islands, a shortage of qualified workers results in unqualified workers being employed, resulting in a significant need for upskilling (World Bank 2006).

Informal Sector Gaps

The overall importance of agriculture sheds light on the skills gaps between the practices people currently carry out and those that can lead to much higher productivity. Most countries can benefit from improved animal husbandry practices and more advanced agricultural knowledge of the crops they are currently growing or are likely to grow. For PNG, improved skills are particularly needed for growing coffee and cocoa, which are major export products, as well as for newer crops such as vanilla and rice. Solomon Islands requires skills for improved techniques in coconut and cocoa production. Vanuatu has skills gaps in the growing of coconut, cocoa, and vanilla. Skills are also required in fishing, aquaculture, and logging (Solomon Islands). Concerning logging, skills in sustainable approaches are particularly needed as shown by a need for skills in reforestation. A survey on rural training needs and opportunities in the Solomon Islands identified the following areas (Table 2.1).

Key skills gaps in the informal sector center on the processing and merchandising of economically important products—such as cocoa and coffee—and on comparatively new products such as vanilla. Otherwise, the informal sector skills gaps are predominantly in processing primary products and merchandising, producing handicrafts in urban areas, and providing services such as carpentry. Skills gaps are also seen in basic business management and marketing.

Vanuatu faces widespread skills shortages for upgrading its productivity in agriculture. Entrepreneurial skills are needed in the rural sector where individuals are mainly self-employed. Significant technical skills gaps in the rural sector hinder development. These include inadequate understanding of more efficient cultural practices, such as

Table 2.1: Survey Results on Rural Training Needs in the Solomon Islands

Rural training opportunities

- Improve village life—electrification, safe water (80% of communities are trying to implement local community development projects requiring specialized skills)
- Prepare youth to find wage jobs in rural industries, logging, and mining
- Promote village-based enterprises for self-employment to supplement family income

Potential occupations for self-employment or wage employment

1. Farmer
2. Housekeeper, home duties
3. Shopkeeper, market vendor
4. Carpenter
5. Fisherfolk
6. Security
7. Mechanic
8. Chainsaw operator
9. Timber miller

Source: World Bank, 2007.

laborsaving implements and inputs (including fertilizers and pesticides). Knowledge about cultural practices is also weak with regard to specific crops and livestock. Scope exists for more research into agriculture and livestock, but the agriculture and extension services have been largely ineffective in disseminating knowledge to producers. Achieving the Government's priority of increased agricultural productivity depends heavily on addressing the skills gaps of this sector. Yet a skills strategy is still not in place.

Group 2: Small, Vulnerable Island States

Formal Sector Gaps

Both the RMI and FSM have significant skills shortages because of the easy access by their citizens, skilled and unskilled alike, to jobs at higher salaries in the US. The survey of PIC employers revealed that about 30% of employers from RMI and FSM lost employees to emigration in the previous 12 months, compared with about 10% of Kiribati employers.

The problem is exacerbated in RMI where the TVET system is almost nonexistent. This makes it difficult to recruit newly trained staff. The lack of trained local staff is mutually reinforcing. The shallow pool of skilled domestic workers contributes directly to shortages of qualified supervisors and managers. Consequently, skills shortages occur in almost all occupational areas. Skills shortages in the RMI and FSM are addressed through importing skilled foreign labor.

Emigration from Kiribati, Nauru, and Tuvalu is difficult except for skilled workers. Skills shortages arise because of the limited TVET sector. At the same time, the narrow range of people in many occupations does not require a broad TVET system, since this would quickly overproduce skilled workers in relation to the labor market's absorptive capacity. Emigration, however, is becoming more attractive for the skilled and is likely to lead to increasing skills shortages. An example of skills shortages in Kiribati that is not easily addressed by the TVET sector is naval architect technicians, mechanical drafts people, and those in metal trades.

Employment on foreign fishing fleets and passenger vessels has become a major avenue of employment in Kiribati and Tuvalu, but there are no skills shortages. The labor requirements of foreign vessels are addressed through negotiations between maritime colleges and the fleet owners. This results in adaptation of intake and output from training institutions according to needs.

The major skills shortages of vulnerable small island states are summarized in Appendix 3.⁵ The RMI and FSM demonstrate significant shortages of local people in a range of financial, management, and technical occupations including construction trades reflecting the strong impact of emigration and, in the case of RMI, an almost nonexistent TVET sector. Employment of expatriates willing to work for local wages has

5 No data are available for Nauru.

largely addressed the skills shortages, allowing locals to gain employment for higher wages in the US. A strengthening of the TVET sector without other measures is unlikely to lead to more citizens replacing expatriates because of the wage differential between the US and the local economy. Rather, the main purpose of strengthening a TVET sector would be to enable locals to gain better-paying jobs in the US.

Kiribati, Nauru, and Tuvalu do not have the same level of skills shortages as the RMI and FSM because they lack ready chances for emigration and have smaller, closed economies. The few responses to the employer survey in Nauru indicated difficulties in recruiting staff with critical skills. Two factors that contribute are a lack of training facilities and reliance on an imported trained workforce in the past. Limited economic development in Nauru, however, will result in weak demand in most skilled areas.⁶ Similarly, a small population and limited economic growth in Tuvalu has not resulted in a demand for skilled labor that exceeds the current skilled pool. Kiribati has a TVET sector to meet skill requirements. Kiribati and Tuvalu also use overseas scholarships to develop skills, enabling these countries to maintain an adequate pool of skilled labor. Thus, shortages in technician levels in the two countries can be addressed through scholarships to the Fiji Islands. Other shortages, e.g., in the metal trades, are currently addressed through short-term programs. Nonetheless, filling up positions in Kiribati takes longer than in other countries and there are more vacancies relative to population than in other PICs. Given the dominance of public sector employment, vacancy rates may also stem from the length of time required for public service processes.

Major skills gaps in existing employees occur largely with respect to management/supervision and planning skills. A full list is provided in Appendix 3. The employer survey showed that customer service and financial/accounting skills had the highest priority for training in Kiribati, RMI, and FSM. The main needs for Nauru and Tuvalu were in computer engineering, financial/accounting, and human resource development; Tuvalu also needed small-business management and secretarial skills.

Informal Sector Gaps

The potential for expanding and improving agriculture is limited. Still, data from Kiribati, FSM, and Tuvalu indicate that skills gaps exist in efficient practices in coconut growing, fishing, chicken/pig husbandry, and vegetable production. However, the high levels of urbanization in RMI means that a much smaller percentage of people require skills for the informal sector. Access to migration also acts as a disincentive to agricultural activity.

⁶ During its boom years, Nauru imported skills from other Pacific island countries and neglected the development of skills among its citizens. Following the demise of the phosphate industry, these workers were repatriated to Kiribati and Tuvalu, leaving a shortage of skills.

Informal sector skills gaps outside agriculture are primarily in handicrafts, basic trade skills such as carpentry and mechanical repair, and sewing.

Group 3: “Advanced” Island States

Formal Sector Gaps

These island states suffer widespread skills shortages in construction trades, plumbing, electrical, refrigeration/air-conditioning repair, and hospitality occupations. Emigration of skilled workers from Tonga, Samoa, and the Fiji Islands, and general emigration of Cook Islanders to New Zealand is largely responsible. The skills gaps are addressed by recruiting expatriate labor. Appendix 3 provides a full list.

The diverse Fiji Islands economy, with its substantial tourist industry, has a large demand for skilled labor. However, once individuals have acquired sufficient skills, they are attracted to the higher wages offered in Australia and New Zealand. The levels of skills attained in parts of the TVET sector are not well matched to the performance required on the job. The consequence is shortages in most occupational areas. The Cook Islands and the Fiji Islands have the greatest skills shortages. Ease of migration for Cook Islanders means a remaining workforce with few skills and an expatriate workforce is often required. A similar situation exists with Compact member countries, where wage differentials drive the labor markets. Citizens use their access to higher-paying jobs in New Zealand, while expatriates who cannot work in New Zealand accept lower-paying jobs in the Cook Islands.

Samoa and Tonga have fewer shortages than the other two countries, and vary in their skills shortages (apart from plumbers). The existence of a TVET sector in both is likely to ease some of the problems caused by the emigration of skilled workers.

In-service needs in the Fiji Islands are predominately acquisition of technician qualifications that are readily available at the Fiji Institute of Technology (FIT). In Samoa, needs cover a wide range of clerical, financial, fishing, and hospitality skills (Appendix 3). For Tonga, the in-service needs are in fishing, and financial and clerical functions. For the Cook Islands, skills needs are in customer service, management/supervision, financial/accounting, and fishing. The employer survey found that the main skills needs for these states, generally, are in human resource management, accounting/financial services, and customer service.

Informal Sector Gaps

No specific agricultural and informal skills gaps were identified in this group of countries. Remittances, employment in the hospitality industry, and emigration provide sufficient options for income resulting in little interest in informal sector activities. Increasingly, the youth tend to aspire for higher aspirations than hard labor in agricultural activities.

3

LANDSCAPE AND ARCHITECTURE OF TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING IN THE PACIFIC



This chapter consolidates information from the 13 countries; explains existing TVET systems in the Pacific; and identifies TVET patterns, dimensions, and constraints. It does not analyze TVET—that comes in Chapter 4.

Overview

The structure of TVET in most PICs is of three types: school-based vocational education, vocational training institutions, and postsecondary technical training. Almost all countries attempt to provide some prevocational courses at the secondary level. TVET is often administered by different organizations, which can lead to challenges in coordination. Several countries have national training councils. Apprenticeship training is strong in the larger countries. Maritime training is an important specialization for the region. Private training institutions constitute an important, although largely unsurveyed, part of providing training. Church organizations are important suppliers of training in many countries. Public financing for TVET accounts for 2–4% of public spending on education and training. Some nonpublic financing supports TVET at all levels.

This chapter describes the current system of TVET in the Pacific and identifies their constraints according to the following 10 topics:

- Organization and administration,
- Prevocational education,
- Vocational training,
- Postsecondary technical training institutes,
- Apprenticeship training,
- Maritime and fisheries training,
- Private training providers,
- Trade testing,
- Rural and informal sector training, and
- TVET finance and expenditures.

Organization and Administration

The organization and administration of TVET presents a diverse picture country by country in the Pacific (Table 3.1).

Several patterns exist. First, ministries and departments of education administer vocational programs in secondary schools. This applies also in decentralized systems. For example, in the FSM, four state departments of education handle all education and training in their respective states, with the national department responsible mainly for policy and standards. In PNG, the National Department of Education supports, but the provincial departments of education directly administer vocational centers. Second, postsecondary technical institutions may be administered from three separate sources.

Table 3.1: Responsibilities for TVET in the Pacific

Country	Secondary Schools	Postsecondary	Others
1. Cook Islands	Ministry of Education	Department of National Human Resources Development	
2. FSM	State departments of education	College of Micronesia – semi-independent	
3. Fiji Islands	Ministry of Education	Fiji Institute of Technology (largely autonomous)	training and productivity authority of the Fiji Islands
4. Kiribati	Ministry of Education and Youth Services		Ministry of Labor, Human Resource Development Department
5. Nauru	Department of Education	—	—
6. Palau	Ministry/Bureau of Education	Bureau of Education and Palau Community College Board of Trustees	
7. PNG	Provincial departments of education	National Department of Education	Department of Labor and Industrial Relations, National Training Council, and National Apprenticeship and Training Board
8. RMI	Department of Education	College of the Marshall Islands—semi-independent	National Training Council
9. Samoa	Ministry of Education, Sports, and Culture	National University of Samoa, Institute of Technology—largely autonomous	Samoa Qualifications Authority
10. Solomon Islands	Ministry of Education and Human Resource Development	Solomon Islands College of Higher Education	Ministry of Commerce, Industry, and Employment
11. Tonga	Ministry of Education, Culture, and Women	Ministry of Training, Employment and Youth Services	Tongan National Qualifications and Accreditation Board—planned
12. Tuvalu	Ministry of Education and Sport	—	—
13. Vanuatu	Ministry of Education	VIT—separate board	Vanuatu National Training Council Provincial training boards

— = data unavailable.

FSM = Federated States of Micronesia, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, TVET = technical and vocational education and training, VIT = Vanuatu Institute of Technology, Sources: Background and in-depth reports.

Some fall under ministries or departments of education. Others have separate ministries or departments such as the Cook Islands and Tonga. In addition, the Samoa Qualifications Authority (SQA) is responsible for coordinating postsecondary training. Some tertiary institutions are largely autonomous and have boards that manage their own affairs—FIT and National University of Samoa, Institute of Technology (NUSIOT)—and, to a certain extent, the community colleges in the FSM, RMI, and Palau. Third, a diverse set of other institutions play important roles in administering the provision of skills training. These include national training councils, national qualification bodies, and other ministries.

Three national training councils operate in the Pacific:

- In PNG, the National Training Council (NTC) under the Department of Labor and Industrial Relations, established in 1991, regulates private training providers, coordinates public and enterprise training, and administers scholarships. It does not award qualifications.

- In the RMI, NTC, established in 1981, performs a wide range of functions. It advises on, coordinates, and regulates training; develops information about training; finances training through a special fund; establishes standards, tests trainees, and awards certificates.

- The Vanuatu National Training Council (VNTC) became operational in 2003. Its purpose is to promote and coordinate training, and raise quality by establishing standards for registered providers. VNTC is assisted by six provincial training boards that help identify training needs and track training providers.

Two countries have, or soon will have, national qualification bodies—Samoa and Tonga. The purposes are mainly quality assurance such as establishing qualification frameworks, setting qualification standards, assessment, and accreditation. In addition, the aim of SQA is to coordinate postsecondary providers and to give policy advice on strategies and priorities for postsecondary TVET. A separate TVET organization is also planned for the Fiji Islands.

Other key institutions in Pacific TVET include the Ministry of Labor, Human Resource Development Department in Kiribati, the Department of Labor and Industrial Relations in PNG, and the Ministry of Commerce, Industry, and Employment in Solomon Islands.

One significant organization for skills development stands apart in the Pacific—the Training and Productivity Authority of Fiji (TPAF) under the Ministry of Youth, Sports, and Employment Opportunities and Productivity. TPAF is unique in the Pacific. It has its own board, about 190 full-time staff, and its own sources of financing through a pay-roll levy and fees for training. TPAF provides skills training to both youth and employed workers, administers trade tests, and assists enterprises to build their productivity (see the Fiji Islands report).

Of course, constraints exist. The governing boards and councils of various TVET entities tend to have weak representation from the private sector and employers.

- In the Fiji Islands, the TPAF board under the Minister of Labor has 5 of 14 (36%) members representing employers. The exception, FIT, reports that 80% of its 12-member council represent nongovernment actors.

- In PNG, the 15-member board of NTC has heavy government representation, as does the National Apprenticeship and Trade Testing Board (NATTB).

- In RMI, NTC has seven members, of whom two represent the private sector (29%).

- In Samoa, the SQA board has nine members, including four employer representatives.
- In Tonga, the National Qualifications and Accreditation Board will have seven members, including three nongovernment representatives.
- In Vanuatu, VNTC has eight members on its board, only one of whom comes from the private sector.

Three countries reportedly have issues in terms of coordination among major TVET organizations—the Fiji Islands (Ministry of Education [MOE], FIT, and TPAF); PNG (NTC, NATTB, and the TVET Division of the National Department of Education [NDOE]); and Solomon Islands (Ministry of Education and Human Resources Development [MEHRD] and Ministry of Commerce, Industries, and Employment [MCIE]).

In addition, the following constraints and issues were reported.

- No formalized consultative process allows the private sector, churches, and civil society to articulate their training needs or consult on government policies, plans, or agenda for reform (FSM).
- NTC in PNG reports that its 25 staff are insufficient for it to carry out its functions properly. In addition, NTC lacks expertise in assessing institutions, courses, and trainers; and lacks the power to enforce. A lack of funding also prevents staff from making field visits to monitor the institutions it is supposed to supervise.
- Strategies and work programs are lacking to implement TVET policies (PNG MOE).
- Research and evaluation on TVET operations are lacking. Staff and funding have not been provided for these functions (PNG MOE).
- Staff are needed to carry out wide-ranging functions (RMI NTC).
- In Vanuatu, the VNTC Act has shortcomings, including insufficient representation of employers, and an inability to register institutions (as opposed to accrediting courses).

Prevocational Education

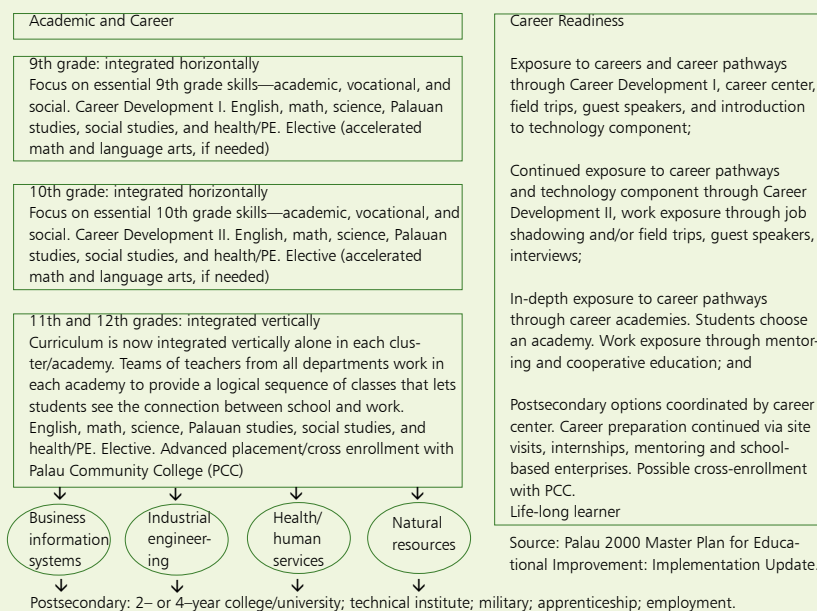
The purpose of prevocational education is to expose students to basic skills that will interest them in pursuing a more specialized vocational training and will provide them with some rudimentary skills useful in the workplace or self-employment. It is not preparation for employment. Virtually all countries in the Pacific provide some form of practical, prevocational courses in all or some secondary schools. The pattern ranges from all schools (the Fiji Islands and Palau) to only a few schools (PNG and Vanuatu). Typically, home economics, industrial arts, and agriculture are compulsory in lower secondary with more specialized, optional courses at the upper secondary level. Either prevocational courses are not examined or the examinations do not count toward advancement to the next level (as in Solomon Islands). The Pacific Regional Initiatives for the Delivery of Basic Education

(PRIDE) Project, based at the University of the South Pacific (USP), is helping introduce or strengthen prevocational courses in Nauru and Palau. The schools that implement these courses best tend to be religious with considerable tradition and expertise in the subjects, e.g., Don Bosco (PNG, Fiji Islands, and Solomon Islands). Palau High School has a successful system of integrating practical courses with academic subjects (Box 3.1).

Box 3.1: Palau High School—School-to-Work Model

Palau is probably one of the few countries in the Pacific that can highlight a good model of vocationalization of secondary education. Palau High School's school-to-work model includes school-based teaching and work-based activities. Following 2 years with career development courses, students in years 3 and 4 are required to enroll in one of four career academies and take six courses. The career academies are agriculture, business information, health and human services (tourism and hospitality), and industrial engineering (construction and automotive technology). Students take three academic classes and one or two vocational–technical courses in block scheduling each semester to develop workplace skills. This is complemented by workplace learning, including 6 hours of job shadowing (following and observing a person at work—2nd year), 40 hours of job mentoring (3rd year), 380 hours of career practice (4th year), and 8 weeks of summer work experience. The workplace learning component is supervised by local employers. The following diagram shows the career pathways model for Palau High School.

Career Pathways Model for Palau High School



The career academies have graduated about 500 students up to 2006, 33% in business, 30% in tourism and hospitality, 27% in industrial fields, and 10% in agriculture. Graduates are prepared for two options: immediate employment or to continue to the Palau Community College in the same or related fields of study.

Source: Takashy, 2007a.

The Fiji Islands has the most extensive system of prevocational education in its secondary schools, including 45,000 students in forms 3–4 and 33,000 students in forms 5–7 (Table 3.2).

Table 3.2: Fiji Islands—Prevocational Courses and Examination Levels

(proportion of students enrolled in vocational programs as a percentage of total secondary students enrolled, by subject and level)

Level	Agriculture	Computer Education	Office Technology	Home Economics		Industrial Arts
FJC (F4)	73	—	22	86		89
FSLC (F6)	62	59	14	C&T 15	FN 55	69
FSFE (F7)	23	40	—	A&D	FT	25
				2.5	22	

A&D = apparel and design, C&T = clothing and textile, F = form, FJC = Fiji Junior Certificate, FN = food and nutrition, FSFE = Fiji Seventh Form Examination, FSLC = Fiji School Leaving Certificate, FT = food and technology, MOE = Ministry of Education, TVET = technical and vocational education and training, — = data unavailable.

Note: Secondary schools offer 16 TVET subjects: agricultural science, computer education, office technology, home economics, clothing and textile, food and nutrition, apparel and design, food and technology, technical drawing, graphic arts, woodwork, food technology, engineering technology, metalwork, technical drawing and design, and introduction to technology.

Source: TVET section of MOE 2004, as presented in the Fiji Islands In-Depth Report, paragraph 3.4.

Most countries report serious difficulties in providing quality prevocational courses in secondary schools. Constraints include lack of trained teachers, facilities, equipment, and funding for consumable supplies. In addition, administrators and parents prefer to concentrate on academic subjects that provide advancement to the next level.

Vocational Training

Vocational training for, more or less, standard trades is provided in two main types of institutions: technical institutes and vocational training centers. Most countries in the Pacific provide certificate-level training in trades where they have postsecondary institutions. These include the FSM College of Micronesia, College of the Marshall Islands (business-related courses only), Solomon Islands College of Higher Education (SICHE), Vanuatu Institute of Technology (VIT), FIT, NUSIOT, Tonga Institute of Science and Technology (TIST), and Tarawa Technical Institute (TTI). These institutions are covered in the next section.

In addition, most PICs have various types of non-tertiary trade or vocational training (Table 3.3).

Table 3.3: Trade and Vocational Training in Selected Pacific Countries

Country/Type	Length	Number of Institutions	Number of Trainees	Females Enrolled (%)	Number of Graduates
Cook Islands—Department of National Human Resources Development Training Center	Short courses	1	340	23	
FSM—trade training and testing program			300		
Fiji Islands—Ministry of Education Vocational Centers Training and Productivity Authority of Fiji Skill Centers	1–2 years	62	2,300	46	8,500 ¹
	1–3 months	6	20,200	Negligible	
PNG—vocational centers	2 years	140	17,800	27	3,500
Solomon Islands—vocational and rural training centers	1–2 years	28	2,000	27	1,200
Tonga Institute of Science and Technology	1–3 years	1	296	1	
Vanuatu—rural training centers	2 years	36	2,000	20	

FSM = Federated States of Micronesia, PNG = Papua New Guinea, % = percent.

Sources: In-depth and background reports.

¹ The Training and Productivity Authority of Fiji (TPAF) awarded 20,200 certificates in 2005 and about 25,000 in 2006. However, some trainees attended more than one training program in a year. The 25,000 certificates were for about 8,500 people attending different training programs (TPAF management).

The trades, training, and testing program (T3) in the FSM trains about 300 people annually in construction, electrical, and mechanical trades—including basic, intermediate, and advanced courses.

Apart from FIT, the Fiji Islands has two systems of trade training—MOE vocational centers and TPAF training. The 62 vocational centers provide 1- to 2-year training courses for 2,300 trainees mainly in five fields (automotive engineering, carpentry and joinery, catering, tailoring, and office technology). Girls make up 46% of the enrollment, but are concentrated in catering, tailoring, and office technology. TPAF trains unemployed school-leavers and workers in enterprises at a ratio of 70% practical to 30% theory. In 2005, it gave 1,510 courses for 20,200 participants, and 1,980 participants in award courses developed with institutions in Australia and New Zealand. Except for catering, virtually all training were for males.

In PNG, about 140 vocational centers enroll 17,800 trainees in mostly 2-year programs that graduate about 3,500 trainees a year. A sizable share of the centers are owned and operated by church agencies. These institutions average only 120 students per center. Overall, 27% of the trainees are female. Church agencies enroll thrice as many female students as government institutions. The vocational centers train in traditional trades—carpentry, auto mechanics, welding/metal fabrication, as well as plumbing and agriculture. Home economics is also provided—cooking, sewing, hospitality, and typing.

Box 3.2: Fiji Institute of Technology Franchise Program

Perhaps the most innovative aspect of the program of the Fiji Institute of Technology (FIT) is the “franchising” it offers to secondary schools. Its purpose is to allow students who have finished their secondary education (at forms 4–6) to get qualifications and continue their education at the tertiary level. In effect, it is a bridging program with instruction provided off the FIT campus. It allows students to pursue training for a trade certificate with set quality standards in their locality without having to attend the FIT campus for the first part of the training. There are 48 franchise centers. If a school is interested in establishing a FIT franchise center, FIT sends out inspectors to evaluate the premises, equipment, and qualifications of the instructors. Any shortcomings must be rectified before an agreement is signed. FIT does not provide instructor upgrading, although it may consider short upgrading courses every 2 years for franchise instructors as needed.

Off-site trainees become official students registered at FIT. Trainees pay 150 Fiji dollars (F\$) for one stage, which is equivalent to 12 weeks in residence at FIT, but takes 1 year at the franchise center. Schools may add their own tuition charge on top of this—in some cases bringing total tuition charges to F\$350–400. This adds to the confusion of parents and students, who then think the franchise cost is excessive. The school only pays FIT for the tuition of the 15 students. If more enroll, the school keeps the tuition. This is intended to give schools an incentive to enroll more students in the franchise programs. Still, the cost to a franchise student is considerably less than that of a residential student at FIT, where tuition and fees total F\$350–400 before room and board.

In return for the fees, FIT provides the curriculum and syllabus, and sets and administers the final examination that is uniform throughout the country. Students can now take up to three stages of the five-stage preparation for a trade certificate, but must take stages four and five at FIT. FIT monitors results by center. If overall trainee marks deteriorate, it can remove recognition until the center improves and has done so in at least one case. FIT designates one of its staff “franchise officer” in each specialization and gives them a separate allowance. The franchise officer visits each franchise center at least twice a year and gives a report to the head of school. FIT sets the theoretical examination, sends it to the franchise centers, receives the tests back, and has them marked in Suva. FIT also specifies what has to be assessed in practical subjects, but teachers at the center do the assessment.

The increased demand of secondary schools for this arrangement offers some recognition of the type of courses offered at FIT and their marketability.

Enrollment in FIT Franchise Courses, 2001–2006

Course	2001	2002	2003	2004	2005	2006	Total
Automotive	216	334	338	418	594	260	2,160
Construction		8	160	145	215	220	748
Commerce				32	114	88	234
Electrical				13	14		27
Hotel and Tourism			165	152	125		442
Mechanical	37	46	98	76	103	44	404
Total	253	388	596	849	1,192	737	4,015

Source: FIT Management.

In 2006, the total numbers enrolled dropped because of a near doubling in student fees, from F\$80. Many students who take initial stages of the franchise courses and then enroll in FIT to complete the program do not attain the level achieved by students who start at FIT. This is because some franchise courses lack the necessary equipment, e.g., calibration equipment in the automotive course.

According to some observers, the range of courses has changed little over the past 25 years. Dropout is almost 40% during the 1st and 2nd years.

Solomon Islands has 28 working rural and vocational training centers run by the main church agencies in the country. The centers enrolled just over 2,000 trainees in 2006 and graduated 1,200. Only 27% of the trainees were female.

Similarly, Vanuatu has an extensive network of 36 rural training centers (RTCs) that are run by churches and nongovernment organizations (NGOs) without government financial support. In 2006, just over 2,000 trainees were enrolled in courses that lasted about 2 years. Only 20% of trainees were female.

The Cook Islands has established a training center under the Department of National Human Resources Development, which trains about 340 annually in a wide range of short-term courses categorized as in-country upskilling and accredited training. Only 23% of the participants are female.

Three countries have no systems for vocational training in standard trades. Tuvalu has no trade training institution, although the Public Works Training Department gives short courses periodically. Nauru's national vocational training center no longer operates following extensive damage from a fire and subsequent transfer of its few staff. Finally, the RMI in reality has no trade training institution though it has a National Vocational Training Institute. The institute is misnamed and provides only remedial "second-chance" secondary education without vocational training courses. An NGO, WAM, provides some training in carpentry and joinery through traditional boat building.

Vocational training institutions, where they exist, enroll substantial numbers of trainees. However, only a minority of those trainees are female.

The main constraints in vocational training systems include lack of capacity to respond to high demand for training places; lack of qualified instructors; lack of financing; inadequate tools and equipment; poorly maintained facilities; and low-quality training—i.e., trainees usually have to observe in workshops rather than practice.

Postsecondary Technical Training Institutes

Overview

All countries, apart from the Cook Islands, Nauru, and Tuvalu, have postsecondary technical training institutes (Table 3.4).

Most postsecondary technical institutes provide a range of qualifications, including various trade certificates and diplomas. Most institutions also give short courses. TTI follows this approach because of the small size of the labor market.

The following are some salient characteristics of postsecondary technical institutes:

- Several technology institutes incorporate different schools or colleges (the Fiji Islands, FSM, Samoa, and Solomon Islands), entailing multiple campuses for some

Table 3.4: Postsecondary Technical Training Institutes

Institute	Length (years)	Number of Institutes	Number of Students (EFTS)	Female Share (%)	EFTS Students per Teacher
College of Micronesia	2–3	5: 1 national, 4 state			
Fiji Institute of Technology	2–4	1, with 8 departments and satellite campuses	7,600 ^a	37	30
Kiribati–Tarawa Technical Institute	1–2	1	225	>50	9
Palau Community College, Department of Technical Education	1–2	1	513	31	24
PNG–Business and Technical Colleges	2	7	2,700	30	12
College of the Marshall Islands (business and computing only)	2	1	67	40	14
Samoa–National University of Samoa Institute of Technology	1–2	1, with 3 schools	677	33	
Solomon Islands College of Higher Education	2–3	1, with 6 different schools	1,037 (not EFTS)	33	
Tonga–Community Development Training College	1–2	1	531	63	
Vanuatu Institute of Technology	1–2	1	500	42	9.7

a The actual number of students by head count exceeds 13,000.

EFTS = equivalent full-time student, PNG = Papua New Guinea, % = percent, > = more than.

Sources: In-depth and background reports.

institutes in the Fiji Islands and Solomon Islands. The FSM has five campuses for its College of Micronesia.

- The Fiji Institute of Technology (FIT) is clearly the largest and the leader in the Pacific, and even offers degree-level training.

- The level of enrollment in PNG—2,700 trainees—seems low compared to other countries, especially the 7,600 in the Fiji Islands, a country with one fifth of PNG's population.

- The level of outputs is relatively low in relation to enrollments at the community colleges in the RMI, FSM, and Palau.

- A relatively low proportion of students are female—on the average 30% in PNG, 37% at FIT, and 42% at VIT—except in commerce and tourism programs.

- Several institutions teach according to competency-based methods, including technical colleges in PNG, NUSIOT in Samoa, and VIT in Vanuatu.

- Several technical institutes have industry members on their boards, including a majority at FIT. FIT and NUSIOT in Samoa use industrial advisory committees to ensure relevant content of courses. VIT in Vanuatu has attempted the same, but its industrial advisory committees are dormant at present. TTI in Kiribati has no industry representation.

- The institutions use different means for quality assurance. Both the College of the Marshall Islands and the College of Micronesia are members of the Western Association of Schools and Colleges of the US. Others use internal quality assurance—including FIT and NUSIOT, which have both adopted processes developed in New Zealand.

- Two technical institutions—FIT and NUSIOT—are autonomous. Most others report to MOE (PNG, Community Development Training College in Tonga, TTI, and VIT).

- The average number of full-time equivalent students to full-time equivalent teachers varies greatly—9:1 at TTI, 9.7:1 at VIT, 12:1 at PNG technical colleges, 14:1 in the RMI (business and computing only), 20:1 at TIST, and 30:1 at FIT. The latter two call into question the amount of practical training that can be done.

- Several institutions incorporate apprenticeship training (the FSM and PNG).

Only three countries have done tracer studies on graduates—Palau, Solomon Islands, and Vanuatu. These studies have shown reasonably high employment rates for graduates, and graduates tend to stay in capital cities. Only 4% of graduates in Vanuatu came from urban areas, but 87% stayed in urban areas after graduation.

Constraints

Some main issues are:

- For all institutions, the principal constraint is lack of funds. In Solomon Islands, SICHE gets 80% of its revenue from government and donor sources, and financial limitations have led to staff redundancies. Lack of funding makes it difficult or impossible to keep equipment up-to-date (PNG, VIT, FIT, TTI, and TIST). Still, FIT has been able to mobilize more than half its income from student fees and services. FIT substantially reduced its recurrent cost per student by increasing by 50% the average number of students per teacher (from 20–30).

- Staffing-related issues include inadequate teacher qualifications (the RMI, Tonga, and VIT); high staff turnover, reflecting more attractive wages in the private sector (PNG and Tonga); and the need to update the faculty (FIT).

- Other constraints are (i) low educational qualifications and competencies among entering students—this limits what could be covered (the RMI and VIT); (ii) limited co-operation of employers in advising the institutions and providing practical internships

(Samoa and Tonga); and (iii) excessive administrative centralization (PNG) and narrow internet bandwidth (RMI).

Apprenticeship and Enterprise-Based Training

Apprenticeship Training

Training apprentices is an important part of skills formation in many Pacific countries. Half the countries have organized apprenticeship training programs. One, the Cook Islands, arranges for apprenticeship training in New Zealand. Another, Tonga, has training similar to apprenticeships under TIST. Table 3.5 shows some dimensions.

The typical pattern is for apprenticeship training in about seven trades, lasting 4 years, a part of which involves formal training within a training institution. Apprentices are tested for skills and theoretical understanding in the final year and are awarded certificates upon completion.

Apprenticeship training is well developed in PNG and the Fiji Islands. In PNG, NATTB manages apprenticeship training, which normally lasts 3–4 years in eight fields. Apprentices also undergo 8 weeks in technical colleges, paid for by the employer. In total, PNG enrolls 900 apprentices with about 200 apprentices completing their training each year.

In the Fiji Islands, about 580 apprentices are enrolled annually in 4–5-year training programs in 23 trades. About 120 complete apprenticeships annually. Cumulatively, over 5,000 apprentices have completed their training since the program was introduced in 1963. Apprentices are an important source of TVET trainers for trades taught by TPAF and MOE. TPAF administers the apprenticeship program. The numbers of graduates each year in Samoa are also sizable in relation to employment and the size of the training system.

In countries without formal apprenticeship schemes, employers also provide apprenticeships. More than a quarter of all employers surveyed as part of this review had

Table 3.5: Pacific Apprenticeship Systems

Country	No. of trades	Length (years)	No. of employers	No. of enrolled	Annual output
Cook Islands	4 ^a			44 ^b	
Fiji Islands	23	4–5	66	650	120
Kiribati	3	2+		40	
FSM	5	4			35 ^c
PNG	7	4		900	200+
Samoa	7	4	89	233	50
Solomon Islands	4				

a Automotive, electrical, carpentry, and plumbing; b In New Zealand; c Cumulative.

FSM = Federated States of Micronesia, PNG = Papua New Guinea

Sources: In-depth and background reports.

apprentices working in their firms. This included a third of surveyed firms in Solomon Islands and 40% in Tonga. The RMI has no organized program of apprenticeship training, but one fifth of employers—particularly larger firms—report providing apprenticeship training. The RMI firms that hire apprentices can be exempt from the minimum wage and a number of firms do so. However, this practice may be exploitative. Little monitoring of the minimum wage and apprenticeship practices exists.

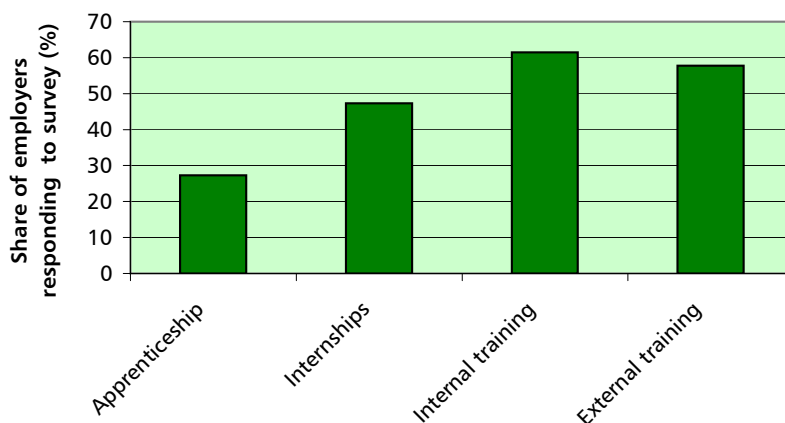
Constraints on apprenticeship programs include the following:

- insufficient support from industry to employ apprentices (Samoa and Tonga);
- high costs to employers for support and formal training (PNG);
- from the viewpoint of apprentices, low wages are a deterrent to continuing in such programs;
- the need for employers to view apprenticeship as an investment, not a cost (Samoa);
- insufficient qualified workplace trainers (Samoa and Tonga);
- the quality of on-the-job training (PNG), particularly in smaller companies;
- the quality of instruction at technical institutions and lack of up-to-date equipment (PNG and Samoa); and
- the lack of systematic training schemes (Tonga).

Enterprise-Based Training

The employer survey carried out as part of this TVET review found that substantial training has occurred within enterprises (Voigt-Graf 2007a).

Figure 3.1: Employer Training Provision (by type), 2006



The highest training priority of employers across the region was in accounting and financial management (15% of employers), followed by customer service (13%), and human resource management (12%).

The survey of employees that this TVET review carried out provided a somewhat different picture. It found that 62% of the workers had received training in their current workplace. About 35% of these had received formal internal training, 30% informal on-the-job training, 8% formal external training, 3% had participated in apprenticeship, and 5% in different types of training. Formal internal training was highest in the Fiji Islands and Tonga and lowest in Kiribati, RMI, FSM, Nauru, and Tuvalu. The largest number of employees had received training in frontline management (26%), accounting and financial management (12%), and customer service (10%). One most striking feature from the employee survey was that many crafts and tradespeople did not receive any post-school qualifications, including 67% of carpenters, 36% of electricians, 89% of chefs and cooks, and 68% of waiters Voigt-Graf (2007a).

Maritime and Fisheries Training

The Pacific region trains about 1,000 seafarers a year in 13 maritime training institutions (MTIs) across 11 of the 13 countries. These MTIs contribute to skills development at national and international levels in a range of occupations: from qualified fishing deckhands and coastal shipping crew to international deck and engine ratings, merchant navy officers, to class 1 masters qualified to captain large seagoing vessels.

Wages earned by maritime workers contribute significantly to domestic economies with some countries earning more than 25% of gross national product (GNP) in the form of remittances from seafarers. The small island states of Kiribati and Tuvalu particularly depend on remittances, with Kiribati earning 25% and Tuvalu 30% of GNP from seafarers.

The International Maritime Organization (IMO), a United Nations body that sets international conventions, treaties, and regulations to govern port authorities, national maritime administrations, and maritime training institutions, regulates the maritime sector globally. IMO requires that a recognized training provider—with legislative and quality management systems to ensure that seagoing personnel are competent in a number of prescribed functions—certify seafarers on international vessels. This requirement is governed by STCW-95 (the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers 1978 as amended 1995).

Every nation must implement and comply with IMO processes and obtain recognition by IMO such that full and complete effect has been given to STCW-95; this is known as the “white-list status.” Loss of this status precludes recognition for international standards of training, and prevents seafarers trained in the country from obtaining

employment on regional or international ships. Ships that do not meet IMO standards cannot load or unload cargo in IMO-compliant ports.

Growing international concern about terrorism and port security has seen the introduction of many IMO requirements, e.g., the International Ship and Port Facility Security Code. The speed with which new rules are proposed and expected to be implemented is a challenge for small island countries with minimal staff and resources and increasing compliance costs. Consequently, the Regional Maritime Programme (RMP) has been established, as a division of the Secretariat of the Pacific Community (SPC), based in the Fiji Islands. RMP helps ensure that poorly resourced PICs can comply with complex international conventions.

RMP provides training for maritime administrations, training institutions, ports, shipowners, and seafarers throughout the region to ensure that their operations conform to international treaties and conventions and accepted best practice. It has developed standardized training curricula that comply with the STCW-95 convention for training ratings and able seafarers within Pacific institutions. RMP oversees the quality assurance and audit program for Pacific MTIs, supports individual countries through the development of model maritime law and regulations, offers a maritime legal advisory service, and coordinates a data and information management system that tracks individual seafarer and vessel profiles across the region.

Pacific MTIs are a good practice example of how nonnegotiable international conventions can be translated into regional and national compliance standards and quality assurance frameworks that ensure countries and their seafarers both comply with international conventions and safeguard seafarers' ability to contribute to economic growth.

Maritime institutions are established in 11 of the 13 countries (Nauru and Palau are the exceptions). Both Kiribati and PNG have two maritime institutions; one trains fishing people exclusively and the other trains seafarers for domestic and international work. MTIs in most countries train for their own domestic coastal merchant, fishing, and tourism vessels. Fiji Islands, Kiribati, Samoa, Tuvalu, and—to a lesser extent—PNG train specifically for international shipping companies.

Several MTIs provide short courses for domestic fishing people. Vanuatu's Maritime College has developed a 2-week mobile training program for rural fishing people to develop or improve their fishing and seafood-handling skills, learn how to operate small boats safely, operate and maintain outboard motors correctly, and maintain and repair small boats.

While remittances have demonstrated positive economic benefits, some social impacts associated with seafaring lifestyles are less desirable. Sexually transmitted diseases, including human immunodeficiency virus (HIV) and acquired immunodeficiency

syndrome (AIDS), substance abuse, and domestic violence have been documented as consequences of long separations from families. Disruption of traditional gender roles—as women take on solo management of households when spouses are at sea—and adjustment difficulties in resuming relationships with returning seafarers, can add to negative social impacts.

RMP estimates that there is the potential for 1,500 new international seafaring jobs for Pacific Islanders. There is also potential for greater levels of employment in the cruise ship market. Ni-Vanuatu are currently employed on P&O Cruise Ships and I-Kiribati are employed onboard Norwegian Cruise Line ships.

However, increasing levels of specialization in the maritime industry will require additional investment in MTIs. RMP is concerned that some member countries do not fully acknowledge the importance of the maritime sector to their national economies. For some PICs, maintaining IMO white-list status is not optional; it is imperative.

Private Training Providers

“Private” or “nongovernment training” is made up of two main parts: not-for-profit institutions operated by NGOs and religious organizations, and for-profit institutions. Several countries in the region have no private (Kiribati) or private/nongovernment (the Cook Islands and Nauru) training institutions. The RMI has no private training market whatsoever. Tuvalu has one private training institution for commercial studies.

NGO-Sponsored (not-for-profit) Training. Religious organizations partner with several governments to provide vocational and technical training at various levels, in such countries as the Fiji Islands, PNG, Samoa, and Solomon Islands. Tonga has seven technical colleges and institutes operated by church organizations. The quality of the religious-operated vocational training generally is high owing to dedication, experience, and expertise.

The salient characteristics of NGO-sponsored training are as follows:

- (i) Nongovernment institutions operate all 36 RTCs in Vanuatu (enrolling 2,000 trainees), many RTCs in the Solomon Islands, and 56 vocational centers in PNG (40%) (enrolling 6,500 trainees).
- (ii) Church organizations and NGOs often target school dropouts, out-of-school youth, and disadvantaged populations.
- (iii) Training programs tend to be along the lines of traditional trades—carpentry, building trades, automotive trades, and home economics.
- (iv) NGO training institutions often sell products. For example, Montfort Technical Institute in the Fiji Islands sells high-quality furniture made by its advanced carpentry and joinery students, but sales rarely meet more than a quarter of operating expenses.

- (v) Religious and NGO organizations are sometimes subsidized by government, such as in PNG (teacher salaries), Fiji Islands (special grants), and Samoa (per student funding, delivered in a lump sum). In other countries, such as Tonga, nongovernment-training providers receive no subsidies from government.

The main constraints reported by not-for-profit training institutions are:

- (i) Training providers depend on maintaining a minimum student enrollment able to pay tuition fees. Yet declining numbers of paying trainees often force institutions to cut courses, reduce teaching staff, hire less well-qualified trainers, provide fewer instructional materials, and defer capital maintenance and renewal.
- (ii) Church and NGO bodies have difficulty in recruiting and retaining qualified staff, as many of their training institutions cannot pay salaries equivalent to those in the public sector.
- (iii) Other issues include lack of national standards to set the quality of courses and limited strategic plans to provide direction (Samoa).

For-Profit Training. The Fiji Islands and PNG, in particular, have substantial numbers of for-profit training institutions. The Fiji Islands has registered about 50 such institutions and PNG over 100. Data are weak on enrollments, but the institutions tend to cluster in low-cost fields, such as computers, business and accounting, hairdressing, and hospitality/catering.

The registration and accreditation processes vary by country, as seen in the following:

- (i) Samoa has had no accreditation processes, but the new SQA is expected to accredit all institutions.
- (ii) The FSM expects any institutions that deliver certification to be accredited by an outside accrediting agency. Any institution conferring only informal (i.e., institution-specific) certificates do not need external accreditation, only registration as a business.
- (iii) MOE in the Fiji Islands requires for-profit training institutions to undergo a two-step process: first, application for establishment; and if a processing committee approves, second, application for recognition with verification of input standards. Training can start once recognition is granted. Annual inspections are supposed to follow to ensure the institution is being run according to standards and plan, but are rarely made. MOE does not regulate fees. On the contrary, recognition means a parent may access their Fiji National Provident Fund savings to pay for school fees.
- (iv) TPAF in the Fiji Islands accredits training providers for programs that are eligible for grant-claimable status under the levy-grants scheme.

- (v) NTC in PNG assesses and accredits three aspects of private (for-profit) training—institutions, courses, and even trainers. Once a training provider applies to NTC for registration, a quality assurance unit screens the application, two assessors conduct a site inspection, and a report is prepared for the screening and assessment committee, which meets six times a year. If approved, the application goes to the NTC board for final approval. Evaluation criteria include evidence of business registration, mission statements, and objectives; adequacy of funding; training plans and relevance of courses; standards of facilities and equipment; staff qualifications; trainee entrance requirements; and selection criteria. Approval is granted for only 1 year at which time the provider has to apply for continued registration. So far, 107 institutions have been registered. Institutions have been de-registered for failure to apply for continued registration. NTC does not regulate the fees charged.

In PNG, a wide range of quality was observed in for-profit training institutions, calling into question the effectiveness of the screening process by NTC. NTC reports inadequate staff capacity to carry out the assessments (three assessors have to cover 109 institutions annually, plus courses and trainers); lack of prosecutorial powers for those who fail to register; need to strengthen the expertise of assessors, plus training in monitoring and developing policy; and additional funding, to permit on-site visits to the institutions being registered. At present, once a training center is registered, few follow-up visits are made.

For-profit training institutions rely exclusively on tuition for capital and operating expenses. Private and nongovernment training providers have the option of joining national support organizations for training, e.g., Samoa Association of TVET Institutions in Samoa or Solomon Island Association of Rural Training Centres in Solomon Islands.

Box 3.3: Pohnpei Agriculture and Trades School

One key nongovernment training institution in the Federated States of Micronesia (FSM), the Pohnpei Agriculture and Trades School (PATS), a 4-year coeducational vocational high school, closed in 2005 after decades of operation. It served students from Kiribati, Nauru, Palau, and Republic of the Marshall Islands, as well as the FSM. It provided training in construction, mechanics, and agriculture. The closure of PATS was directly related to FSM students' lack of interest and declining enrollment in the occupational and trade fields.

Factors responsible for the declining enrollment were lack of employment in the local job market after graduation, low wages offered for available jobs in the trades areas, unfair hiring and employment practices in the private sector job market, and availability of cheap labor from overseas. With these factors and the absence of a minimum wage policy, pursuing vocational education and trades training offered little immediate or medium-term economic advantage. Declining enrollment led to financial problems over the years.

Source: FSM background report.

Trade Testing

Trade tests focus on outcomes and competencies, rather than inputs. Trade testing serves multiple objectives:

- raising the quality of skills attainment by providing goals of minimum standards and a convenient measure for training providers and individuals;
- providing an incentive through certification for individuals to increase their skills;
- permitting upward mobility by allowing those who have attained skills through work experience to have their skill level recognized; and
- providing a mechanism to integrate training providers, giving a basis for comparing the performance of disparate training providers.

Two major trade-testing systems function in the Pacific: the Fiji Islands and PNG. The Fiji National Trade Testing Scheme of TPAF provides an avenue for workers without formal qualifications to acquire recognition of their skills and knowledge acquired on the job in 24 different trades. Some 1,600–1,900 candidates are tested annually. Passing rates are 66–75% for class III (junior tradesperson), 50–66% for class II (qualified tradesperson), and 40–65% for class I (supervisor). Fees charged cover about 60% of the cost of the testing; the training levy finances the balance. Trade qualifications gained through trade testing reportedly reach a close second to apprenticeship in terms of market value.

The PNG trade testing under NATTB also provides certification for achievement of occupational performance standards regardless of how the individual has achieved the standards. The system was developed with the help of two projects funded by AusAID and it covers seven fields. In 2006, 30 tests were planned for level one, 19 tests for level two, and 17 tests for level three. Cost recovery pays for only about one quarter of the total cost of testing per person. The trade standards implicit in the testing system have become an important unifying theme for all parts of the TVET system. All providers from nonformal to technical colleges use the standards.

The Department of Labor in Kiribati operates a national skills testing system in five occupational areas, covering about 100 people a year. Samoa has a system of trade testing panels to assess the achievements of apprentices upon completion of their training. The Labor Division in Solomon Islands operates a National Trade Training and Certification Unit. It provides national recognition trade testing and certification to grade tradespeople in accordance with degree of proficiency and competency, and to encourage motivated tradespeople to develop skills and undergo trade testing to upgrade skills. Vanuatu has closed its Trade Testing and Certification Unit partly because of problems in updating equipment. Presumably, VNTC will take over the function of quality assurance and recognition of prior learning. Finally, the Palau Community College is an approved testing center for the National Occupational Competency Testing Institute (US). The institute examinations are offered at two levels—job-ready and experienced workers.

Rural and Informal Sector Training

Training for the rural and informal sector in the Pacific forms part of the wider nonformal education subsector and continues to be provided mainly by nongovernment, faith-based, and private organizations and institutions.

Governments support informal sector training either by subsidizing NGO-run programs, as in the Cook Islands, Nauru, Solomon Islands, and Tuvalu, or by organizing short courses through conventional TVET institutions, e.g., the VIT outreach program in Vanuatu, T3 short courses in the FSM, and the Advanced Vocational Training Program in the Fiji Islands. In addition to government funds, direct contributions by NGOs, community fund-raising activities, and student fees are the principal sources of recurrent finance for informal sector training.

Rural women and unemployed youth are the main target groups in all PICs. Nevertheless, women tend to be underrepresented in or absent from most technical skills training programs and their participation is confined largely to traditional gender-related subjects.

Surveys of rural training needs in PNG, Solomon Islands, and Vanuatu point to three main categories of skill needs at the village level: technical skills for community development projects and artisan-based occupations in the local economy, small business and management-related skills for self-employment in agricultural-based microenterprises, and basic livelihood skills for improving the quality of life in remote areas where economic opportunities are scarce.

Informal sector training in the atoll economies (Kiribati, RMI, and Tuvalu) tends to be limited and concentrated in the capital or the main island. No atoll state has developed a cost-effective outreach to provide training to remote islands.

Where RTCs exist, e.g., PNG, Solomon Islands, and Vanuatu, the curricula are geared toward conventional occupations in the formal economy rather than to income-generating opportunities in the rural informal sector. They tend to function mainly as alternative modes of conventional education in rural areas for those pushed out of the formal school system.

Access to credit and market linkages are two important factors that condition the success of training for self-employment. In the RMI, the Ministry of Resources and Development estimates that only 10% of those who participate in its self-employment training programs actually start their own businesses, and in the Fiji Islands, only 21% of graduates from the 2004 Ministry of Youth and Sports training program began self-employment.

Small-scale credit or microfinance programs are available in most countries in the region, e.g., PNG (Ginigoada Business Development Foundation), Samoa (Women in Business), and Vanuatu (VanWoods), but their coverage is limited and confined largely to nonrural target groups.

Technical cooperation projects have not only played an important role in establishing training infrastructure for the informal sector but also in providing resources for developing innovative methodologies and approaches in countries such as the Fiji Islands, RMI, PNG, and Vanuatu. However, to be successful, these initiatives require a strong institutional counterpart that can develop and provide the training support services implied in these projects.

Providing rural and informal sector training in the Pacific remains highly fragmented and largely uncoordinated at the national level. Few countries—PNG and Fiji Islands are the exceptions—have sought to develop a policy framework to guide decision making vis à vis priorities, implementing strategies, and allocating resources.

Constraints include low funding priority accorded to rural and informal sector training by governments; weak links to local labor and product markets and the agriculture sector; lack of follow-up monitoring and evaluation; unequal access to training and gender discrimination; absence of cost-effective delivery systems for remote populations; limited access to credit for self-employment; limited NGO training capacity; and outdated and inappropriate training hardware and software.

TVET Costs, Financing, and Expenditures

TVET Financing

PICs fit into two categories in education expenditure: those that rely mostly on their own funds and those that receive significant external funding for education and channel government funds to other activities. Countries also vary considerably in terms of the level of private and industry support to TVET through training levies, student fees, college-based enterprises, and industry support through apprenticeships. Generally, government education financing (Table 3.6) constitutes a substantial share of GDP and the budget, suggesting limits to sustaining support to education in the context of a growing population. Difficulties are particularly likely to arise in the absence of significant funding for small island states. TVET expenditure is low and likely to be affected by increasing demands for primary and secondary education by rising populations. Ministries other than the Ministry of Education fund training activities, such as marine/fisheries colleges and informal sector training, thereby generating additional government financing of the TVET sector.

Table 3.6 provides data on the financing of education and the TVET sector in PICs. Countries that do not receive external funds demonstrate strong government financial support for education, as evidenced by the ratio of education expenditure to total government spending, which exceeds 15% except for Tonga. Countries that rely heavily on external rather than their own funds for education include the RMI and the FSM (which receive US grants). Direct government outlays on education in the FSM

Table 3.6: Financing of TVET in the Pacific

Countries	TVET as Share of GDP (%)	TVET as Share of MOE Expenditure (%)	MOE Expenditure as Share of Budget (%)	MOE Expenditure as Share of GDP (%)
Cook Islands	0.2	6	—	3
Fiji Islands	0.4 ^a	4	19	10
Kiribati	0.6 ^b	3	25	21
RMI	1.8 ^c	24 ^d	12 ^e	24
FSM	1.4	7	—	19
Palau	3.3 ^f	54 ^g	11	7
PNG	0.5 ^h	13	16	8
Solomon Islands ⁱ	3.5	40	25	9
Tonga	0.3	9	13	3
Tuvalu	—	—	23	—
Vanuatu	0.6	3 ^j	26	12

a If the training and productivity authority of Fiji is included, this increases to 0.68.

b Data for Tarawa Technical Institute only. If the Fisheries Training Center and the Marine Training Center are included, the figure rises to 2.0.

c Includes the National Training Council, National Vocational Training Institute, and the business studies/computing part of College of the Marshall Islands; however, if only the National Training Council is included, then the figure is 0.5%.

d Includes the National Training Council, National Vocational Training Institute, and the business studies/computing part of College of the Marshall Islands; however, if only the National Training Council is included, then the figure is 2%.

e Pertains to government funds only—excludes external funds.

f Palau Community College only, which also offers bachelor degree courses.

g Ministry of Education expenditure here also includes external funding through the Compact.

h Vocational centers and business and technical colleges only. Excludes the National Training Council.

i TVET reference is for all tertiary sectors so the actual TVET expenditure is much smaller.

j Vanuatu Institute of Technology only; 6% for all TVET-related activities.

Note: Data are not available for all countries in the study.

FSM = Federated States of Micronesia, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, TVET = technical and vocational education and training, — = data unavailable, % = percent.

Sources: In-depth and background reports; and World Bank, 2007.

amount to about 2% of total expenditure. The RMI government contributes about 14% to total educational expenditure.

Ratios of education spending to GDP are generally high with the highest rates occurring for Kiribati, RMI, and FSM. This arises from a strong commitment to education in the context of limited economies. US support makes this possible in the RMI and the FSM, but education expenditures represent a substantial burden for Kiribati. Declining resources per capita in general education adversely affect the overall standard of education and pose greater difficulties for post-school education. Already, limitations with school education in Kiribati, RMI, and Tuvalu are being identified. These are likely to impact severely on support for the formal TVET sector as governments weigh the costs and benefits of the formal TVET sector in relation to general secondary education.

Major differences in classification of TVET mean that data on expenditure are not always comparable. A comparison is easiest where there are similar TVET institutions as with the Cook Islands, Fiji Islands, Kiribati, PNG, Samoa, Tonga, and Vanuatu. In these countries, TVET expenditure as a share of education spending is lowest in Kiribati and highest in Tonga and PNG. Kiribati, with a small national population and limited economic activity, has few jobs in the formal wage sector. Consequently, few benefits are available in establishing a substantial formal TVET infrastructure aimed at producing skilled labor, which has little opportunity for employment. PNG, on the other hand, has a significant wage employment sector with a substantial range of jobs, and hence, can support a major TVET sector.

The data indicate a significant share of education funding provided to TVET in Solomon Islands. However, this supports a range of activities in higher education including SICHE, which provides a broad range of qualifications including those that are higher education, such as education and nursing. External funding allows the RMI—if the College of the Marshall Islands (CMI) is included—and the FSM to contribute significantly to TVET, although no government institutions in the RMI exist to provide industrial and construction skills.

In terms of GDP, countries with the highest ratio of TVET funding to GDP are those that have the most limited economies—Kiribati, RMI, and FSM. Additional financing of TVET (not captured in the data above) comes from other ministries. A range of ministries provides training for the informal and agricultural sector. Of particular importance are the marine and fishing training colleges that are financed by ministries other than the education ministry and, hence, are not captured in the ratio of TVET expenditure to MOE spending. Outlays can be significant, as in PNG and Kiribati. Overall expenditure for the Marine Training Center in Kiribati, for example, exceeds that of the general TVET institution, Tarawa Technical Institute.

Training levies and student fees suggest a sustainable TVET system. These sources of income reduce dependency on government funds. In this sense, the Fiji Islands and PNG possess sustainable TVET systems. Fiji Islands uses the levy¹ directly for training in TPAF, fostering an industry training culture. PNG has not used the levy directly for training purposes. Levies placed on shipping companies in PNG also help support the PNG Maritime College. Kiribati too gains funds from shipping companies to help operate the maritime and fishing institutes. Similarly, fishing revenue in the RMI is used to fund the Fisheries and Nautical Training Center.

1 Employers pay a 1% training levy on their payroll. Employers can subsequently claim these funds back based on the amount of training carried out.

As seen in Table 3.7, student fees constitute a major source of finance for the Fiji Islands, PNG, Solomon Islands, Tonga, and Vanuatu. TPAF in the Fiji Islands primarily funds its formal courses from student fees, but funds from the levy on training help support at least some infrastructure. Of less importance for financing generally are college-based enterprises. Nonetheless, as demonstrated by the St. Joseph's Catholic Technical School (Lae, PNG)—which derives 9% of its revenue from production—the income enables substantial consumables to be used in instruction.

A further factor in financing TVET training is the degree to which the private sector is involved in formal TVET training. It is most developed in PNG, with TVET training carried out in a wide range of fields including technical trade training. Notable examples are Ok Tedi Mining and Hastings Deering (PNG) Ltd. In the Fiji Islands and Vanuatu, private sector investment is most likely in occupations related to business and personal services. Such investment in TVET mobilizes substantial additional resources, thus adding further strength to TVET financing. Evidence of support to TVET is also seen in the apprenticeship systems in Kiribati, Fiji Islands, and PNG. Apprenticeship results in significant on-the-job-training in public and private sector enterprises to achieve skilled

Table 3.7: Major Sources of Revenue for Pacific Island TVET Institutions

Country	Government	External	Student Fees	Training Levy
Cook Islands	x	x		
Fiji Islands	x		x	x
Kiribati ^a	x			
RMI	x	x		x ^b
FSM	x	x		
Nauru	x			
Palau	x	x	x	
PNG	x		x	x
Samoa	x			
Solomon Islands	x	x	x	
Tonga	x		x	
Tuvalu	x			
Vanuatu	x		x	

^a Although there are no training levies, levies are collected from foreign fishing fleets. Revenue from this contributes to the funding of the Marine Training Center and the Fisheries Training Center.

^b Levy on wages of foreign workers in the country.

FSM = Federated States of Micronesia, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, TVET = technical and vocational education and training.

Source: In-depth and Country Studies (2006–2007).

labor. Overall involvement in apprenticeship represents significant public and private sector investment in TVET beyond MOE funds.

Financing of Nonformal Sector Training

Most countries fund nonformal training through ministries dealing with education and youth affairs. A range of other ministries, including those for natural resources, women, the interior, commerce and industry, and labor also fund training dealing with their specific focus, but this varies from country to country. The activities are often undertaken in association with funding from development partners. In many countries, religious organizations and NGOs fund nonformal training. The large number of agencies involved indicates that PICs generally lack a nonformal-sector training plan and an integrated approach to nonformal training.

Costs of Training

Data on costs show that Pacific TVET institutions spend most of their funds on salaries (Table 3.8). This can mean, especially in Tonga, that few funds remain for materials and consumables essential for practical exercises. Not all institutions have precise data about consumables. However, a useful comparison is the various TVET institutions in the Fiji Islands. TPAF focuses strongly on practical exercises and has a ratio of salaries to consumables of 4:1. FIT, on the other hand, has a ratio of about 23:1, reflecting much less opportunity for students to undertake practical exercises. The MOE vocational centers fare worse with a ratio of about 35:1, indicating a real paucity of materials for practical exercises. Apart from TPAF, the only institutions that appear to be adequately resourced with materials for practical exercises are the St. Joseph's Catholic Technical School and the Maritime Training School in PNG, and Waan Aelon in Majel (WAM) in the RMI. St. Joseph's achieves its level of consumables by operating a small-scale factory; WAM does it through grant funds as well as income generation, which includes sailing canoe charters (mainly traditional) and sales of trainee-made museum-quality outrigger models. Institution budgets also reveal little attention to maintenance other than repair of critical infrastructure.

Costs per equivalent full-time student (EFTS) vary substantially from country to country as seen in Table 3.9. The most costly institution is the PNG Maritime College, which is classified as a higher-education institution. The high costs are caused by staff wages, the cost of consumables, and the overall upkeep of highly sophisticated infrastructure. Similarly, the Kiribati Marine Training Center also displayed high costs though it trains a lower "rating," level. The most costly countries are the Compact member states of the

Table 3.8: Expenditure Items of Key TVET Institutions (%)

Country and Institution	Staff	Consumables	Goods/Services	Others
Technical institutes				
Fiji Islands–Fiji Institute of Technology	68	3	8	21
Kiribati–Tarawa Technical Institute	61		27	12
RMI–College of the Marshall Islands	67	3	10	20
FSM–Community College of FSM	91		9	
Palau–Community College	58	16	6	19
PNG–Lae Technical College	49		31	20
Samoa–National University of Samoa, Institute of Technology	68	5		27
Vanuatu–Vanuatu Institute of Technology	60	12	28	
Trade training institutions				
Fiji Islands–Training and Productivity Authority of Fiji	56	14	9	21
Fiji Islands–MOE vocational centers	69	2	<1	29
RMI–Waan Aelon in Majel	68	7	13	12
PNG–St. Joseph's Catholic Technical School	44	12	26	18
Tonga–Tonga Institute of Science and Technology	91		6	3
Tonga–Short-Term Training Center	58		30 ^a	12
Marine colleges				
Kiribati–Marine Training Center	68		26	6
PNG–Maritime Training Center	57		24	19

^a Includes 3% for maintenance.

FSM = Federated States of Micronesia, MOE = Ministry of Education, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, TVET = technical and vocational education and training, % = percent, < = less than.

Sources: In-depth and background reports.

Table 3.9: Annual Cost per Equivalent Full-Time Student

Country and Institution	Year	EFTS amount	Currency	EFTS in \$ ^a
Technical Institutes				
Fiji Islands – Fiji Institute of Technology	2005	2,412	F\$	1,471
Kiribati – Tarawa Technical Institute	2006	2,300 2,900	A\$	1,861 2,346
RMI – College of the Marshall Islands	2007	11,000	\$	11,000
FSM – Community College of FSM	2005	11,761	\$	11,761
Palau – Community College ^b	2007	9,532	\$	9,532
PNG – Lae Technical College	2006	5,300	K	1,798
Samoa – National University of Samoa, Institute of Technology	2005	5,002	ST	1,851
Solomon Islands – Tertiary Education ^c	2005	30,036	SI\$	4,214
Tonga – Tupou Tertiary Institute	2005/06	1,955	T\$	964
Vanuatu – Vanuatu Institute of Technology	2005	199,470	Vt	1,933
Trade training centers				
Fiji Islands – Training and Productivity Authority of Fiji	2006	3,075	F\$	1,875
Fiji Islands – School Annex	2005	1,540	F\$	939
RMI – Waan Aelon in Majel	2006	13,000	\$	13,000
PNG – St. Joseph's Catholic Technical School	2006	1,500	K	509
Tonga – Tonga Institute of Science and Technology	2005/06	713	T\$	352
Marine colleges				
Kiribati – Marine Training Center	2006	6,600	A\$	5,350
PNG – Maritime Training Center	2006	52,000	K	17,642

a Conversion on 1 April 2007.

b Based on 513 total enrollments. The real figure will be higher if these are not all full time.

c Based on per capita government expenditure and per capita personal cost.

A\$ = Australian dollar, EFTS = equivalent full-time student, FSM = Federated States of Micronesia, F\$ = Fiji dollar,

K = kina (PNG), MOE = Ministry of Education, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands,

SI\$ = Solomon Islands dollar, ST = tala (Samoa), TVET = technical and vocational education and training,

T\$ = pa'anga (Tonga), Vt = vatu (Vanuatu).

Sources: In-depth and background reports; and World Bank, 2007.

RMI and the FSM. Low numbers of students per staff member in Waan Aelon in Majel and CMI largely explain the high relative costs. The data otherwise show that cost per EFTS for major technical institutes is \$1,500–2,000 per capita per year. Other exceptions are Solomon Islands, where funding is allocated to an institution classified as higher education, and institutions in Tonga. Other institutions such as vocational centers in the Fiji Islands and technical schools in PNG have EFTS costs substantially below those of the major institutions.

External Financing

External funding is an important component of finance in most states and enables various improvements and initiatives to take place without drawing significantly on government revenues (Appendix 5). International donors such as AusAID; European Union (EU); Japan International Cooperation Agency (JICA); New Zealand's international aid and development agency (NZAID); Taipei, China; and the US; as well as international financial institutions, especially ADB and the World Bank, play a considerable role in financing TVET for PICs.

The northern Pacific countries of the RMI, FSM, and Palau have compacts of association with the US, which funds most of their education budgets (more than 50% for the RMI and 90% for the FSM). The Cook Islands, Kiribati, Nauru, and PNG also receive large development assistance grants from AusAID, NZAID, and EU. The Cook Islands particularly depend on the EU and NZAID for TVET funding as only 23% of the TVET budget comes from government funds. JICA has paid for both Samoa and Tonga to extend and refurbish their technology institutes. The Fiji Islands is the recipient of funds from AusAID for the equipping of nine TVET centers and of technical assistance in entrepreneurship education and industry–school compacts. Kiribati has received EU help in constructing a new workshop at TTI. PNG receives a development budget that represents an additional 17% of the government allocation. AusAID is assisting Vanuatu—over 6 years, starting in 2005—with a TVET sector-strengthening program that seeks to improve TVET institutions, including nonformal institutions and VNTC. AusAID's short-term training program has enabled PICs, such as Kiribati and Tonga, to run programs not otherwise offered in those countries by their TVET systems.

Regional projects sponsored by the Commonwealth of Learning have assisted with funding for the establishment of PATVET and supported the development of open distance learning. The PRIDE project, funded by the EU and NZAID, offers substantial planning assistance to Pacific ministries of education though, to date, relatively little has been done in the TVET area. AusAID recently initiated assistance for postsecondary technical training by establishing the Australia–Pacific Technical College (APTC). APTC will eventually operate in four countries in the region to produce “work-ready” Pacific island graduates who meet Australian standards (Appendix 5).

Across the Pacific, most informal sector training is provided by NGOs, which are heavily funded by international development partners. ADB has provided grants and loans (RMI, PNG, and Tuvalu) for informal sector livelihood improvement projects and microcredit schemes. The Pacific receives one of the developing world’s highest per capita rates of funding from development partners, and some of this flows into the TVET area. Yet there is substantial scope for a coordinated regional approach by funding agencies and financial institutions to support long-term sustainable improvements in the formal and informal TVET sectors.

4

ANALYSIS OF TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING SYSTEMS IN THE PACIFIC



Overview

This chapter presents an analysis of TVET systems in the Pacific according to five criteria: economic relevance, quality, access and equity, organizational and management effectiveness, and finance and internal efficiency.

- (i) Economic relevance. Most countries report skills shortages partly because of emigration. However, surplus of rural labor in the informal sector is the larger overall challenge. Lack of information about labor market demands keeps most Pacific training systems operating in the dark. Employer involvement is essential to steer training supply in the right direction, but employers are not consulted sufficiently. Pacific training systems have had difficulties in making their programs flexible, up to date, and responsive to changing demands.
- (ii) Quality. Quality is increasingly important in TVET systems in the Pacific. Various systems of quality assurance are operating or being developed in the region. A prevocational course in secondary education is an appealing concept, but has been difficult to implement well. Vocational training systems vary markedly in quality. Postsecondary technical training, in contrast, tends to reach reasonable standards because resources can be concentrated in fewer institutions. Informal sector training has been successful in places, but it is difficult to maintain consistent quality.
- (iii) Equity. Access to TVET is low in total and highly imbalanced by geographic area, income group, and especially by gender.
- (iv) Organizational and management effectiveness. TVET is arguably the most difficult subsector to manage in the whole spectrum of education and training. Strengths exist in the organization and management of TVET systems in the region and several promising developments have taken place. However, unclear mandates, lack of coordination among TVET providers, and excessive centralization are important organizational issues. Two other organizational weaknesses stand out: supply orientation and insufficient resources to perform stipulated functions. TVET plans are necessary for strategic direction, but they have to be costed, budgeted, and implemented. TVET management varies because of inadequate standards, accountability, and opportunities for in-service training. Finally, lack of data and research on TVET is an almost universal handicap to progress.
- (v) Finance and internal efficiency. Public/donor financing for TVET is limited and, in some cases, declining. Countries will inevitably have to find ways to reduce dependence on government financing by mobilizing nongovernment financing. Limited public resources require greater attention to increased internal efficiency. Insufficient use has been made so far on financial transfer mechanisms, such as training funds.

Analytical Framework

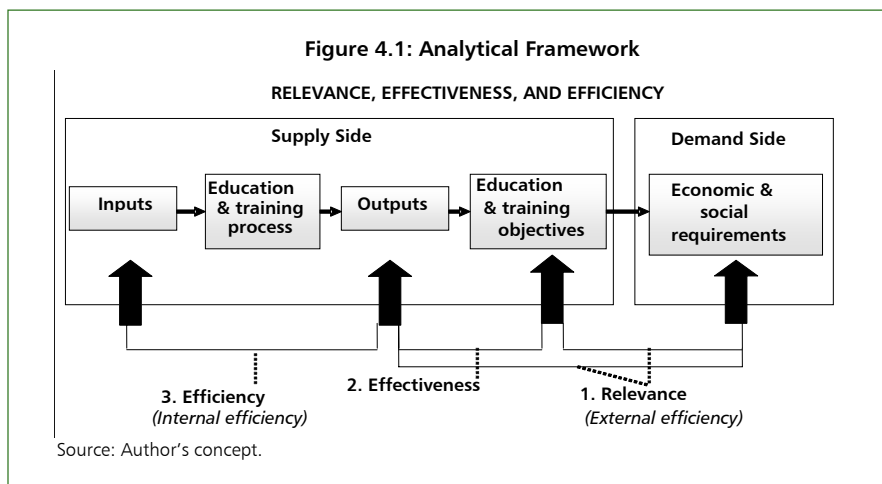
Five criteria are derived from the following analytical framework for the purposes of analyzing Pacific TVET systems.

“Relevance” is the relationship between training supply and demand, or between the objectives and outputs of the TVET subsector and economic and social requirements. It includes both economic relevance and social relevance, or access and equity. Questions of relevance take precedence over all others. If the system is not aimed in the proper direction, it matters little whether it is effective or efficient.

“Effectiveness” is the relationship between outputs and objectives. Something is said to be effective if it achieves its objectives. Effectiveness has two aspects: quality and organization/management. “Internal efficiency” is the relationship of inputs to outputs. Cost effectiveness is actually a matter of internal efficiency. Thus, the analysis is presented in terms of five criteria: economic relevance, quality, access and equity, organizational and management effectiveness, and finance and internal efficiency.

Economic Relevance

The main purpose of TVET is to provide knowledge and skills for trainees to be productive in jobs, either in the wage economy or in self-employment. A disconnect between the skills acquired and those needed in the labor market means the training could be wasted. Close linkage with the labor market is the first requirement of a successful system of skills development. The first criterion for evaluation of TVET, therefore, defines the relationships between the skills demand and supply.



Mismatches in Demand–Supply Balance

Mismatches in the demand–supply balance for technical skills are seen in many countries of the region, particularly those with emigration of labor or surplus of rural labor. The TVET systems in Kiribati and Vanuatu, though, in terms of the wage economy, are largely able to meet the countries’ quantitative skills needs, and no major shortages are reported. An ample supply of workers exists with some skills obtained informally or through a basic skills course. But some specific skills are in short supply in the formal sector, including chefs, electricians, maintenance and automotive mechanics, construction technicians, and managers. The construction sector has skills shortages for carpenters, joiners, sheetrock installers, and construction supervisors. Shortages appear for significant expertise and ability to perform to standards. Overall supply–demand balances are the exception in the Pacific.

Most Countries Reporting Serious Skills Shortages. The FSM acknowledges the demand for a skilled workforce, particularly in domestic services, such as home repair, electrical wiring, plumbing, furniture making, general maintenance, and repair. People reportedly have money to pay for these services, but they are unavailable. The low turnout of trained and skilled workers interacts with a reciprocal annual intake of cheap overseas labor in the same trades and occupational areas. Skill gaps in the Fiji Islands are important issues from employer perspectives. The main way for employers to recruit people with requisite skills—particularly in the tourism industry—is through poaching, which only raises wages and hurts the medium or smaller enterprises most. Reportedly, the Fiji Islands lacks mechanisms to reconcile supply and demand of skills, which means resources could go to areas not in shortage.

PNG faces a paradox in skills gaps. Substantial numbers of people graduate from training institutions, but industry complains about a lack of skilled workers and recruits foreigners to fill the gap. The paradox is a question of experience and expertise. Fresh graduates lack the attitudes needed in the workplace such as punctuality and general discipline. This occurs in part because the culture of the training institutions differs significantly from that in industry. Shortages exist for experienced skilled and semiskilled workers and supervisors. The industrial sector reports difficulties in recruiting plumbers, air-conditioning and refrigeration mechanics, welders, and electricians. In building construction, skills gaps are seen in finishing skills including tiling, plastering, and painting/decorating for high-value buildings such as hotels and embassies.

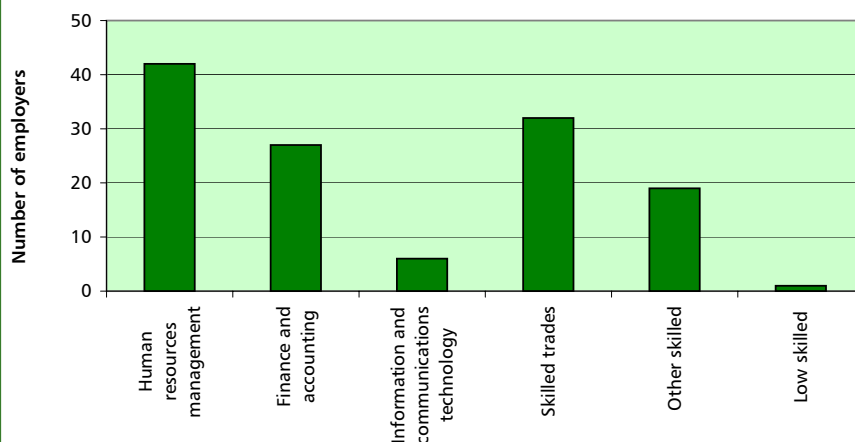
In the RMI, the output of technical and vocational skills undersupplies the domestic market, as evidenced by vacancies and increasing employment of expatriates. The limited scope and scale of the TVET supply chain produces limited outputs in terms of job-ready graduates. Output is particularly limited in traditional trades, such as construction skills. In Solomon Islands, the tourist industry reports that hotels, resorts, and restaurants

badly need operational staff, including maintenance workers, housekeepers, etc. Industry needs well-trained electricians, builders, bricklayers, mechanics, and ICT technicians. However, the current TVET system fails to produce these skills adequately. In Tonga, the following skills are in demand but no formal training is available: air-conditioning and refrigeration, plumbing, fisheries, and hairdressing. Tuvalu lacks a domestic source of training and only 4% of public scholarships for education and training are allocated to the private sector.

Skilled Worker Emigration. Emigration of skilled workers exacerbates shortages, particularly in PICs along the northern and southern rim (Chapter 2). Work experience is a key factor in demand for skills. Migration removes a significant proportion of workers who have acquired a reasonable level of expertise in the Cook Islands, Fiji Islands, Samoa, and Tonga. In Tonga, the continual flow of skilled workers to Australia and New Zealand has compounded the problem of skills shortages. For example, TIST could find a replacement for instructors in air-conditioning and plumbing who emigrated, causing a temporary suspension in training. Elsewhere, the RMI is unable to take advantage of its access to the US labor market to provide skills and secure well-paying jobs. Not all news is negative, however. Emigration reportedly keeps the demand high for enrollment at FIT and opens job possibilities for younger workers in the Fiji Islands.

Expatriate Employment. Employment of expatriates indicates significant skills shortages since work permits for expatriates are only issued in most PICs if employers can prove that they could not find anyone locally for the position. This constitutes a “labor market test.” In practice, this is not always followed, but employment of expatriates is still a good indicator of skills shortages. The employer survey found that 40% of employers had recruited expatriates to fill job vacancies (Voigt-Graf 2007a). The rates were particularly high in the Cook Islands and Solomon Islands and low in Kiribati and Tuvalu. Figure 4.2 shows the occupational distribution of expatriates hired in the past year. Human resource management and skilled trades were the top two categories.

Supply–Demand Imbalance. A major supply–demand imbalance results when the economy cannot generate enough wage jobs to absorb all those entering the labor market. Economic growth in most PICs can generate only a fraction of the new jobs required to meet annual increases in the labor force (Chapters 1 and 2). Additional employment opportunities, therefore, must be created by using informal sector training to promote self-employment in the local economy and by increasing the income-generating potential of subsistence agriculture. Moreover, training for the rural and informal sector suffers from a lack of prominence in the training agendas of most countries. As a result, such training receives inadequate public funding and policy attention to meet the needs of the great majority of unemployed, youth, women, and rural poor in the Pacific.

Figure 4.2: Expatriate Recruitment in the Past Year

Source: Voigt-Graf, 2007a.

The majority of those entering the labor market will have to survive in the informal economy. This applies particularly to group 1 countries—PNG, Solomon Islands, Vanuatu—and even the Fiji Islands. In PNG, less than 15% of total employment is in the modern sector. An estimated 50,000 school-leavers enter the labor market annually, competing for only about 1,000 new wage jobs.

The labor market of the Fiji Islands also suffers a significant imbalance between the supply of and demand for labor. A surplus exists of labor market entrants with meager skills and experience, who do not satisfy the important demand for skilled personnel. Each year, over 17,000 new entrants join the labor market in the Fiji Islands, including about 14,000 school-leavers. The prospect of these young school-leavers getting paid work in the formal economic sector is limited. In 2004, about 4,000 new jobs were generated by the economy and 5,000 vacancies were created from emigration and natural attrition in the labor force. Therefore, wage jobs were available for only about half those entering the labor market. Most of the rest had to find work in the informal sector.

In Vanuatu, with the economy producing less than 700 new wage jobs each year and the annual output from the education system approaching 3,500, opportunities for school-leavers to access jobs in the formal economy are meager.

Elsewhere, the RMI lacks a system of imparting livelihood and income-generation skills to unemployed youth. In Solomon Islands, little attention has been given to how training in RTCs could enhance the livelihood of trainees and their families. Tuvalu lacks any means of training for the informal sector and livelihoods. In Vanuatu, though agri-

cultural development is the top government priority and agriculture the main employer, little training in this area is provided. Yet, on the other side of the coin, financial incentives that would stimulate demand for such training are lacking. Major gaps exist in income-generating activities in rural areas. RTCs tend to be directed exclusively at the youth; as a result, adults lack access to skills development. The limited agricultural training that is there concentrates on production and neglects agribusiness and food processing.

Youth Unemployment. This is a particular issue in urban areas, e.g., in Solomon Islands and Tonga; and governments in the region are giving considerable attention to the matter. It is a recurring concern throughout the Pacific Plan and there is widespread concern throughout the region about the link between TVET, youth, and lack of economic opportunities. Sometimes the simplistic view is expressed that if all unemployed youth could have some skills training, the problem would be solved. Youth unemployment, however, is not a reflection on the TVET system. It reflects the economy failing to generate enough decent jobs in relation to growth in the labor market. Attempts at training youth in crash, sometimes massive, programs have failing records the world over.¹ Vocational training for youth is most likely to succeed in employment and earnings when it is provided as part of a comprehensive package that includes internships, performance incentives, employment services, counseling, job search, and livelihood skills. Still, training for the informal sector can help people acquire skills for self-employment, income generation, and sustainable livelihoods in rural areas, particularly when accompanied by access to credit.

Economic relevance of TVET systems requires three things: (i) labor market information, (ii) employment orientation in guiding and directing the TVET system, and (iii) properly oriented, flexible supply response by training providers. Each is examined in sequence below.

Lack of Information on Labor Market Demand

Most Pacific training systems operate in the dark. The Fiji Islands lacks a functioning labor market information system to provide input to the training system on the nature and extent of skills shortages and surpluses in the economy.² Kiribati has no system of review of labor market needs. PNG lacks a labor market system and relevant information, and no labor market survey has been conducted recently for the modern sector. The RMI lacks an adequate and comprehensive labor market information system. In Tuvalu, lack of demand information handicaps the allocation of overseas scholarships.

However, important exceptions exist. Detailed surveys have been carried out on the informal sector in PNG. These surveys have provided important information on training

¹ See Betcherman et al. (2004) and World Bank (2006, 91–92).

² The Ministry of National Planning reportedly has good data on labor supply, but not on demand.

needs and skill requirements. Still, training providers are servicing rural areas without information on the types of technical and business skills needed for self-employment in the rural sector. In Samoa, the Ministry of Commerce, Industry, and Labor undertook a series of labor market surveys in 2000, 2001, and 2004 that identified training needs by sector. In Tonga, the 2005 business survey by the Ministry of Labor, Commerce, and Industry indicated the scope and extent of unfilled vacancies. In the Fiji Islands, TPAF undertook the following activities in 2006 to understand demands better: (i) held 15 industry-focus group meetings; (ii) undertook more than 550 industry visits to gauge training needs; and (iii) carried out a training needs survey, to which more than 350 companies/organizations responded. Vanuatu conducted a survey on the informal sector and training needs in 2001, the results of which are still valid.

The Solomon Islands carried out training needs surveys of employers in both the formal and informal sectors as part of the analytical work to support the National Skills Development Plan. The results are as follows: the informal sector has three general types of skills training requirements, including skills required to (i) improve the general quality of village life (through, for example, electrification and access to safe water); (ii) prepare young people to find wage employment in rural industries such as logging and mining; and (iii) promote village-based enterprises to provide self-employment and supplement family incomes.

In the 122 villages surveyed for the study, about 80% of interviewees reported that they were currently trying to implement community development projects requiring specialized skills. In addition, about 60% of their stated needs fell within three major occupational categories: forestry/logging, farming (both plants and animals), and construction. The survey also identified 11 job categories where many young people might be able to find employment: farmer, teacher, housekeeper/home-duties, shopkeeper/market vendor, carpenter, fishing, police/security officer, nurse, mechanic, chainsaw operator, and timber miller (World Bank 2007, xii).

Information about the absorption of training output/graduates in the labor market is essential. This is done through “tracer surveys” that track the destination of graduates in the market. The Fiji Islands has little information available about the destination of graduates from skills training.³ Reportedly, emigration of skilled workers makes it difficult for TPAF to track its graduates. Kiribati, similarly, has little information about the outcomes of training. In PNG, training institutions have virtually no statistical or systematic qualitative data on what happened to their graduates upon completion of training. Training providers thus have little information about the markets, occupations, salaries, and performance of graduates. In Samoa, tracer studies have not been carried out yet.

3 TPAF is undertaking a tracer survey of a sample of graduates of its various training programs and apprenticeships. The results are expected by the end of 2007.

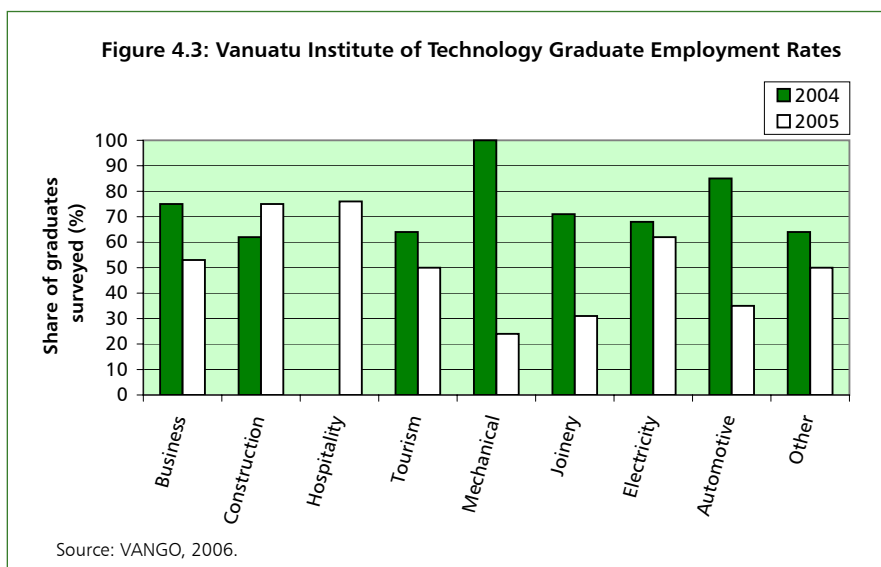
In Tonga, most TVET providers have not constructed tracer studies of their graduates, but TIST did survey how well students valued their training.

Three countries have exhibited good practice by undertaking tracer surveys recently: Solomon Islands, Vanuatu, and Palau. Solomon Islands carried out tracer studies on tertiary graduates and those who have completed informal sector training.⁴ In 2006, the VIT traced 76% of its graduates from 2004 and 2005. Employment rates varied substantially by field for the classes, as shown in Figure 4.3:

Overall, about two thirds of the graduates were in some form of employment, but graduates of 2004 fared better than those of 2005. This may reflect time required to find work—the study was carried out only 6 months after the 2005 students graduated—or a worsening job market. Employment by field was consistently strong in building and construction and in electricity. However, employment rates dropped dramatically in mechanical and engineering, joinery, and automotive, and even fell slightly in tourism and business studies between the 2 years. Of the graduates employed, 96% worked in private enterprises.

The tracer study of SICHE found even stronger employment rates for graduates, including 91% of the 2003 graduates and 93% of the 2004 graduates. Employment rates by school were as follows (Figure 4.4):

Virtually all SICHE graduates from the education and nursing schools were employed. One reason for this is that a very high proportion of those graduating in these two fields (100% of employed nurses and 79% of employed teachers) found jobs in public



service. Within the School of Industrial Development, more than half of those employed were working in private enterprises and 12% were self-employed.

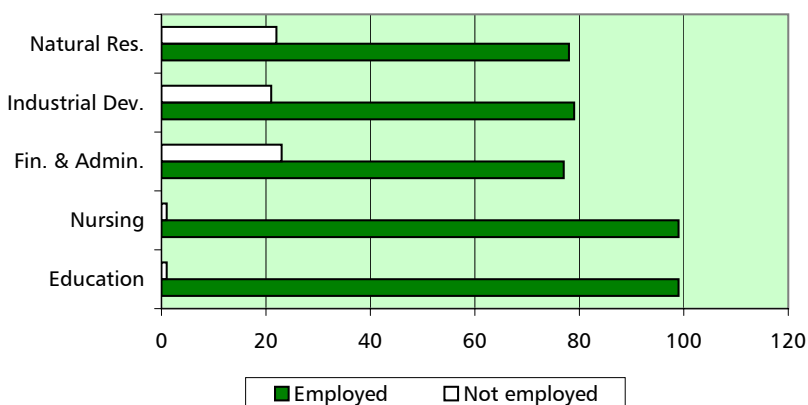
The Palau Community College collected tracer information of its 2003–2005 graduates. The data showed that about 60% were employed, Thirteen percent had moved off the island, and 16% could not be traced. Fewer than 3% of the graduates were unemployed (Takashy 2007a).

These examples of good practice showed relatively good to strong employment rates for tertiary graduates, and that the graduates tend to remain in urban areas (39% for SICHE and 87% for VIT).

Necessity for Employer Involvement

Training Organizations' Supply Orientation. Employers, representing the demand for skills, are inadequately represented and boards tend to be dominated by government representatives. Employers in the boards of the three NTCs in the RMI, PNG, and Vanuatu are in a minority compared with bureaucrats. The VIT board also appears to be weak on employer representation, though it is training mainly for the small wage sector of the economy. The exceptions to this pattern seem to be TPAF contacts with industry, the FIT board. Originally, two thirds of the members were permanent secretaries of government, but now the proportion has reportedly been reversed.

Figure 4.4: Enrollment Status by SICHE School, Solomon Islands, 2003/04



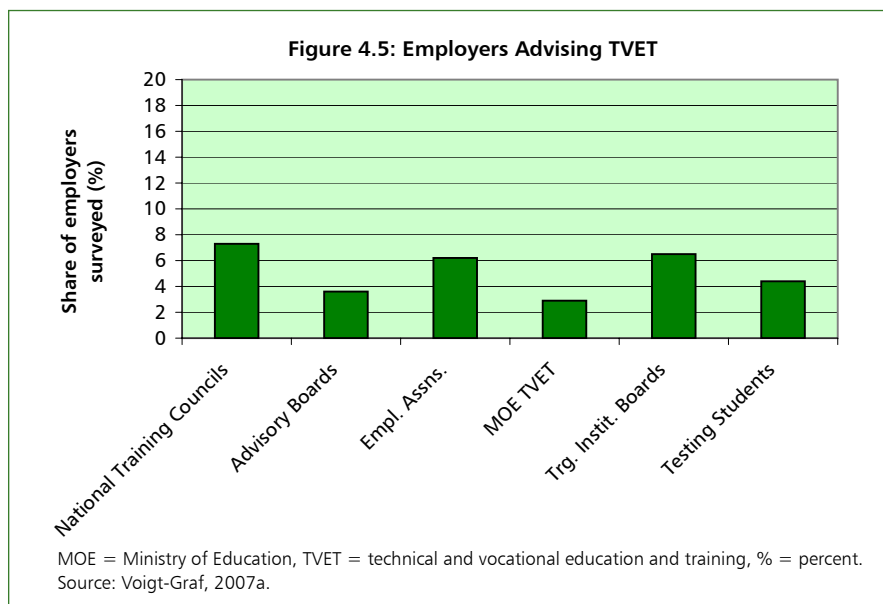
Fin. & Admin = Finance and Administration, SICHE = Solomon Islands College of Higher Education, % = percent.

Sources: World Bank, 2007; Figure 8.6.

Limited Employer Involvement. The employer survey found that relatively few employers participated in advising TVET systems in the Pacific. As shown in Figure 4.5, fewer than 7% of employers advised TVET through national training councils, advisory boards, or employment associations. Just 3% advised ministries of education on school curricula and 6.5% on advisory committees of training institutions. Only 4% participated in the testing and evaluation of TVET students.

In the Fiji Islands, MOE reportedly has little contact with industry and gives its programs largely in isolation from the labor market. In contrast, FIT uses heavy employer representation on its board and industrial advisory committees to check the relevance of its programs, while TPAF maintains close relationships with employers through program advisory committees and its contact with enterprises on productivity enhancement. In Kiribati's TTI, processes for industry involvement are not formalized. Industry involvement is needed in developing curriculum documents. In Nauru, the Government runs education and training without dialogue with stakeholders; what little training is done does not include packages developed in consultation with industry. PNG employers are inadequately involved in advising and directing formal TVET provision. For example, employers constitute a minority on the NTC board. The same applies to RMI where only two employers on the NTC board have little opportunity to influence training.

Solomon Islands reports little involvement of employers in developing skills in the country. The Chamber of Commerce, with 72 members, is not involved in training



programs at SICHE, RTCs, or community-based training centers. Sometimes it is a challenge to get employers interested in TVET. Tonga reports difficulties in making employers interested in contributing to TIST curriculum revisions. This lack of participation is to be addressed in regulations for the planned National Qualifications and Accreditation Board, where employers will play a key role in curriculum development. Vanuatu, too, lacks enterprise involvement in advising and directing TVET, as exemplified by low employer representation on the NTC and VIT boards. Moreover, industrial advisory committees do not meet regularly at VIT. On the other hand, the Vanuatu qualification framework criteria for accreditation of training courses require ratification by employers.

A Strength of TVET in the Pacific. Workplace attachments establish employer contact at enterprise level. In the Fiji Islands, training by FIT, MOE, and TPAF all include workplace attachments as integral parts of their programs. In doing this, they have to overcome obstacles, such as the need to insure all workers and include them in the national pension scheme. The Fiji Islands and PNG apprenticeship schemes, by definition, are founded on extensive on-the-job training. In PNG, widespread efforts provide workplace experience as part of training. In Samoa, both NUSIOT and Don Bosco require students to spend time in work experience with industry as part of the curriculum. Between 70% and 80% of students are then offered jobs by their employers after graduation. In Vanuatu, job attachments are also an integral part of studies at the VIT, but 1 month is perhaps insufficient.

Informal sector training needs to be closely linked to the world of work if it is to achieve credibility and long-term sustainability. Partnerships between training providers and the private sector should be promoted wherever possible as a means of improving the relevance and external efficiency of informal sector training.

Lack of Training System Responsiveness to Changing Demands

Current training programs are often too long and rigid. In PNG, the vocational centers run the same standard 2-year program every year with little attention to their outcomes and impact. Arrangements for staffing at vocational centers are inconsistent with a responsive training approach. No possibility exists to hire local craftspeople for short assignments. Courses are offered—such as welding—because staff are on the roster, regardless of the labor market need. In Samoa, most TVET providers use traditional time-based courses. Closing a program to open a new one in response to market changes is very difficult. Providers prefer to offer a new one while maintaining the old ones because of the sunk investment costs, especially in trade areas. In Vanuatu, most TVET is long, e.g., the 2-year programs in RTCs. The training is too long and fails to achieve the performance required to ensure productivity in the labor market.

In contrast, vibrant private training markets tend to be more responsive to demands. The longevity and profitability of private training depends on good employment records for graduates. The private training market is growing in both the Fiji Islands and PNG. In contrast, the RMI lacks completely flexible, for-profit training providers. No training market exists whatsoever.

Several countries are already following good practices to make their training programs flexible and responsive. In Kiribati, TTI appears responsive to industry needs by offering full-time and part-time, long- and short-term courses, in both Tarawa and the outer islands. In PNG, some elements of certificate courses in technical colleges run based on competency attainments. In Samoa, TVET providers with competency-based training (CBT) curricula have full- or part-time courses that are more flexible. This facilitates adult retraining and upgrading programs. The new facilities for construction of hospitality and tourism training at NUSIOT were programmed through industrial advisory panels and stakeholder workshops. In Tonga, TIST courses are taught in modules and some are being taught in CBT mode. The VIT curricula follow a CBT approach. Vanuatu qualifications framework accreditation of courses requires that they be modular and competency based.

Properly oriented and up-to-date curricula are other aspects of responsiveness. In the Fiji Islands, employers complain that the present curriculum of FIT and vocational secondary schools tend to be theoretical and based on time spent, rather than being practical and based on competencies achieved. Curriculum updating is needed. For example, the franchise program on office technology includes shorthand, a skill that is little in demand in most businesses. In PNG, some observers state that the menu of vocational center courses has not changed much in 25 years. Provincial education boards often take a school orientation as opposed to a community training initiative. Though the vast majority of people work in rural areas and the informal sector, most training is oriented almost exclusively to wage jobs in urban areas. Little attention is given to the relevance of short courses to local labor markets, e.g., in agribusiness and food processing. Entrepreneurship training is underemphasized and underprovided.

In Kiribati, short courses conducted by TTI appear to be an appropriate approach for training for the cash economy. However, they are not based on an objective and systematic analysis of current needs and labor market demand. A more flexible approach would be to undertake training needs and labor market analysis, and develop short programs to target those skills of highest priority. A course may only need to be offered once every few years to satisfy the need. Trainers could be hired solely for the period of the program. Each year, a different list of short programs would be offered based on market analysis.

Examples of good practice include the use of the “develop-a-curriculum” methodology in Samoa to define training programs, involving employers in identifying training demands and the skills requirements for various occupations. The Vanuatu qualification framework and the competency-based curricula at VIT focus on outcomes, not inputs.

Two Conclusions

Overall, the analysis of economic relevance and labor markets leads to two main conclusions. The first is a need for the TVET sectors in each country to refocus their role in the context of emigration and the dominant role of the informal sector. The second is a need for TVET sectors to redirect their activity away from supply-driven programs to working collaboratively with industry and assisting them in skills formation, particularly expanding in-service and on-the-job training.

Quality of Skills Provision

Next to relevance, the most important criterion for successful TVET is quality. The purpose of TVET is to provide relevant knowledge and skills for employment and income generation. If the skills are not acquired, the money spent is wasted. Quality can be viewed as a function of inputs, processes, and outputs. An array of inputs is important in determining the quality of training provided, including the existence of employer-ratified standards; clear and attainable objectives; adequately prepared students on entry; trained instructors; appropriate training content with definition of associated learning outcomes; availability of tools, equipment, and supplies; assessment of performance against training objectives and standards; and strong management of the training process. Procedures to monitor and evaluate both the formative and summative results of training and feed the findings back into the design of subsequent activities are important quality-enhancing measures.

Few TVET systems in the Pacific report that they are receiving adequate inputs to provide quality instruction. Some quality assurance systems are operating and others are planned, but little can be said systematically about outputs because of lack of measurement.

Increasing Importance of Quality

Training in the Pacific must satisfy different markets such as international and internationally competitive local enterprises, and wholly domestic markets. The standards of quality may differ for each. In labor-exporting countries, TVET systems can earn high returns to the country through remittances and developing the skills of emigrants before they leave, enabling them to take up better-paying jobs. The TVET system must also produce

graduates able to participate in global labor markets. The standard of TVET has to rise to meet comparable international performance in key areas, e.g., construction, electrical and mechanical trades, as well as competency in English, math, and science.

Operation and Development of Quality Assurance Systems

Trade Testing Systems. These have been operating for decades in PNG and the Fiji Islands. In PNG, standards are in place for seven trade areas, as developed by NATTB. These provide benchmarks for training providers and goals to aim for. PNG trade testing under NATTB helps provide quality assurance. A system of skills testing exists through NATTB that provides quality assurance for training providers. In the Fiji Islands, TPAF is a respected agency providing trade testing. In the view of employers, obtaining qualifications through the TPAF trade tests is reportedly a close second to completing apprenticeship training. However, some questions have been raised about the level three skills tests and franchise arrangements, since its tests do not appear rigorous. A pass is possible even when tools and equipment are not up to standard. Some countries though, such as the RMI, have yet to develop an adequate testing and assessment system.

National Qualification Frameworks. NQFs that promise advantages are being developed, but must deal with complexity. These frameworks, typical of TVET in Australia and New Zealand, establish standards and processes for quality control. A qualifications framework has been established in concept in Vanuatu. In Samoa, the Samoa Qualifications Authority (SQA) has already been set up. Among other things, it will register and accredit training institutions, both public and private. In Tonga, a National Qualifications and Accreditation Board is being established. Other countries are also in the process of adopting national qualification systems for TVET, including the Fiji Islands and PNG. So far, NQFs are not being considered in Kiribati, Solomon Islands, or the northern PICs (probably because of their relationship to the US, which does not have an NQF). The South Pacific Board for Educational Assessment is working with PATVET to create a regional qualifications register as a first step toward a regional framework.

International experience suggests that NQFs offer several advantages.⁵ They can stimulate individuals to continue their education and training by establishing specific, clear steps on the ladder to higher qualifications and incomes. They can lead to cost-effective training by focusing on outcomes regardless of how the skills are obtained—in classrooms or out of school. They can also support efforts to level the conditions under which private and public institutions compete for public funds. NQFs stress the competencies acquired, not the avenues or ownership of the institutions that teach the skills. They can also promote equity through recognition of prior learning and skills acquisition. In

5 Johanson and Adams. 2004, 81. See also Cotes, 2006; and ILO, 2005 and 2006.

addition, they can be used as an important element in increasing labor competitiveness and mobility in the Pacific. NQFs are also able to promote job mobility, and therefore, increase labor market efficiency.

NQFs reflect a conceptual shift from the classical focus on the input process toward a more modern focus on outputs and a market-oriented policy agenda. However, NQFs are relatively new and little is known about their long-term effectiveness in developing countries. The NQF system has been criticized in the United Kingdom as possibly contributing to deskilling because of a narrowly defined concept of competencies, based on the performance of elementary tasks, rather than a wider range of comprehensive skills and knowledge.

There may also be overexpectations on NQFs and underappreciation of the work involved. The application of NQF models from Australia and New Zealand in other development contexts may be problematic because of the different, much weaker, education, economic, and institutional environments. NQFs are based on the assumption that the primary responsibility for training must rest with individuals instead of government, which may not be relevant for countries with low enrollments. NQFs may not be as relevant where the main problem is insufficient access to skills rather than improving the quality of assessment. Moreover, little is known about either (i) the costs of developing qualification criteria or assessment and certification procedures, or (ii) their impact.

The South African experience, in particular, has been a complex, bureaucratic, and slow process. The difficulties center on coordinating the multiple standard-generating bodies and managing the effectiveness of sectoral education and training qualification authorities. Success of any reform depends on interrelations between complexity of design and implementing capacity. The relative slowness in implementing some interventions in developing countries may be due to a weak institutional implementing capacity relative to the high level of complexity. In short, NQFs may end up imposing more regulations on training providers, which could reduce their responsiveness to demand.

Private Training Providers. Standards are being applied to private training providers, but these systems have been difficult to enforce. Assessing and accrediting such providers constitute an essential first step toward achieving minimum standards. MOEs are carrying this out in the Fiji Islands, NTC in PNG, and VNTC in Vanuatu. The lack of quality assurance on private training providers has been noted as an issue in the FSM. Registration of new schools or programs is wide open and discretionary. This opens possibilities for noncompliance and opportunistic ventures and phantom schools.

This review has found that, while desirable, it is difficult to operate quality assurance systems for private training providers. Effective monitoring and control require reasonable criteria and procedures, sufficient staff with expertise and training in assessing institutions, and funds to make periodic inspections. NTC in PNG has been trying to

do too much with too few resources. It reports inadequate staff capacity to carry out the assessments of training providers, courses, and trainers. It also lacks prosecutorial powers for institutions failing to register. As a result, there are substantial weaknesses in the registration process for private training institutions. Even some registered private institutions operate below acceptable quality and provide little value for money.

MOE in the Fiji Islands has also had difficulty in monitoring approved institutions to ensure that they maintain their quality levels. In Vanuatu, criteria for registration of training institutions seem far too sophisticated for the prevailing level of TVET institutions. A substantial backlog exists in processing applications for registration and accreditation. The new quality assurance agencies in Samoa and Tonga could learn from these experiences.

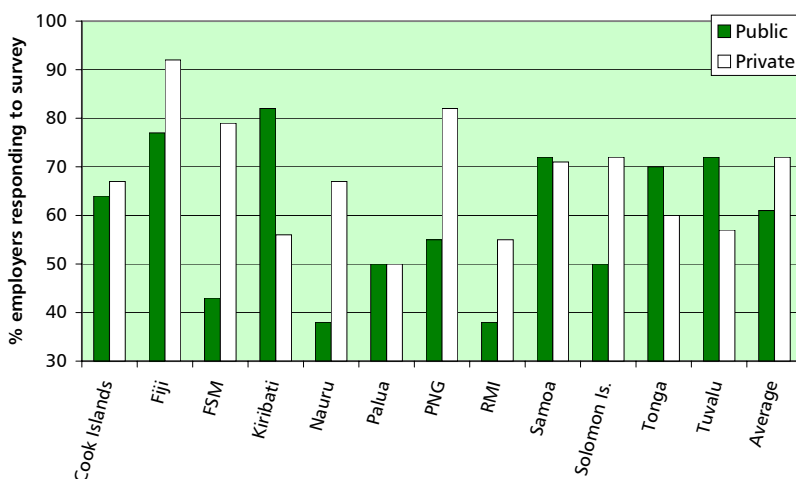
Comparisons differed widely by country (Figure 4.6). Employers rated the private training system higher in all countries, except Kiribati, Samoa, Tonga, and Tuvalu; and in the FSM, Nauru, and PNG, it was rated substantially higher. The Fiji Islands and Kiribati both rated public systems highly, as did Samoa, Tonga, and Tuvalu. The lowest ratings for public systems came from the RMI, FSM, and Nauru.

Still, when asked to evaluate the quality of TVET systems employers tended to rate nongovernment and private training providers more highly than public ones (Figure 4.7). Across the 12 countries surveyed, 39% of the employers rated the public TVET system as poor or very poor compared with 27% for private TVET; 22% of employers rated public TVET as good or very good compared with 35% for private TVET.

Quality Assurance. Some regional programs show exemplary quality assurance. The clearest example is the SPC maritime training system (Chapter 3). It is a superb example of internationally defined standards, content, and quality assurance processes that ensure adherence to international standards. Two other examples also indicate regional quality processes at work. The South Pacific Board for Educational Assessment and PATVET are in the embryonic stages of developing a regional qualifications framework. The Pacific Qualifications Register started by identifying existing training programs and classifying their levels. Moreover, the University of the South Pacific (USP) builds quality standards into its programs. USP has standardized certificate and diploma programs used throughout the Pacific.

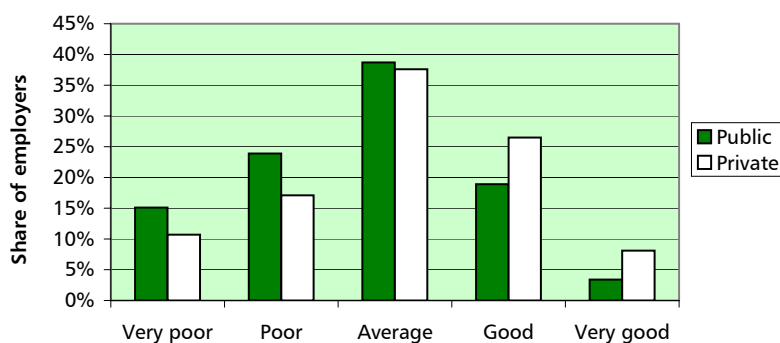
Prevocational Courses in Secondary Education

Almost all Pacific countries have some form of vocational education in secondary schools (Chapter 3). Adding prevocational courses is an idea with wide appeal. However, experience worldwide suggests that it is difficult to carry out prevocational programs well in countries with resource constraints. The Pacific region appears to be no exception.

Figure 4.6: Employer Evaluation of Public and Private TVET

FSM = Federated States of Micronesia, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, TVET = technical and vocational education and training, % = percent.

Source: Voigt-Graf, 2007a.

Figure 4.7: Employer Evaluation of TVET Systems (by ownership, 12 Pacific Island countries), 2006

TVET = technical and vocational education and training, % = percent.

Source: Voigt-Graf, 2007a, Tables 26–27.

Appealing Rationale.⁶ Many educational leaders in the Pacific are concerned because young people complete primary and secondary education without learning any occupational skills. It is thought that occupational skills will ease their transition into work when they leave school. Consequently, some policy makers want to change the curriculum of general education by adding vocational skills useful in agriculture, business studies, or construction, for instance. Such arguments have a long history of debate in education policy. The main reasoning behind such a policy is something like this:

- School-leavers need skills in the labor market to be productive and earn incomes.
- The general school curriculum does not provide sufficient occupational skills, and many graduates are unemployed.
- Therefore, the school curriculum should be revised to add vocational preparation so that graduates can function better in the labor market.

An update⁷ of the literature on vocationalization found that not much empirical research has been done on the topic since the 1980s.

Unmet Promise. “Economic relevance” has been the core argument among policy makers. Earlier research documented severe problems with the “economic-relevance” case. First, vocational subjects can be desirable on general education grounds, as part of a well-rounded education intended for everyone, if they could be afforded and provided without detracting from efforts to improve quality in core subjects in the secondary school curriculum. The skills learned may also have their private uses. Nevertheless, research has not borne out the labor market justifications for such subjects. So far, no study has shown that the kind of secondary school vocationalization that affects a minor proportion of the students’ total curriculum—e.g., five class periods a week, or even one third of the timetable—gives an advantage in finding work (let alone self-employment) within the first year or first few years after leaving school under severely depressed labor markets for youth. Exposure to vocational subjects may enhance interest in the types of work for which these subjects are broadly preparatory. However, tracer studies have failed to show a positive impact on actual access to work after students leave school. Neither have they found any strong effect on access to relevant further technical training.

High Cost of Vocationalization. Most vocationalization variants are much more costly per student class-period than mainstream general education subjects, mainly because of smaller classes and greater expense on facilities, equipment, and consumables. Unless a course can be taught to a full class of students (but few can), running costs will be more than twice that of non-laboratory academic subjects.

6 See footnote 5, pp. 87–89.

7 Lauglo and MacLean. 2005.

Gender Bias. The skills concerned are culturally identified with one gender only, e.g., domestic science and secretarial skills with girls, industrial arts subjects with boys.

Difficulties in Implementation. Vocationalization requires specially trained instructors, preferably with actual work experience in the types of skills being taught. Teachers with those qualifications are hard to recruit and retain. It also requires administratively difficult coordination of inputs. Time spent on vocational skills training can detract from the teaching of the basic academic skills that badly need improvement—also for labor market purposes. Finally, the “ethos” of the secondary school is academic. Practical subjects are prioritized less and accorded less status.

Vocationalization may be considered in some cases. The first is use of computers since they can be used for a variety of occupations and, potentially, across subjects within education itself. This is costly, however, and financial constraints limit the pace at which computers can be introduced. The second is low-cost programs that do not require workshops and are not gender specific, such as agriculture and business studies. Both are useful for broad occupational segments. However, in introducing any practical subjects, it is important to implement systematically rather than precipitously analyze cost implications before going to scale, and evaluate learning outcomes and impact.

Mixed Pacific Experience. Several countries have had difficulty in implementing prevocational programs in secondary schools. Prevocational teaching works well in Palau where the school-to-work scheme effectively blends practical courses and work exposure with academic courses. It is also extensive in the Fiji Islands where many students take prevocational courses at lower- and upper-secondary levels (Chapter 3). Still, quality varies greatly between schools. No norms have been established or applied uniformly across schools so that the equipment provision, for example, varies widely.

Other countries are less successful. In Nauru, unqualified teachers teaching practical subjects negatively affect the quality of training in secondary schools. Teachers lack curriculum guides on key learning outcomes. A lack of physical resources means students cannot easily do practical work, e.g., technical drawing. In Solomon Islands, few schools have the equipment and facilities to teach the subject properly. Even where there are facilities, the standard and quality are very poor. The academic or core subjects take precedence over TVET subjects because of the academic bias in the examination system. In PNG, secondary schools generally follow only an academic curriculum, but some private secondary schools—notably Don Bosco and Caritas technical high schools—have been successful in applying a balanced academic–practical curriculum. Only a few schools provide practical courses in Vanuatu, but the privately managed ones appear to do it well.

The policy lesson is that concentrated training in dedicated, stand-alone training institutions after the student has completed formal education may be a preferable avenue for skills development rather than adding small amounts of practical instruction

as part of secondary education. However, this alternative is unlikely to be feasible in the smallest island states. In Tuvalu, as in the other smaller Pacific islands such as Palau and Nauru, there is probably no alternative to providing vocational education through schools. The smaller countries can concentrate the necessary technically trained teachers and equipment in just one school.

Vocational Training Systems

Vocational training systems vary markedly in quality, as discussed in the following paragraphs.

Quality as Inputs

Standards. The existence of employer-ratified training standards is the first requirement for quality training. Trade testing provides standards for training in the Fiji Islands, Kiribati, and PNG. In the FSM, T3 reportedly follow International Labour Organization (ILO) standards. In the Fiji Islands, MOE-standard TVET curricula and centrally set exams help even the quality of training in vocational centers, and the FIT franchise system incorporates minimum standards. In the RMI, the standards and curriculum guidelines of the Fisheries and Nautical Training Center are based on international norms.

Instructors. The Fiji Islands and PNG have developed programs for training technical and vocational instructors, as has VIT. FIT has introduced a degree program in technical teaching. Postsecondary institutions in PNG have developed qualifications and programs for teaching vocational programs (e.g., University of Goroka and Don Bosco Technical Institute). Moreover, the technology department at the University of the South Pacific offers a bachelor's degree in education (technology) based on a 3-year program. Most students in the program are practicing teachers. However, vocational institutions still have shortages of qualified teaching staff. Many vocational teachers in the Fiji Islands are unqualified: 42% in office technology, 44% in automotive engineering, and 59% in carpentry and joinery. The FIT trade certificate is required for teaching in secondary schools; FIT leaves practical training to work attachments, which hold no guarantee of skills acquisition. TPAF emphasizes practical qualifications (Box 4.1). Its instructors must have completed apprenticeship. In addition, it registers industry-based instructors and training officers using criteria assessment of their competencies on the job and the need to complete training programs. This is part of the levy-grant system.

In PNG, most instructors have trade qualifications and practical work experience, thanks in part to a well-functioning apprenticeship system. However, 20% of vocational center instructors are not recognized as qualified. More important, upgrading of and retraining for teachers are insufficient, with no systematic means of providing ongoing professional development. Introduction of CBT in vocational centers has failed, in part,

for lack of in-service training of instructors in the new methodology.

Equipment and Financing. Staff of vocational training institutions throughout the Pacific complain almost universally about lack of equipment and financing. In the FSM, the T3 training facilities are poor and ill equipped. The Fiji Islands' vocational centers have variable equipment provision, even in franchise courses. Some centers lack essential equipment. Poorly equipped and resourced workshops were evident in many rural schools. Moreover, the majority of stationary equipment observed in workshops in secondary schools, e.g., carpentry, was inoperable. In PNG, vocational centers are characterized by poor standards of maintenance and lack of suitable facilities. Trainees have to observe work practice rather than do it themselves because of insufficient equipment. Even apprentices complain about lack of equipment in heavy machinery programs at the Mt. Hagen Technical Center. CBT could not be implemented in PNG's vocational centers partly for lack of teaching equipment to the standards required. In Vanuatu, VNTC has established a quality fund to provide incentives to training providers to raise standards. Only registered and approved institutions can apply, but a small amount of funds, apparently, can create strong incentives for quality improvement.

Box 4.1: Quality Skills Training in the Fiji Islands

The Training and Productivity Authority of Fiji (TPAF) is arguably the best provider of trade training in the region. Its trade testing system helps provide the standard for training. Instructors must have apprenticeship qualifications to ensure competence in practical activities. Employers are closely involved in reviewing training content, which focuses on practical applications. The system is reasonably well financed in part through a training levy on enterprises. The trade testing system provides both a goal and a standard for measuring acquisition of skills (outputs). The TPAF system is well managed and has an enterprise ethos in the organization. Finally, TPAF provides not just training but also a wide range of services to enterprises, including productivity advice. The TPAF model could be considered by other countries with a sizable private sector, such as Papua New Guinea, Samoa, and Solomon Islands.

The Monfort Technical Institute in Fiji Islands is another example of high-quality training by a church agency. Seemingly a wonderful training institution, it takes 134 male drop-out students each year from disadvantaged backgrounds and puts them through a 2- to 3-year training program in fitting and machining; cabinet making and upholstery; building construction, carpentry, and plumbing; electrical and automobile maintenance; and panel beating. It claims a 100% completion rate and 100% employment rate. The Government finances about 40% of the costs of the institution, which raises the balance through sale of produce and products (e.g., furniture). The quality of training is evident in the products and samples produced by students, which is attributable to many factors. Perhaps, chief among those factors is the competence, dedication, and experience of its management. It would be difficult to replicate this in other institutions. The rough cost per trainee per year is F\$7,100 (about \$4,330).

Source: Fiji Islands in-depth report.

Quality as Process

Quality Assurance. In the FSM, the lack of a quality assurance, accreditation, and certification authority is a major shortcoming. The Fiji Islands also has weaknesses in terms of quality assurance. MOE has no working system for quality assurance of its vocational centers in terms of monitoring indicators and systems. As a result, institutions vary in the quality of providing training. TPAF is ISO9001-certified and uses this as a tool to maintain and improve the quality of its systems. FIT lacks quality assurance over the complete franchise program. It only monitors theory, mainly through examinations that it processes. The franchise system lacks systematic monitoring and evaluation.

Quality as Outputs

TVET fails to monitor or evaluate the quality outcomes of training in terms of competencies achieved. It is virtually impossible to evaluate the outputs of vocational training directly, except where trade tests are used systematically. In Kiribati, the Marine Training and the Fisheries Training Centers provide training to an international standard. The same is true for most other maritime training institutions, which must undergo rigorous periodic external audits. In PNG, several institutions exemplify excellence, including the Maritime Training School and church agency institutions Don Bosco and Caritas. The RMI has high quality, but limited, vocational training given by an NGO—WAM—in traditional canoe building and carpentry. The Fiji Islands has little information available about graduate achievements, and the training effectiveness of secondary vocational centers is unclear. Only one indicator could be found of training effectiveness, namely, TPAF test results. Passing rates in these tests vary from year to year, and range from 66–75% for level 3, 50–66% for level 2, and 40–65% for level 1. More use could be made of trade training statistics, e.g., passing rates, to establish benchmarks for quality and effectiveness of training.

Postsecondary Technical Training

Postsecondary technical training tends to be of reasonable quality because fewer institutions and resources can be concentrated.

Standards. The College of Micronesia (COM) uses the Western Association of Schools and Colleges standards, as does the College of the Marshall Islands (CMI). CMI's business standards and curriculum guidelines are based on US college business standards. FIT, the leading technical institution in the Pacific, could develop more international benchmarks for its programs. USP has established standards for its courses throughout the region.

Students. One main issue affecting quality in the region is the poor educational background of entering students. This limits greatly what can be accomplished. The FSM's

incoming students have a poor education foundation. Low-quality general education results in deficiencies in basic academic foundation studies (English, math, and science). Similarly, in the RMI, CMI is handicapped by the low quality of incoming students. This leads to wasted time in remedial instruction and high dropout levels. Incoming students entering the TVET system start from low achievements in English and math. Completion times are exceedingly long as a result. Kiribati and Tuvalu suffer from the same low quality of general education that compromise efforts in quality skills development.

Instructors. At FIT, only a minority of teachers have industrial experience in their fields. Teaching staff have little opportunity for regular upskilling and industrial attachments. FIT has used its own graduates to teach in the institution without intervening work experience. In Kiribati, TTI possesses human resources who can deliver programs effectively. In PNG, high staff turnover impacts negatively on the quality in technical colleges and business colleges. Even expatriate staff on contract in the country for many years may be out of date. In the FSM, the number of trained teaching staff is inadequate for all COM campuses and training centers.

Equipment and Financing. In the FSM, COM facilities are adequate, but limited in training equipment and supplies. In PNG, according to some employers, graduates of technical colleges have been trained on out-of-date equipment. In Solomon Islands, at postsecondary level, little budget is left for equipment and facilities. SICHE workshops have out-of-date equipment. However, TTI in Kiribati is adequately equipped.

Curricula and Methods. PNG follows CBT emphasized in certificate courses of technical colleges. Samoa introduced CBT at NUSIOT, which has greatly reduced the number of students that fail. VIT in Vanuatu has adopted CBT, which has helped reduce repetition and raise throughput. The CBT method ensures that trainees can perform stipulated tasks. Standards seem reasonably high.

Quality Assurance Processes. COM and CMI are both accredited by the Western Association of Schools and Colleges, and are subject to periodic reviews. Other tertiary institutions, except the maritime institutions, are not generally subject to outside quality review. FIT itself has well-developed internal procedures for reviewing proposed new courses, but lacks sufficient international benchmarks and periodic external reviews of its quality. This omission is important in view of its stature as a regional technical training institution.

Outputs. Little comparison can be made of graduates of postsecondary technical institutes. However, in PNG, employers complain that trainees do not acquire proper work attitudes and discipline as part of their training partly because of the wide gap between the culture of the training institutions and the workplace.

High-quality Informal Sector Training

There are successes in informal sector training, but it is difficult to maintain consistent

Box 4.2: Leveraging Traditional Trades for Basic Skills Training, RMI

Founded in 1989, the Waan Aelon in Majel (WAM) program is a nongovernment organization-run nonformal training program that uses traditional Marshallese boat-building techniques as a model for developing vocational skills. The program targets at-risk youth and uses the traditional canoe as the medium for teaching livelihood skills, boat building, woodworking, as well as other elements. WAM has received widespread recognition both locally and in the Pacific for its unique technical and vocational education and training approach combining customs and modern skills. Perhaps just as important, WAM has almost single-handedly revived the traditional practices of canoe building, sailing, and noninstrument navigation in the Republic of the Marshall Islands (RMI).

WAM's trainees are predominantly young male school dropouts who come from low-income families around Majuro's urban areas. The model demonstrates that innovation in training can achieve multiple objectives—economic, social, and cultural. WAM has also succeeded, to a modest degree, in countering rural to urban drift. Many of its graduates return to the outer islands to practice their craft.

Source: RMI in-depth report.

quality. High-quality training programs are characterized by clear target group and training focus; strong institutional backing; well-qualified instructors; well-designed, modular training materials; flexible, field-based delivery systems; built-in follow-up and evaluation; close collaboration with local authorities; and access to donor funding.

Teacher Qualifications. These are a key quality-enhancing element in rural and informal sector training. Over the past 3 years, with NZAID's help, the Vanuatu Rural Development Training Center Association—the coordinating body for the country's 37 RTCs—has developed and implemented a CBT training of trainers' manual and organized a series of in-service programs to upgrade the pedagogical skills of RTC teaching staff. The manual introduces teachers to the CBT approach, illustrates how CBT programs are designed and delivered, and covers aspects of assessment and evaluation. What is lacking, however, is a similar program to upgrade the technical skills of RTC staff.

Similar measures are under way in PNG under the ADB-supported Employment-Oriented Skills Development Project. Here, project capacity-building measures cover both government and private sector training providers of informal sector training programs. By mid-2006, more than 1,100 trainers and training managers had received some form of technical, pedagogical, or management training, including a 4-week training package for formal and nonformal providers on improving their management and entrepreneurship knowledge and skills. There is little doubt that these measures have helped improve training quality in participating provinces and training institutions. This is mainly a result of the higher-quality training inputs: the modular course materials and the training of trainer programs.

In Solomon Islands, however, the results appear somewhat different. Training of

teachers and developing curriculum were the focus of a two-part EU project that began in 1993 and ended in 2004. Under the project, new syllabi were developed for the RTCs and a teacher-training component was created, consisting of an in service training program for staff who were teaching but lacked the requisite pedagogical qualifications, and a preservice component in the form of a new institution, Vanga Teachers College, which had its first intake in 2002.

Despite these input-enhancing measures, the EU's midterm review of its project in 2003 and a recent World Bank study⁸ of TVET in the Solomon Islands found that the quality of RTC training was variable at best, with most being less than satisfactory. These findings supported those of a 2001 tracer study of graduates, which found that graduates were not well integrated into their communities and the skills gained were not regarded as high quality. A separate evaluation of the project's curriculum development activities in 2005 indicated that the project had only a limited impact on the performance of RTCs. This was largely due to focusing on curriculum development and teacher training, and neglecting fundamental issues such as the quality of output, management of the training centers, and the institutional structure of the program.

Smaller Countries. Short courses are generally effective in smaller countries. Lacking a dedicated network of rural or informal sector training institutions, the smaller countries tend to organize ad hoc short courses in existing training centers using part-time or seconded staff. This has been the practice in the Cook Islands for short courses for school-leavers organized through the Hotel and Tourism Training Center. Despite the fact that in 2005, nine instructors with degrees and six with diplomas staffed the programs, the programs were judged to be of only "indifferent quality" by a recent tourism and hospitality training framework report.

Local instructors, accredited by recognized technical training institutions in New Zealand and funded by NZAID, staff short upskilling courses in carpentry, automotive, and electrical fields conducted, mainly for outer islanders, by the Trades Training Center of the Cook Islands. The quality is regarded as good and the courses provide the necessary foundation for participants to move up to certification-level programs. The key element appears to be the direct involvement of the donor country, New Zealand, in funding certified trainers and meeting other course costs.

In the FSM, short-term training courses and community-based skills training in such subjects as small-engine repair and maintenance, solar power energy, and small-appliance repair and maintenance, benefit from the resources available in T3 training centers. Courses organized in the centers, communities, and remote islands range from 2–4 weeks in length. They are designed mainly to improve productivity and promote

8 World Bank. 2007.

self-employment and income generation. Little information is available on the level of staff qualification or the outcomes of these short programs. T3 is the national trades testing authority in the FSM and issues of quality are, therefore, central to all its programs. The T3 program also establishes linkages and cooperative efforts with existing training providers and with ancillary enrichment programs to ensure that high-quality training meets performance standards and quality assurance measures.

Post-Training Support Services. These services are important. In informal sector training, success is measured less by examinations and certification, and more by the extent to which training results in actual employment, income generation, or increased productivity. The quality of programs is also a function of a range of post-training support services that have shown themselves crucial in facilitating the application of training to productive activity. Among the most important of these are providing information and assistance for accessing microcredit; facilitating technical and business advisory services; helping link participants with potential employers; and facilitating access to information on new products, markets, and services.

In the Fiji Islands, the quality of the training programs provided to unemployed school-leavers suffered from a lack of funds for monitoring and following up graduates to determine how they were progressing or what kind of post-training assistance they required. This was felt to be one main reason for the fact that only about 40% of graduates had found wage employment or started self-employment.

MOE's Advanced Vocational Training Program placed only about one in four graduates in employment or income-generating activities in 2000–2002, a figure suggesting problems with both the quality and the relevance of the training. In part, this may be because the program relies on the use of existing—and often underequipped—vocational school facilities and local resource persons hired ad hoc. There appears to be little in the way of monitoring or follow-up support services for participants. Obtaining credit for self-employment start-up is reportedly a particular problem for young school-leavers.

Lack of Feedback and Evaluation. Informal sector training throughout the Pacific lacks the necessary feedback and evaluation measures to provide information on the impact of training. Information from graduates in the form of post-training tracer studies should be collected 3–6 months after the completion of training and the results used to inform decision making on subsequent training provision. This has been a standard component in externally funded projects for the informal sector, such as the ILO-implemented community-based training projects in Bangladesh and Nepal in the 1990s and, to some extent, in the current ADB Employment-Oriented Skills Development Project in PNG.

Partnerships. Informal sector training programs can improve the quality of their output by establishing partnerships with local businesses and industries to provide trainees

with opportunities to gain practical work experience through short attachments. In Nauru, for example, the Nauru Youth Affairs (NYA) Institute provides preemployment training to school-leavers and dropouts on aspects of good workplace behavior, to help prepare them for employment later. In partnership with both government departments and the private sector, trainees are then placed in paid work to gain practical experience. Remuneration is minimal and paid by NYA monthly. For 3 months, the youths would learn on the job. Workplace performance is assessed by supervisors and the assessment is submitted to NYA. At the end of the 6-month training-cum-practice period, youths graduate with a certificate of participation. In some cases, the period of practical workplace experience leads directly to permanent employment upon completion of the program.

NGOs. In all PICs, NGOs are major providers of rural and informal sector training, and in many cases, the quality of the training inputs, processes, and outputs is high. Both the Tutu and Montfort training schools in the Fiji Islands are cases in point. Here, a combination of selective-entry procedures, active support from parents and local authorities, and close supervision of the training process by dedicated staff appear to be the key factors leading to a high-quality training product.

Other NGOs focus on providing quality capacity-building programs for trainers on their own or other NGOs working at the grassroots level. The Foundation of the Peoples of the South Pacific Kiribati has been active in promoting sustainable livelihood training and projects for rural youth in Kiribati and building the capacity of I-Kiribati trainers in coral reef management. The international arm of the Foundation of the Peoples of the South Pacific International enables it to draw on high-quality training expertise from throughout the region for its capacity-building programs.

In other cases, however, NGOs themselves lack the training resources and expertise to design and deliver good programs. In the RMI, this problem was addressed partly in 2000 by the ADB Skills Training Project, which sought to establish a women's training and marketing center together with an NGO-based outreach capacity to provide training for women and youth on the outer islands. The project was only partly successful and a subsequent evaluation found that neither the outreach training nor the programs offered were up to expectations. The main problem was the lack of expertise to design and develop quality training products.

Short-course training in basic trade skills is the most prevalent category of NGO training in PNG. Information on the quality of training and outcomes is difficult to obtain, as many students are boarders who return to their home villages after training. However, vocational center officials in PNG's Western Highlands province estimate that only 15–20% of those who complete short courses in that province find wage or self-employment. The remainder return to their villages where, it is reported, they often come to later CBT activities. This says little about the quality of the training inputs or

process, but suggests that there is hardly any demand for the output of NGO technical training in the province.

Outreach Training in Atoll Economies. Almost all atoll economies of the central Pacific have had difficulties in delivering high-quality and cost-effective outreach training. Few have the institutional or other resources required to invest in dedicated and purpose-built delivery systems such as in Vanuatu, or to develop materials and programs for the small- and sparsely populated outer islands, where employment and income-generating activities are scarce. In Kiribati, for example, the Ministry of Commerce, Industry, and Cooperatives can only conduct between three and five start- or improve-your-business training courses a year because of a combination of lack of local demand and high delivery costs. While the results of evaluations carried out at the end of each course indicate that the quality of training provided is acceptable, the training has not led to much success in terms of actual new business start-ups.

Examples of High-Quality Informal Sector Training. Two initiatives in the informal sector—both outreach activities—appear to have been successful in creating good training programs: the Integrated Agricultural Training Program in New Britain, PNG, and the Mobile Training Program for Coastal Fisherfolk in Santo, Vanuatu (Boxes 4.3 and 4.4).

While different in terms of content and delivery system, the two-boxed examples share common design and development features that appear to be closely associated with a high-quality training product. Both focus on subsistence target groups (farmers and fisherfolk); have as their main objective, adding value to an existing subsistence economic activity; were developed by established institutions with the necessary technical and training expertise; and use flexible and field-based delivery systems (giving maximum convenience for trainees). Each also relies on collaboration with local authorities in organizing its training and each attracts donor support.

The use of training technology to support informal sector skills development is limited in most PICs but prospects are improving as computer facilities begin to penetrate rural areas. In the Fiji Islands, for example, the Advanced Vocational Training Program is planning to use existing e-learning facilities in 21 rural secondary schools to establish e-community training centers and e-training-cum-production centers to strengthen informal sector training programs. Here two main areas of application are for consideration: use of technology to provide or enhance the content of informal sector training programs, e.g., accessing the experiences of similar programs in other countries via the Internet; and use of technology to produce more effective audiovisual training materials. The latter is particularly relevant in situations where target groups lack functional literacy skills, e.g., school dropouts and rural women.

Box 4.3: Integrated Agricultural Training, PNG

The Integrated Agricultural Training Program (IATP) is a training program developed by the University of Vudal in Rabaul, Papua New Guinea (PNG) to introduce subsistence farmers to basic tools and techniques for managing their assets and resources more effectively.

With help from, and close collaboration with, provincial authorities and local nongovernment organizations, based on a series of 12 training modules, IATP provides regular and field-based training that focuses on overcoming or reducing farmer-defined problems and constraints. The emphasis for IATP has been on developing and delivering a truly integrated program—integrated both in the sense of developing a livelihood approach to training and developing training partnerships with other providers.

The modules comprise a mix of technical, business, and livelihood skills geared toward empowering farmers to make sound decisions on how best to use their limited resources. They are typically implemented in 2-day programs, which include subjects such as basic record- and bookkeeping, managing savings and credit, and small enterprise planning and management. By mid-2005, more than 4,000 farmers—twice the expected number—had taken part in the program.

An evaluation of the IATP program in 2004 confirmed that the major impact had been a broadening of perspective in the way subsistence farmers view the world and their crop management. In particular, the livelihood course has significantly impacted on farmers in terms of providing an opportunity for reflection about their lives and their community.

Source: PNG in-depth report.

Box 4.4: Mobile Training for Coastal Fishermen, Vanuatu

The Mobile Training Program for Coastal Fisherfolk (Santo, Vanuatu), is a novel boat-based training program developed by the Vanuatu Maritime College to deliver short courses on improved fishing and fish-processing techniques to coastal communities in Vanuatu. This 2-week program is delivered in a specially outfitted boat. It helps coastal fishing people around the country's numerous islands develop or improve their fishing and seafood-handling skills, learn how to operate small boats safely, operate and maintain outboard motors correctly, and maintain and repair small boats. This enhances their lifestyle and improves small vessel safety.

A team from the college takes the training modules on rural fisheries to remote coastal villages using college vessels and equipment, thus ensuring training in a familiar environment with the least disruption to village life. Each year, the college sends advance information on the course to the six provincial offices in Vanuatu to ascertain interest. Since 2000, between eight and 12 courses have been delivered each year. The average number of participants per course is 15–20. The Secretariat of the Pacific Community subsidizes the program.

Source: Vanuatu in-depth report.

Equity

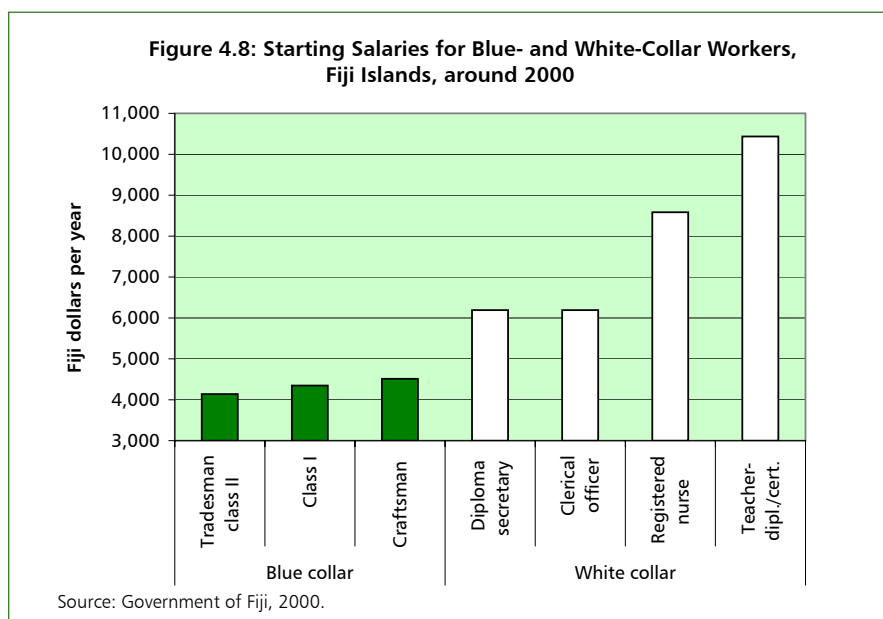
General

Negative attitudes affect TVET. In addition, access to TVET is low in total and imbalanced by geographic area, income group, and, especially, by gender.

Access to skills development is a function of availability, affordability, and personal choice. Personal choice is influenced by the general view of TVET as a “second-class” option in many countries. The low status of TVET comes from many sources, including the low priority it receives in public budgets, lower academic ability of those channeled into it, and perceptions about the financial payoffs to TVET. In Solomon Islands, the public’s perception of TVET is that it is the pathway for the “failures” who do not go through the formal education system. TVET students, particularly those who finish RTCs, are seen as second best and have less status than those in academic streams. In the Fiji Islands, students who enroll in vocational centers are commonly called “dropouts.” In part, lower status is a direct result of the wage structure. The Fiji Islands is a case in point (Figure 4.8).

Fiji’s education system is so accustomed to academic education that strong parental pressure for academic credentials has made the TVET program a second-class option rather than a “second chance” education. This can be explained partly by the difference in salary of blue-collar workers compared to that for white-collar workers. Until wages for blue-collar workers are more attractive, the status of TVET will continue to be below that of an academic education (Government of Fiji 2000).

On a positive note, the FIT franchises in the Fiji Islands have given students who would otherwise terminate their secondary education another chance to gain access to tertiary education. This has perceptibly raised the status of the vocational programs in secondary schools.



Equity can be evaluated by overall access of trainees to training (the “index of opportunity”) and equality of access in terms of location, income, and gender. These are presented in sequence below.

Overall Access

Overall rates of access to TVET are relatively low in relation to the number of school-leavers resulting in a widespread poverty of opportunity (Table 4.1). “Poverty of opportunity” means a lack of opportunities to achieve an acceptable quality of life. The most common interpretation of this is insufficient access to education, health and other basic services, or economic opportunities. Poverty of opportunity applies particularly to TVET. Few opportunities exist to acquire technical/vocational skills by school-leavers or “pushouts,” females or adults, or those who live in remote areas.

The point is not a comparison among countries. Rather, only a small minority of school-leavers have access to skills acquisition through training. No more than one in four school-leavers is able to get a place in vocational training centers in the countries studied, and more likely, it is only about one in 10. Since the output of school-leavers is increasing faster than access to vocational training, an increasing proportion of those who need skills for employment and income are not given the opportunity to access such skills.

The growing number of young, out-of-school youth is becoming a matter of prime concern to governments in the Pacific and this is articulated in the Pacific Plan endorsed by Pacific Island Forum Leaders in 2005. For example, a key problem in Kiribati is addressing livelihood training for the 2,000 annual school-leavers, especially those on the outer islands who are unable to secure formal employment at the end of junior secondary school.

Table 4.1: Index of Opportunity for Vocational Training, Selected Countries

Country	Estimated no. of school leavers	Estimated no. of entrants to vocational training	Share accommodated (%)
Fiji Islands	14,000	1,300	10
RMI	1,300	100	8
PNG	50,000	9,000	18
Solomon Islands	9,000	1,000	11
Vanuatu	4,500	1,000	22

Note: Fiji Islands excludes TPAF.

PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, TPAF = Training and Productivity Authority of Fiji, % = percent.

Source: In-depth reports.

Location

Access is low in rural areas and the outer islands. The network of vocational training centers is geographically diverse in several countries, including the Fiji Islands, PNG, Solomon Islands, and Vanuatu. In the FSM, those on far islands do not have easy access because the programs are centralized in the state capitals, increasing their costs of attendance. In Samoa, location is the main problem with access. Most TVET providers are located around the urban areas with only a few in rural areas. In Solomon Islands, those who live in or around Honiara have the easiest access to SICHE and Don Bosco. In the RMI, almost all the TVET programs are concentrated on Majuro. Ebeye Island and the rural atolls, with 30,000 people, see just a few training opportunities a year. The main reasons are lack of funds to deploy programs beyond the capital, poor planning, and logistical difficulties, including a faltering interisland transportation system.

In Vanuatu, RTCs are unevenly distributed geographically. Some provinces have multiple centers; others with larger populations have few. Access to RTC training varies greatly from province to province, ranging from one center per 2,400 people in Penama to one center for every 18,000 people in Sanma. This is the consequence of private ownership and initiatives: the RTCs are established where NGOs and communities have an interest in setting them up. However, government plays no role in providing incentives to balance provision geographically. Hence, locational inequities persist.⁹

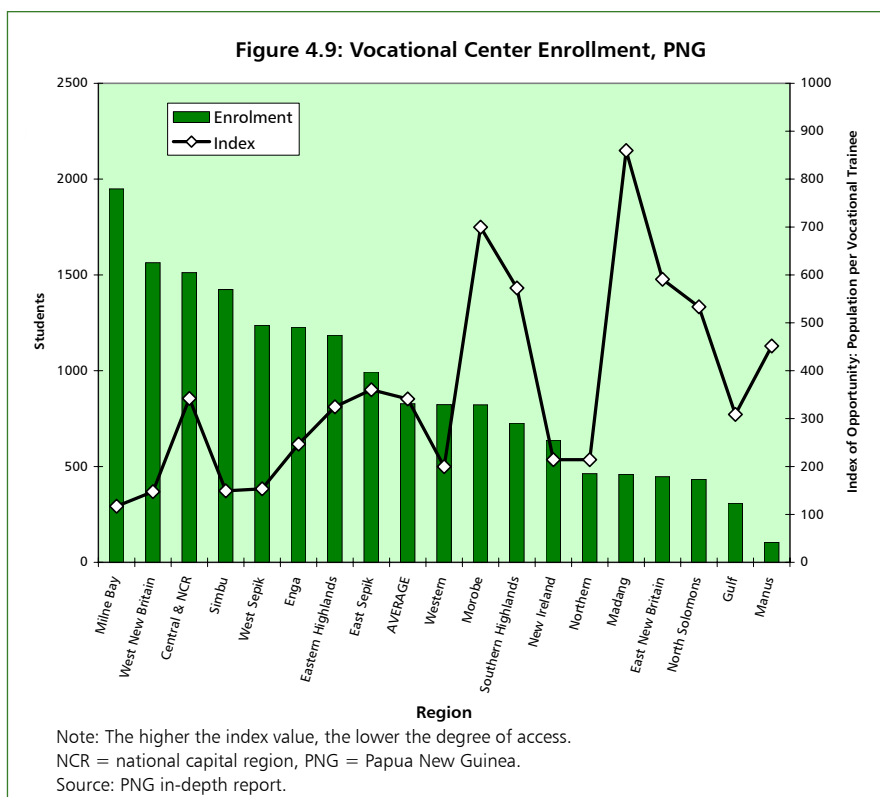
In PNG, vocational center enrollment varies considerably in relation to population by district, as seen in Figure 4.9. For example, there are 860 people for each vocational trainee in Madang, compared with just 117 and 148 people per trainee in Milne Bay and West New Britain, respectively. This means people in Milne Bay have seven times greater access to vocational centers than those living in Madang.

Two major consequences of geographic inequity are limited income-generation opportunities for rural areas and outer islanders (which increases their hardship) and continued high urban migration.

One bright spot in geographic equity is the Tuvalu Maritime Training Institute (TMTI). It deliberately allocates places by island. As a result, the outer islands in Tuvalu produce 83% of the graduates, substantially more than their 53% share of the total population. In Tonga, the Short-Term Training Center enrolled 19% of its 310 participants in 2005/06 from outer island participants, almost reaching its target of 20%.

Access also pertains to quality as well as physical places. In the Fiji Islands, the quality of TVET provision reportedly varies inversely with the distance from Suva. Access to quality vocational training remains a problem in most rural areas, where training facilities are poorly equipped and underfinanced, and the expertise of teaching staff is

⁹ To a certain extent, geographic inequities in center location are minimized by the presence of extensive boarding facilities at the rural training centers (RTCs). People from underrepresented regions can be accommodated at RTCs in other regions. This, however, adds to their travel costs.



inadequate. Access to quality is also problematic in Vanuatu—the variable quality provided by different institutions results in some students getting relatively less value for money, depending on which RTC they attend. The notes that accompany the submission of annual statistics indicate considerable variance in RTC operations and in the quality of the services.

Income

Lower-income groups tend to have less access. The place of residence tends to be highly correlated with level of income; and level of income, in turn, is highly correlated to affordability, another determinant of access to vocational training. Affordability includes not only the direct costs of attendance, but also indirect costs such as transportation and income forgone. The review collected almost no information about access to TVET by income group. However, some inferences can be made.

An apparent contradiction exists. On the one hand, vocational institutions cater to students from low-income groups. Within Majuro in the RMI, anecdotal information suggests that the majority of beneficiaries of training programs and activities are, indeed,

those from lower-income groups. Certainly, that is the case of WAM, which deliberately targets at-risk youth. In Solomon Islands, vocational courses tend to draw students of less academic ability and from the more-disadvantaged income groups.

On the other hand, many low-income people cannot afford the direct and indirect costs. In PNG, training in vocational centers is limited to those who can afford to pay tuition fees. Potential students do not enroll because of inability to pay, and many students drop out and do not receive certificates because their parents cannot continue paying. In Tonga, statistics are unavailable, but observations have indicated a high-dropout rate among students in the islands and among those from poorer segments of society. This limits their opportunities for developing skills for income generation.

NGOs and church agencies provide expanded access to TVET at little or no cost to government. In Vanuatu, RTCs and the 2,000 students enrolled are financed entirely from private funds.

Failure to recover costs at higher levels of education and training also tends to discriminate against low-income groups. Costs recovered could be used to provide greater access to skills.

Trade testing systems in the Fiji Islands, Kiribati, and PNG facilitate upward mobility by conferring qualifications on those who have acquired skills outside the formal TVET system (i.e., recognition of prior learning).

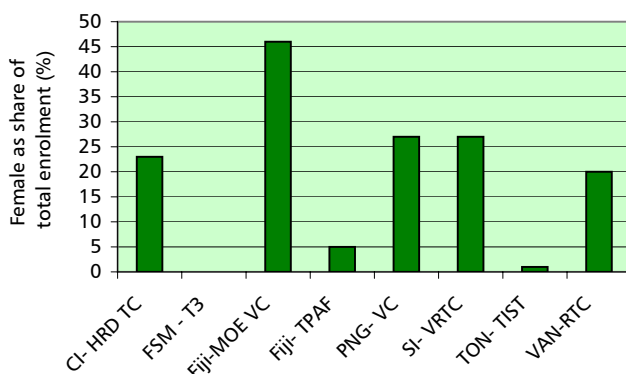
Gender

There appears to be widespread gender bias when it comes to the types of informal sector training provided to men and women in the Pacific. Men tend to monopolize technical and trades training while women are found almost exclusively in home economics, domestic science, and commerce-related programs. This constrains women's ability to start their own businesses or compete for jobs in the local labor market. There is an urgent need to broaden the training opportunities available to women and promote their active participation in "nontraditional" trades and management-related subjects.

Largely, the TVET systems favor males over females. In contrast with general education, where gender parity is close to reality in most PICs, girls and women tend to be under enrolled in TVET programs, as seen in Figures 4.10 and 4.11.

In vocational training institutes, the proportion of women enrolled ranges from 0–45%—T3 in the FSM and only a small share in TPAF—in MOE vocational centers in the Fiji Islands. The proportions tend to be higher in postsecondary technical institutes. Except for the technical colleges in PNG, women account for 30–60% of enrollments.

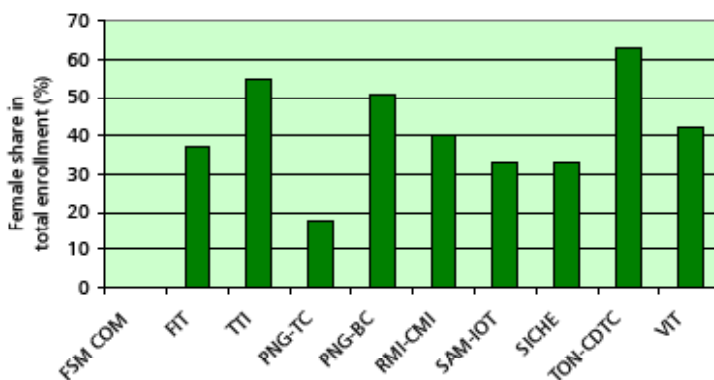
As with informal sector training, females tend to be channeled into courses supporting traditional female occupations, e.g., home economics, secretarial work, and hospitality. For example, the proportion of girls in vocational training courses in the Fiji

Figure 4.10: Female Enrollment, Vocational Institutions

Notes: Data are estimated for TPAF in traditional areas such as carpentry, metalwork, and automotive. Females reportedly make up about half the enrollments in hospitality, information technology, and accounting, and about 70% in garment trades.

CI-HRD TC = Cook Islands Human Resource Department Training College, FSM = Federated States of Micronesia, MOE = Ministry of Education, PNG = Papua New Guinea, RTC = rural training center, SI = Solomon Islands, T3 = trades, training, and testing, TIST = Tonga Institute of Science and Technology, TON = Tonga, TPAF = Training and Productivity Authority of Fiji, VAN = Vanuatu, VC = vocational center, VRTC = vocational rural training center, % = percent.

Source: In-depth and background reports.

Figure 4.11: Female Enrollment, Postsecondary TVET Institutions

BC = business college, CDTC = Community Development and Training, CMI = College of the Marshall Islands, COM = College of Micronesia, FIT = Fiji Institute of Technology, FSM = Federated States of Micronesia, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, RTC = rural training center, SAM IOT = Samoa Institute of Technology, SICHE = Solomon Islands College of Higher Education, T3 = trades, training, and testing, TC = training center, TON = Tonga, TVET = technical and vocational training and education, TTI = Tarawa Technical Institute, % = percent.

Source: In-depth and background reports.

Islands is 20–40% of total enrollments in the institution level. However, almost all women in these institutions are in traditional home-oriented training courses. The exception is in tourist areas where hospitality-related courses provided in local vocational centers are in demand from local hotels and resorts and result in a high proportion of female students in some schools. In rural areas, however, low levels of female enrollment prevail and one main reason for this is the lack of hostel facilities for girls. About 36% of FIT students are female, concentrated in commerce (63% of the total), general studies (58%), and hotel and tourism (72%). TPAF caters mainly to traditional male trades and does not even keep enrollment statistics by gender. In PNG, only 25–30% of enrollments were female and this proportion has not increased. Most are registered in traditional home economics courses. The same applies to colleges, where women tend to be concentrated in business studies.

A similar pattern occurs in Solomon Islands. Only about one quarter of all trainees are female in RTCs. Females are disadvantaged in the availability of accommodation. Further, in almost all RTCs, training opportunities are restricted to life skills, agriculture, and business studies. With few exceptions, there is no active consideration to allowing females to register on courses such as woodwork. Center managers regard this as culturally inappropriate.

However, in PNG, though the Government owns and operates 73 vocational centers against 56 church agency centers, the latter enroll over thrice as many female students.

Box 4.5 shows the progress that the Community Education Training Center has achieved within SPC.

There are multiple causes of female underenrollment. These enrollment patterns reflect both cultural values and employer preferences. Cultural stereotypes of women inhibit young women from participating in the programs. In some places, parents deem travel to vocational institutions by daughters as unsafe. In Nauru, employers do not normally practice equal employment opportunities. Parents may be unwilling to invest in the training of their female children. Factors internal to the TVET system also discriminate against girls, including lack of female boarding and other facilities and low proportion of female teachers. In Vanuatu, to some extent, underrepresentation of girls in RTCs may also reflect the fact that in most provinces girls tend to outperform boys at both Grade 6 and senior secondary school levels, i.e., fewer girls than boys are pushed out of the system at these levels.

The education system is still reinforcing vocational training for girls toward domestic roles or towards poorly rewarded careers. ... Many parents do not recognize the importance of girls' education especially in rural areas. However, this opinion varies from region to region and reflects different

Box 4.5: Community Education Training Center

The Community Education Training Center (CETC) of the Secretariat of the Pacific Community (SPC) provides access for Pacific women in technical–vocational and livelihood areas as well as in governance and business. CETC, established in 1963, is the only regional provider that specifically targets Pacific island women. It provides residential, short-term courses with a robust, broad-based integrated 7-month community development program focusing on technical–vocational and livelihood skills. The former are specialist courses in leadership and local governance as well as entrepreneurship training for women in middle management and supervisory positions from state and nonstate sectors in the region. The latter targets women engaged in community or development work. It involves a mix of core, modular courses self-accredited by SPC and technical and vocational short courses, most of which are accredited by outside providers like the Fiji Institute of Technology, Training and Productivity Authority of Fiji, or University of the South Pacific, which run the course for CETC. Each course feeds into the other. The community development certificate received at the end of the 7 months is not formally accredited by CETC. A tracer study and a database on its graduates record a 99% employment rate (self or paid).

CETC's residential arrangements comprise specialist-training rooms (e.g., radio training station, food, tailoring rooms, and laboratory); gardening plots; fishpond; piggery; and chicken hatch, which make the training experience highly practical.

The center's core courses underwent a gender mainstreaming exercise in 2005, perhaps the only technical–vocational program to do this. However, what appear to be special in this broad-based program for women are the microfinance elements interwoven into the courses. In this way, women are prepared to use the knowledge and skills learned both for livelihood and for cash income generation.

The center's impact is reflected in its annual waiting list, continuing support from development partners and member governments, and success stories from graduates. To date, close to 1,500 Pacific women have been trained at CETC.

Source: CETC management.

cultural behavior. Within the school settings, fewer funds are allocated to girls' programs. Often there are no boarding facilities or arrangements for female students because of security problems. In some isolated rural areas in Western and Gulf Provinces, the enrolment of girls and the presence of female teachers is almost zero. In comparison, the New Guinea Islands Region is completely different, with many girls taking up the so-called 'male trades' and female teachers holding senior positions (Schaffer 2002).

Because of inequitable access for females, many lack the basic skills to become employable and this directly limits their ability to improve their welfare and that of their families. For unmarried females with children and no husband, this inequity to training makes it difficult for them to lift themselves out of poverty.

Yet exceptions exist. In the RMI, various ministries and Women United Together Marshall Islands undertook more female-targeted short-term training activities in recent years, including income-generation training like producing noni tea and virgin coconut

oil, floral arrangements, and handicraft marketing. Gender equity has been achieved in Tuvalu in terms of scholarships, helped by the Training and Scholarships Policy of 2003. The RMI has also achieved gender balance in its scholarship awards.

Vanuatu has also sought equity in awarding scholarships at VIT with some success. The proportion of females enrolled at VIT increased from 37% (2004) to 42% (2006). Equity scholarships have enabled girls to make inroads into traditionally male-dominated occupations. Every department in VIT includes females, including 31 trainees in joinery and electricity, compared with 79 males. In PNG, church-agency vocational centers achieve much greater gender equity than public institutions. In Tonga, the Short-Term Training Center has achieved its 50% objective with 67% female participants among the 310 participants.

However, the overall conclusion remains clear: the most disadvantaged in terms of access to TVET are women and girls.

Organizational and Management Effectiveness

Pacific TVET systems face formidable challenges in the organization, management, and delivery of relevant training services.

Difficulties in Managing TVET

TVET is arguably the most difficult subsector to manage in the whole spectrum of education and training. It is much more difficult to plan and deliver than any other level of education and training. Its demands tend to be unarticulated and changing. It faces a complex repertoire of competing interests and heterogeneous target groups, many of whom do not know what they want to do after training. Managing TVET is made more difficult by the different forms of provision—formal plus informal training provision, modular, short term, and long term. It has lower status than general and university education. In addition, it competes with these larger and more popular subsectors for financing. Moreover, managing small-scale, dispersed infrastructure is difficult.

The organization of university education, for example, does not have the complex repertoire of competing interests to consider in its planning and delivery of educational services. University students are relatively homogeneous in terms of educational background. Courses are formalized and clearly articulated. The objectives of the university are aimed at well-defined targets. The university has an unassailable status as far as its position in education is concerned. The university does not have to concern itself with the local community. The staff is highly trained and motivated and students have a clear understanding of why they are at university and what they hope to do after graduation.

In contrast, vocational centers are invariably faced with a heterogeneous group of students who have enrolled for a variety of reasons, some of which are not conducive

to learning. The capacity of vocational instructors varies quite a lot and course articulation may be poor. Recent developments require a strong relationship between centers and local communities, which may or may not be forthcoming. Vocational centers find themselves competing for scarce resources with technical education and technical high schools (Guy and Mueller 2002).

Additionally, public sector training institutions tend to inertia. Budgets continue, more or less the same year after year, regardless of performance. Long-term teacher contracts must be honored and expensive equipment and facilities must be used. Installed plant makes it difficult sometimes to change direction and provide new training needed in the market. The management of training institutions usually sees little need to conduct tracer studies because it views its main task as production of skills, not how well they are used. The picture mentioned paints a caricature perhaps, but it illustrates the lack of incentives to change inherent in many training systems.

Strengths in Managing TVET

Much strength exists in organizing and managing TVET systems in the region; several promising developments have occurred. The management of postsecondary technical institutes, in particular, is relatively strong in such places as the Fiji Islands (FIT), Samoa (NUSIOT), and Vanuatu (VIT). TPAF stands out as a unique training organization with strong management, close relationships to employers, and stable, independent financing.

Several recent organizational changes are promising. National training councils in the RMI, PNG, and Vanuatu—the last with support from provincial training boards—provide a venue for the main stakeholders to articulate training priorities and to steer the TVET system in the direction of user demands and market changes. If VNTC—the central body for coordination and quality assurance—did not exist, Vanuatu would have to create it. This goes for NTC in the RMI as well.

In addition, national qualification agencies in Samoa and Tonga hold the promise of better quality assurance in accrediting institutions and establishing quality standards. Separate organizations have been established to focus attention on postsecondary and post-schooling TVET, the Ministry of Training, Employment, Youth, and Sports (MOTTEYS) in Tonga, and the Department of National Human Resources Development in the Cook Islands. Several TVET-specific plans have been prepared (PNG, Solomon Islands, and Vanuatu). Coordination has been established among nonformal providers through organizations such as the Vanuatu Association of Nongovernment Organisations (VANGO) and the Vanuatu Rural Development and Training Centers Association. Moreover, TVET institutions are networking through the regional PATVET organization and through several national TVET associations (Fiji Islands Technical Vocational Education and Training Association and Samoa Association of TVET Institutions).

Organizational Issues

Unclear Mandates. In PNG, the division of labor is unclear between the Ministry of Labor and Industrial Relations and the National Department of Education (NDOE) as evidenced by different and sometimes contradictory plans for the same policy areas. Roles are also unclear between NDOE and the Department for Community Development on responsibilities for informal sector training. Department of Community Development (DCFD) has responsibility for training for the informal sector, but lacks the training expertise that resides in NDOE.

In the RMI, unclear mandates lead to duplications in several areas. The roles and responsibilities of MOE, NTC, CMI, and other entities often overlap and cause confusion. Legislation for these three institutions states that each entity has some responsibility for providing TVET. NTC and MOE are both responsible for monitoring and regulating training providers. Both the NTC and the Ministry of Resources are responsible for regulating apprentices. In Vanuatu, the division of responsibility between MOE and the Ministry of Youth Development and Training is unclear and artificial. With only 12 staff to cover the whole country, the ministry has little capacity to oversee and stimulate nonformal training. In the Fiji Islands, observers have remarked on the inherent conflict of interest in TPAF being simultaneously the financier, provider, and assessor of training.

Coordination Issues. The FSM lacks coordination among the three main TVET systems—T3, College of Micronesia, and the Workforce Investment Act. Moreover, the structure of the country is reflected in a TVET system that duplicates functions, fragments training, and leads to unsustainable providers. Ten TVET public service training providers and more than 30 ancillary enrichment programs is just too much for a small country to manage effectively or support financially. As an example, having five COM campuses and five T3 programs is taxing on financial and administrative resources.

In the Fiji Islands, FIT and TPAF have their individual legislative acts that make them semi-autonomous under different ministries—MOE and Ministry of Youth and Sports, Employment Opportunities and Productivity, respectively. MOE administers and monitors TVET directly but only in secondary schools and vocational centers. Private education providers have no proper monitoring system by MOE to keep track of the adequacy of their offerings after initial approval and registration. FIT and MOE coordinate through their vertical linkages (secondary graduates moving up to tertiary studies) and the franchise program. TPAF has MOE representation on its board, councils, and industry advisory committees, but TPAF seems to operate largely on its own without any relationship to school-based training. TPAF has stated that there is little, if any, coordination with MOE facilities. This can lead to duplication of facilities (e.g., in hotel and tourism training around Nadi). A case could be made for having one overall national training authority for policy, coordination, quality assurance, and monitoring.

In PNG, the three main parts of the TVET system do not work harmoniously. NTC, NATTB, and TVET Division of NDOE can be seen as dysfunctional. Each has its own board and management structures, develops its own policies, forges its own linkages with enterprises, is responsible for some registration and certification of training providers, and each uses different criteria in the process.

In Solomon Islands, there is little connection or coordination among the different TVET providers, other organizations, and the Government. The Ministry of Commerce, Industries, and Employment has its own training system, as does MOE. SICHE, RTCs, and nonstate actors operate without many linkages. No coordinating body exists to oversee training policy, set standards, or oversee monitoring and inspection. Similarly, Tonga at present lacks a national authority for the overall governance of TVET. This has led to lack of clear linkages among stakeholders and providers, leading to duplication of courses and lack of common objectives and standards. The establishment of the Ministry of Training, Employment, Youth, and Sports [MOTEYS] and the Tonga National Qualifications and Accreditation Board are the Government's intervention to address this issue. Tuvalu, too, lacks overall coordination and policy direction for TVET. The Manpower and Training Committee established in 2003 was not sustained. In Vanuatu, despite a coordinating body for rural training, nonformal training programs appear to be characterized by an ad hoc approach to activities.

Fragmentation of Training. In the Fiji Islands, for example, both the Ministry of Youth and MOE deliver similar short-cycle training programs to school-leavers but each develops its own separate portfolio of programs and materials. Improved coordination could facilitate the pooling of resources and a more cost-effective means of producing common programs and training materials. In Vanuatu, poor coordination between various NGOs operating RTCs has resulted in a geographic imbalance in facilities and unequal access to training in different parts of the country. In the Cook Islands, the lack of coordination between compulsory and postsecondary education and training was a major finding of the 2002 training needs analysis report (Catherwood and Topa-Apera 2002).

Excessive Centralization in PNG. The technical and business colleges are administered through NDOE, and principals chafe at the degree of administrative centralization. According to one, NDOE "still has the string around our neck." Approval must be sought from the TVET Division of NDOE for virtually everything, e.g., replacement of computers, even if the institution has the funds available from student fees. This hermetic control stifles initiative and innovation. It prevents institutions from using resources flexibly according to need and adapting programs to local requirements. Devolution of authority would seem appropriate for postsecondary technical institutes.

Resource Constraints. In PNG, NTC lacks resources and expertise to carry out registration and accreditation of private training providers. VNTC lacks budget line

revenue and sufficient staff to handle its work—resulting, among other things, to a backlog of applications for accreditation. TPAF is an exception in this pattern. It has a stable, independent source of financing through a payroll levy. This, plus income from tuition for its popular training programs, means it is financed entirely outside the government budget.

Building institutional capacity to design, deliver, and follow up informal sector training activities is a common need among both government and NGO training providers. Here there appears to be considerable scope for cooperation and complementarity, with government providers focusing on the development of policy guidelines and appropriate methodologies and materials, and NGOs using their grassroots organization to provide effective delivery systems and follow-up services.

TVET Planning

Group 1 Countries. TVET plans are necessary for strategic direction, but they have to be costed, budgeted, and implemented. Although TVET plans have been developed in group 1 countries, these are more aspirational than operational. Vanuatu has well-developed plans for the TVET sector and its major institution, VIT. These plans are well conceived and they provide clear direction for developing the system. However, the plans have not been supported by detailed costing and priority financing by the Government.

A TVET plan was developed in Solomon Islands in 2005. The plan is thorough and comprehensive, but it lists nearly 100 recommendations—too many for concerted action—and its financial implications were not costed or budgeted. PNG has a plethora of TVET plans. Apart from sections in national plans in 1995 and 2005, these include the TVET Corporate Plan (1999–2003), the TVET Policy, Rationale, and Action Plan—Lifelong Learning and Training for PNG (2005) all by the NDOE, and the National Human Resource Development Policy and Strategy (2005) by the Department of Labor and Industrial Relations. Little follow-through or implementation has been seen.

Groups 2 and 3 Countries. These lack national plans and policies on TVET. In the FSM, there are no stated vision and mission for TVET, which will be necessary if TVET is to make an impact on human resource development and economic growth. In the Fiji Islands, TVET figures only marginally in national development plans. At present, no national policy or plan exists for TVET covering all three main organizations and providers, although there is interest in developing such national policies. Kiribati has no TVET plan addressing the implications of national strategic plans. In RMI, the TVET system and NTC have never established a clear set of objectives, policy, or framework for TVET, although NTC is finalizing one. Tuvalu also lacks a policy and plan for developing TVET.

Variability of TVET Management

TVET management varies because of lack of standards, accountability, and opportunities for in-service training. It is difficult, if not impossible, to separate management of TVET from that for the sector in general or public administration as a whole. Too often, managers are not held accountable for performance. Standards of performance and performance indicators are lacking. Budgets are not linked to performance, but they tend to be based on historical levels regardless of achievements. In many cases, management authority has not been devolved, thereby restricting incentives and management performance. In PNG in particular, the business and technical colleges would perform better with greater authority to act on their own, particularly if boards with a majority of employers could govern their actions. Managers observe that little opportunity exists for their in-service training and development.

Yet there are high-quality exceptions, including management of the SPC maritime training system, where standards of performance are clear and periodic quality controls are practiced: Vanuatu, with strategic direction from top education management; RMI and its NTC; and TPAF and FIT in the Fiji Islands.

Data and Research Issues

Lack of Data on TVET. This is an almost universal handicap to progress, with almost all countries reporting this issue. In the FSM, TVET lacks a database, and access to information was the main constraint to the study. In the Fiji Islands, data on the scale and operations of the TVET system are missing. TVET information is lacking in Kiribati and Nauru, as records about training are either not kept or they are recorded incorrectly. Virtually no data are available on the outcomes of training. PNG lacks a tabulation and analysis of information by NTC on private training providers. In Samoa, repetition and dropout rates are not properly recorded in most institutions. In Tuvalu, it was difficult to obtain information about prevocational courses though only one institution exists. The most difficult data to obtain are repetition and dropout rates, completion rates, costs per trainee and, of course, employment of graduates.

Lack of Research. No country has yet developed monitoring and output indicators for TVET. Two countries have the potential to do research on skills development,¹⁰ but do not because of low priority assigned to it. PNG has no monitoring and evaluation officer in MOE, or on providing private training. In the Fiji Islands, the lack of statistics contributes to, but does not fully explain, the lack of research on skills development. Such research on trends and issues is essential for monitoring progress and developing policies.

10 The University of the South Pacific reports that some graduate research has been or is being done on TVET in the Fiji Islands and Samoa.

Finance and Internal Efficiency

TVET systems need to diversify their sources of financing and use them more efficiently. This is because public or donor financing for TVET is limited and, in some cases, declining. Consequently, countries will inevitably have to find ways to reduce dependence on government financing by mobilizing nongovernment financing for TVET. Limited public resources also mean greater attention should be given to increased internal efficiency, as well as to financial transfer mechanisms.

Limited Public or Donor Financing

As seen in Chapter 2, public financing of TVET varies by size of country. The larger countries tend to spend proportionately more on TVET than smaller countries. Still, most countries spend relatively little on TVET except PNG, where TVET consumes 13% of the MOE budget; Vanuatu spends about 6%, and the Fiji Islands 4%.

Most TVET systems depend exclusively or excessively on public financing or donor support. In the FSM, the Compact finances more than 90% of the total annual operating budget of TVET programs. In the Fiji Islands, the upper-secondary vocational centers depend almost entirely on MOE allocations, but these do not cover basic equipment needs. In Tuvalu, the Government finances 100% of the costs of the Maritime Institute, supplemented by external financing. SICHE gets 85% of its revenue from the Government and donor sources. Staff and operations absorb this with little left for training equipment or facilities. In Samoa, the Institute of Technology receives 84% of its financing from the Government.

However, budget increases have not kept pace with enrollment increases. Between 2003 and 2004, the budget for COM declined from \$6.7–4.1 million before bouncing back to \$5.6 million in 2005. This results in a kind of “forced starvation” in per capita and even in absolute terms. These declines apply in particular to postsecondary technical institutes. In PNG, the Government declared that TVET has the second highest priority within the education sector, but financial allocations have not matched this ranking. Funding for technical and business colleges has dropped in real terms. Little funding goes beyond the payment of salaries.

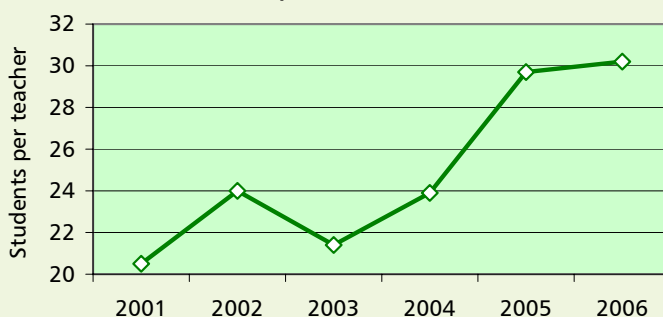
In Samoa, budget increases for IOT have been below enrollment increases. In Tuvalu, financial shortfalls in government revenue and reliance on government financing of TMTI have placed the continued financing of TMTI in doubt. In Vanuatu, enrollment at VIT reportedly doubled while the budget was reduced. At present, VIT gets nearly all its revenue from the Government (58%) and from student charges (32%).

Box 4.6: Coping with Reduced Public Financing, FIT

The case of reduced public financing for the Fiji Institute of Technology (FIT) is dramatic. Its subsidy from the Government remained virtually the same over 8 years, while the number of equivalent full-time students increased by 61% from 5,000–8,100 over 2001–2006. This increased enrollment was achieved by keeping staff numbers constant, increasing sharply the average number of students per teacher, increasing tuition fees, and admitting “private” (i.e., non-scholarship) students.

	2001	2002	2003	2004	2005	2006
Staff	246	260	257	268	267	268
Equivalent full-time students	5,032	6,241	5,500	6,393	7,922	8,100
Students per teacher	20.5	24.0	21.4	23.9	29.7	30.2

**Fiji Institute of Technology-Students per Teacher
(equivalent full-time)**



Source: Fiji Institute of Technology.

Because of these changes, in 2006, FIT raised 51% of its revenue from students, 4% from other income, and just 45% from the government.

Source: FIT Management, 2006.

Tight constraints on public financing mean that TVET systems cannot count on increased public financing. This applies particularly to the former US territories along the northern rim. US support to both RMI and the FSM is scheduled to decrease over the next several years.

Quality tends to be sacrificed when budgets are constrained, since salaries squeeze out financing for materials, equipment, and maintenance. For example, in FIT, CMI in RMI, and the MOE centers in Fiji Islands, expenditure on consumables is 3% or less of total recurrent spending (table 3.8). Capital outlays are often the first to be cut. In the FSM, the T3 program received only 1.7% of its capital budget request. In PNG, capital financing for TVET virtually ceased between 2000 and 2006. As a share of the development budget for education and training, vocational and technical programs received an average of just 1.9% a year over the period. In most cases, development partners are the only source for capital development in TVET.

Mobilizing Nongovernment Financing

Countries inevitably will have to find ways to reduce dependence on government financing by mobilizing nongovernment financing for TVET. Strong mobilization of resources outside the public budget characterizes many TVET systems in the Pacific. These include VIT and RTCs in Vanuatu, vocational centers and colleges in PNG, and especially FIT and TPAF in the Fiji Islands. As stated in the FSM background country report, financial sustainability of the FSM TVET programs is a major issue. Replacing Compact financing for TVET is the greatest challenge. Other countries face a similar challenge. Four ways can be used to mobilize nongovernment financing and reduce dependence on public funds.

First, shift some costs to parents and students. The rationale is that students benefit from TVET through higher income and earnings. It is only appropriate, therefore, that they share in the costs of their training. This is termed “beneficiary financing.” Cost recovery is particularly appropriate at higher levels of TVET, as in postsecondary technical institutes. One can even make a case for this on equity grounds. To the extent that student beneficiaries help pay for their training, the financial burden on government is reduced, allowing it to subsidize more and better training for lower-income groups. VIT and FIT, in particular, have been successful in increasing the proportion of revenue raised from student fees. TPAF also raises about half its revenue from tuition payments by trainees in short courses. In some cases, short courses have become a source of supplementary income for cash-strapped vocational centers in PNG.

Parental willingness to pay for TVET is polarized in the region. In the Fiji Islands and PNG, parents and young adults are willing to finance training courses. The northern rim of Pacific countries in this review has no tradition of paying for TVET in the RMI or the FSM. Of course, there are limits. Many trainees in vocational centers in PNG cannot afford to pay tuition charges and either drop out or fail to collect certification on completion. In Vanuatu, wastage rates in the RTCs, in the form of high dropouts in 2nd- and 3rd-year students, is reportedly a result of fee fatigue.

Second, generate income through sale of products. Private institutions, such as Montfort, rely on the sale of products to generate income. Public institutions can also do this, but it is important for the institutions to be able to keep and apply the proceeds to raise quality. Of course, there is a line beyond which using students to generate income crosses from raising revenue into exploitation of trainees, distracting from the training goals. As a rule of thumb, institutions can expect to generate no more than about one fifth of revenue from the sale of products. The highest proportion of revenue generated from the sale of products and services by PIC institutions visited as part of this review was 15% (Port Moresby Business College, PNG). The highest proportion of revenue from products alone was 9% (St. Joseph's Catholic Technical School, Lae PNG).

Box 4.7: Training Levy in the Fiji Islands

The Training and Productivity Authority of Fiji (TPAF) levies a 1% fee on the gross salaries of all employees in registered firms regardless of enterprise size. The public service is included, but certain workers are excluded, e.g., teachers, nurses, and military personnel. The purpose of the levy is to stimulate training within enterprises. TPAF collects the levy itself by requiring employers to submit documentation and payment semiannually, and by contacting delinquent employers through four levy-enforcement officers.

At present, about 5,200 employers pay the levy and an estimated 600 do not. The proceeds amounted to F\$8.8 million in 2003 and F\$9.5 million in 2004. In theory, employers can recoup up to 90% of the amount they pay into the levy each year. However, this is largely theoretical. In 2005, 5,200 enterprises contributed to the levy, but only 270 enterprises were reimbursed for training through 1,800–2,000 individual claims. These 270 organizations accounted for two thirds of all levies paid. The training levy makes a sizable net contribution to TPAF's operating funds. In 2003, TPAF paid out only about 30% of the levy revenue it received, and 38% in 2004. The balance, plus income from course fees, means TPAF does not depend on public funds to finance its training operations. This makes it unique among Pacific countries.

Source: Fiji Islands in-depth report.

Third, shift the training costs to enterprises. Training levies—usually 1% on payroll of enterprises above a certain size—can be an important source of income. Training levies seem only appropriate in countries with a sufficiently wide enterprise base to justify the administrative costs of operating the levy (collections and allocations). TPAF benefits from a training levy in the Fiji Islands for about half its operating revenue (Box 4.7).

In contrast, receipts collected from the training levy in PNG go to the treasury and they are not earmarked for training.

Variants of the TPAF payroll levy are levies on foreign workers and ship sizes. The RMI collects a nonresident workers' tax from employers based on hours worked by expatriates (\$0.25 per hour), and allocates the proceeds to NTC. NTC, in turn, distributes the funds for development and delivery of training programs. In PNG, the Maritime College receives a modest income each year from a tax on ships according to length.

However, training levies can be implemented in a way that does not benefit training. PNG provides proof. There, a training levy is collected from companies with a payroll in excess of 200,000 kina (K) a year. The levy is 2% of the payroll and is offset by any training conducted for company staff. The levy is collected by the Internal Revenue Commission but is forwarded to consolidated revenue. It is not used directly for training purposes. This levy discourages enterprise support for public TVET. The reasoning goes that the enterprises are already supporting TVET through the levy. Why should they do more?

Apprenticeship programs in the Fiji Islands, Kiribati, and PNG also shift most costs of skills development to enterprises. In PNG, some employers have demonstrated willingness to sponsor trainees in colleges and through apprenticeships. Some enterprises have also set up their own training institutions, such as Ok Tedi and Hastings Deering in PNG.

Fourth, encourage private training providers to expand and improve. In many countries, encouragement of private training providers is a way to increase training provision without requiring additional government funding. To the extent that private training providers take up excess demand for training, and are financed through nongovernment means, they can provide an important way to complement government spending on training. As seen previously, the private training market is growing in the Fiji Islands and PNG. In addition, NGOs and church agencies provide substantial training in rural areas, such as RTCs in Vanuatu, which are entirely nongovernment financed.

Increasing Internal Efficiency

Inefficiencies in TVET. The FSM is a good example of inefficiencies. Resources are fragmented and spread too thinly over so many programs that funds are insufficient to cover training delivery, facility upgrades, equipment purchase, and program improvement. Small average enrollment per institution indicates diseconomies of scale, although this is almost inevitable in rural training. In Kiribati, the number of students per instructor is low by international averages, resulting in higher costs per student. This is likely to remain a problem as too few students use fully the infrastructure. Few countries have policies to maximize the use of facilities. The effective use of time and resources does not appear to be a priority in most RTCs in Vanuatu. Teaching inputs are limited to a few hours per day, pupils are often away doing other things, and facilities often appear to be used sporadically. Teaching appears to be minimal with some centers providing only 2–3 hours of classroom and workshop instruction per day.

Low teaching loads also point to inefficient use of staff resources, although in areas of low population density this is difficult to avoid. In PNG, one technical college in Madang has an average of just 4.5 students per teacher. In Palau High School, the teacher/student ratio is just 1:3 in construction technology. In Vanuatu, the average number of students declined from 10.6–9.7 in part because of the rigidities imposed by the dual language policy. At the other extreme, FIT's average of 30 students per teacher goes too far for a tertiary institution and risks quality at the expense of economy. In Tonga, TIST trade courses average 30 students per class, high for trade classes considering the resources available.

Long courses and high dropout also indicate inefficient use of resources. In PNG, the vocational centers provide training over 2 years in basic skills. The same is done in the RTCs in Solomon Islands and Vanuatu. In many cases, the targeted skills could be provided in 3–6 months of concentrated training. In some countries, dropout is not a major factor, e.g., in the Fiji Islands and Vanuatu where completion rates appear to be 80–90%.

However, completion rates are relatively low for the associate degree (2-year) program in both COM and CMI. From 2001–2005, CMI took an average of 8.8 semesters for students to graduate in business and computer science compared with a norm of 4. Completion rates reportedly were only 10% in accounting, business administration, and computer science. The weak educational background among entering students was a major contributing factor. High dropout and repetition rates lead to high costs per graduate. At CMI, the average cost per graduate from the business and computing

department would be \$22,000 with full efficiency. However, with repetition and dropout factored in, the actual costs approach \$50,000 per graduate.

Between 2003 and 2005, only about 5% of the enrollment at the Department of Technical Education of the Palau Community College graduated (compared with a norm of 50% with full efficiency). Reportedly, the factors responsible were dropout, repetition, changing programs, accepting employment, and migration abroad.

Improving Resource Use Efficiency. The first step in this is for institutional managers to calculate the actual total costs of their training. This may mean getting access to additional information of expenditure, such as salaries and allowances of staff. Such calculations of total costs would establish a baseline for monitoring progress. The introduction of CBT reduced dropouts and increased throughput in two institutions where it was adopted—NUSIOT in Samoa and VIT in Vanuatu. Shortening the length of training, e.g., through modular training, can reduce overall costs and use teachers more intensively. Enforcing minimum class sizes can help, as well as enforcing minimum teaching loads by instructors.

The delivery cost of outreach programs in atoll economies such as Kiribati and RMI constitute 80–90% of total training costs. The disproportionate ratio of delivery to total costs is one main reason for the paucity and low quality of training programs in the outer islands. In such cases, attaching informal sector training programs to existing educational infrastructure would be justified for reducing delivery costs and freeing resources for program development and improving quality.

Providing informal sector training programs using ICT-based open- and distance-learning (ODL) modes could significantly reduce the delivery costs of certain types of training for outer island target groups, e.g., small business training, entrepreneurship, and self-employment-oriented programs. But experience from TTI, which received funding from AusAID to conduct online training from Australia in the early 2000s, shows that the telecommunications costs of running such programs in the Pacific is high and the institutional capacity needed for monitoring and following up ODL programs substantial. These twin constraints are unlikely to be overcome by individual atoll economies in the near future.

Use of Financial Transfer Mechanisms

Greater attention should be given to financial transfer mechanisms (i.e., the way funds are allocated and disbursed) to achieve greater effectiveness and efficiency in TVET. The present review has found no cases of use of financial transfer mechanisms, e.g., payment for results. Instead, budgets are allocated based on history regardless of performance. Training funds have proved to be effective in stimulating innovation and achieving efficiencies. Examples include the ADB-funded Employment-Oriented Skills Development Project in PNG (Box 4.8), the NTC fund in RMI, and the donor-supported capital fund for innovation in Vanuatu. However, training funds have been underused in the Pacific.

Box 4.8: Training Funds for Sustainable Skills Development in PNG

The ADB-funded Employment-Oriented Skills Development Project in Papua New Guinea (PNG) established a donor-government training fund to provide a permanent source of financial support to informal sector training. The fund was managed by an experienced professional and the accrued interest from the invested capital (about K50 million) was used to cofinance short-term employment-oriented skills training conducted by vocational centers, churches, nongovernment organizations, and private training providers. As long as the annual interest generated by the fund was equal to, or greater than, the annual expenditure on skills training, sustainability was assured.

The fund was slow in starting because of requirements for special legislative and bureaucratic measures, and the need for individual provinces to contribute first to the fund's capital before qualifying for its resources. Consequently, disbursements only got underway in late 2003, i.e., almost 3 years after the project began. By mid-August 2006, the fund had cofinanced 151 short training activities for some 2,500 beneficiaries in four provinces. In financial terms, this represented only about 6% of the accrued interest that had been generated by that date. Sustainability, therefore, was not a problem, mainly because the volume of activity was still low.

Despite a slow start and the need to streamline administrative procedures to increase the level of disbursements, the fund appears to have had some added benefits. Thus, through the required provincial contributions, it increased the financial commitment to skills training in the provincial level, while stimulating development of local training markets where it operated. By mid-2006, provincial contributions to the fund totaled some K2.2 million and 88 different training providers had accessed fund resources. Moreover, as the fund covered only a part of the total training costs, both providers and participants contributed to the cost of programs, resulting in a degree of broad-based ownership not normally associated with project-financed skills training activities.

Source: PNG in-depth report.

5

PRIORITIES AND STRATEGIC OPTIONS



It is no mystery what good skills development requires market analysis of employment opportunities, including income generation in the informal sector; skills standards developed in close collaboration with employers; adequate inputs in terms of qualified and up-to-date instructors, equipment, and consumables; quality assurance in testing for competencies acquired; and feedback from the market.

Priorities

The background and in-depth country reports suggest that TVET priorities vary country by country. Appendix 4 summarizes the priorities by country.

Common TVET priorities can also be identified by country group. In general, the top priority in land-rich, low-income countries (group 1) is training for the informal sector, which means rural agriculture and related occupations. Top priorities for the small, vulnerable island countries (group 2) are also for the informal sector, but with special emphasis on delivering services to those in remote places such as the outer islands. Financial sustainability is also a major challenge for this group, making TVET systems affordable in some countries (Tuvalu) and reducing dependence on external financing in others (Kiribati, RMI, and FSM). Where possible, people should be trained to enable them to migrate at higher wages than if they had received no training. The top priorities for the “advanced” island states (group 3) are expanding training for the wage sector and filling vacancies generated through emigration.

Two areas have priority across all country groups—quality improvement and organizational development. Within the former, the principal means is establishing national qualification frameworks (NQFs). These are especially important in countries that export skilled labor. The latter stresses establishing or strengthening apex training organizations and national qualification authorities.

The following sections summarize the identified priorities by country group.

Group 1: Land-rich, Low-income Countries (PNG, Solomon Islands, and Vanuatu)

- Priority 1: Training for the informal sector—mainly rural agriculture
 - (a) PNG—training for the informal sector, integrated support for self-employment;
 - (b) Solomon Islands—training for the informal sector, establishing mobile skills training; and
 - (c) Vanuatu—rural training strategy, developing income-generating programs for rural adults and women.

- Priority 2: Organizational development
 - (a) PNG—creating a stronger national training organization;
 - (b) Solomon Islands—creating a national skills training council; and
 - (c) Vanuatu—strengthening NTC.
- Priority 3: Quality improvement
 - (a) PNG—training fund for improving technical centers and vocational centers;
 - (b) Solomon Islands—creating a national skills training fund, development of instructor training, and improving infrastructure and training equipment; and
 - (c) Vanuatu—improving the quality of RTCs, developing Vanuatu qualifications framework and practical training in secondary schools.

Group 2: Small, Vulnerable Island Countries (Kiribati, RMI, FSM, and Tuvalu)

- Priority 1: Equity—outer islands, women, adults
 - (a) Kiribati—building on junior secondary school infrastructure as base for mobile training, build training capacity for gender, poverty, and employment;
 - (b) RMI—training for the outer islands and skills training for women; and
 - (c) Tuvalu—training for out-of-school youth and livelihood skills for adults' entrepreneurship.
- Priority 2: Efficiency, sustainability
 - (a) FSM—reducing dependence on external financing of TVET; consolidating, coordinating, and mobilizing resources;
 - (b) RMI—establishing a TVET trust fund; and
 - (c) Tuvalu—mobilizing additional resources for TVET.
- Priority 3: Others
 - (a) FSM—quality: establish the National Training Institute, renovate TVET facilities, organization: establish a TVET council and TVET policy/action plan;
 - (b) Kiribati—relevance: expand TTI range of skills, quality: expand skill testing, organization: establish apex TVET organization;
 - (c) Nauru—quality: introduce franchise programs, upgrade trainers and facilities, organization: form a national skills development body; and

- (d) Tuvalu—strengthen TMTI, improve quality of vocational subjects in secondary schools, achieve better direction and management of TVET.

Group 3: “Advanced” Island States (Cook Islands, Fiji Islands, Palau, Samoa, and Tonga)

- Priority 1: Expanding training for wage sector
 - (a) Cook Islands—building of in-country training capacity,
 - (b) Fiji Islands—review of TVET outputs by all providers, expanding TPAF, and establishing a training fund;
 - (c) Samoa—expanding training outputs in areas of critical shortage;
 - (d) Tonga—addressing skills shortages through close cooperation with employers and a more flexible training supply.
- Priority 2: Quality improvement (qualifications frameworks), raising standards
 - (a) Cook Islands—strengthening existing institutions and programs;
 - (b) Fiji Islands—NQF, quality audit of MOE vocational training centers, franchise programs, and FIT;
 - (c) Samoa—NQF and converting all programs to CBT; and
 - (d) Tonga—NQF, strengthening training standards, establishing a system of certification and accreditation, and developing CBT.
- Priority 3: Organizational development
 - (a) Cook Islands—coordinating all postsecondary training;
 - (b) Fiji Islands—defining clear organizational structure and roles among key providers and stakeholders, establishing a national coordination agency, preparing a costed national training plan;
 - (c) Samoa—establishing/strengthening SQA and developing a national TVET coordination plan; and
 - (d) Tonga—establishing the National Qualifications and Accreditation Board and developing a national policy on TVET.
- Others: Fiji Islands—skills for income generation among rural people and the unemployed.

Strategic Options—A Guide for TVET Decision Makers

Developing a strategy involves specifying objectives, means, and steps in priority and hierarchical order. It also involves selecting among alternative means of achieving the goals. Strategies can be developed only by the countries concerned, but this review presents a menu of options. The overall objective of reform in Pacific TVET is to provide adequate supplies of competent skills for wage and self-employment. Following from the analysis in Chapter 4, countries wishing to pursue the above priorities could select from a range of strategies.

TVET decision makers need to focus on five central questions:

- How can the training outputs be linked more closely to economic demands, i.e., how can a demand orientation be built into the system?
- How can quality and mastery of competencies be raised?
- How can skills be distributed more equitably by region, income, and gender?
- How can skills development be organized and managed more effectively?
- How can dependence on public financing be reduced, resources mobilized, and existing resources used more efficiently?

Economic Relevance

The following tables summarize the possible objectives, means, and steps for TVET reform in the Pacific.

A reform strategy to build economic relevance would focus on building a demand orientation into the system. This could be accomplished by establishing an overall training authority with strong representation for employers. Another key element would be developing and systematically using market information to guide TVET offerings, including labor market surveys and tracer studies on the destination of graduates. Data should be collected systematically on the emigration of skilled labor and hiring of expatriates. Qualitative information, such as consulting groups of “key informants,” constitutes an important source of information about market trends. A third element would be to diversify the occupational composition of service offerings to meet changing market needs. Developing apprenticeships is an important means to expand outputs closely related to employer requirements. Flexible supply response is equally important. TVET systems must become more agile in responding to demand. This cannot easily be done in lengthy, time-bound training programs.

The general strategy should be to concentrate on generic skills, and defer specialization until close to entry to the labor market when the job demands come into sharper focus. The strategy should also provide for upgrading and retraining of those in the labor market. TVET systems would thus serve a broader clientele—not just school-

Table 5.1: Economic Relevance—Means and Steps

Objective	Means and Steps
1. Enhance the economic relevance of the TVET system	<ol style="list-style-type: none"> Develop labor market information: <ul style="list-style-type: none"> establish periodic labor force surveys; develop capacity for tracer studies of graduates; and develop capacity to analyze and use results. Achieve a demand orientation: <ul style="list-style-type: none"> involve employers more in guidance and direction of TVET; and change NTC and board membership to emphasize employer views. Reorient much of TVET to skills needed in the informal sector and expand services offered: <ul style="list-style-type: none"> start with analysis of the rural labor market; through value-chain analysis, identify growth areas and occupations in demand; analyze supply chain and human resource constraints; and undertake special programs to mitigate youth unemployment (see detailed strategy in “Strategic Options for the Rural and Informal Sector,” a few pages hence). For the wage economy, change profile of training supply to address shortages: <ul style="list-style-type: none"> expand apprenticeship-training systems. Introduce flexible supply responses: <ul style="list-style-type: none"> shorten training, introduce modular training with flexible entry/exit, follow competence- rather than time-based instruction; develop vibrant private training markets; and use contract training.
TVET = technical and vocational education and training, NTC = National Training Council. Source: ADB/PIFS Expert Team, 2007	

based, but concentrating more on upgrading the skills of workers and involving workers and adults in lifelong learning. Shorter, modular training instills greater flexibility into training systems. Investment in costly equipment and long-term teaching staff militate against flexibility and often lead to delivering the same courses every year because the means of teaching exist.

Private training providers tend to be more attuned to market changes, as their livelihoods depend on placement of graduates in appropriate employment. Vastly expanded entrepreneurship training and service for micro- and medium enterprises has to be a major emphasis, since the vast majority of people will be self-employed in the informal sector. A detailed strategy for rural informal sector training is presented below, in Table 5.6.)

Quality

A primary objective in Pacific TVET is to achieve a more effective mastery of skills competencies. This can be done by focusing on outcomes and demand rather than inputs and supply. Quality starts with defining standards for outputs and focuses on competencies achieved rather than time spent in instruction. Another key ingredient is assessing trainee competencies by an objective third party, preferably employers. CBT is not easy to implement, as seen in PNG. It requires sufficient equipment for all trainees to participate in skill exercises, and teachers skilled in different methodologies. CBT can increase the effectiveness of training exponentially (as done by VIT), but quality costs money. CBT cannot be done well without sufficiently trained and practiced instructors with sufficient work experience, or without minimum standards of functioning equipment and

Table 5.2: Quality—Means and Steps

Objective	Means and Steps
2. Increase the quality of skills acquisition	<ol style="list-style-type: none"> 1. Establish standards: <ul style="list-style-type: none"> • implement national qualification frameworks based on employer-ratified standards; and • establish international benchmarks where appropriate. 2. Introduce quality assurance procedures: <ul style="list-style-type: none"> • carry out periodic quality audits; • strengthen procedures for accrediting and certifying training providers, including private training providers; • introduce follow-up monitoring and evaluation of impact; • implement and improve trade testing systems; and • involve third parties (i.e., external, preferably employers) in assessing graduates. 3. Where possible, concentrated training on-the-job or in dedicated, stand-alone institutions is preferable to prevocational training in schools. 4. Introduce or expand competency-based traininga 5. Improve instructor performance: <ul style="list-style-type: none"> • strengthen programs of preservice training; • conduct skill audits and training needs analysis of instructional staff; • introduce periodic in-service upgrading; • identify and monitor key performance areas as part of teacher evaluation; and • introduce merit-based selection and compensation. 6. Provide the necessary physical inputs: <ul style="list-style-type: none"> • provide funds for renovating facilities; and • invest in upgrading equipment and maintenance programs. 7. Use training funds to stimulate innovation.

a Defined as training that focuses on occupational standards with students assessed on the achievement of those standards.

Source: ADB/PIFS Expert Team, 2007.

adequate supplies of consumables. The place to start, however, is employer ratification of training standards. The place to end is with employer ratification of achievement of the standards to their satisfaction.

Equity and Access

In view of the low chances for young people and adults to acquire skills through formal and nonformal programs, and the importance of those skills for employment, self-employment, and income generation, a key objective for TVET systems in the region is to broaden coverage and expand the quantitative output of skills to meet economic requirements. This includes technology-related training, but especially nonformal skills training and training for the informal sector. Countries should construct an “index of opportunity”¹ for TVET, similar to the commonly used enrollment ratios at basic and secondary education. This could be used as a benchmark to monitor progress in increasing access. Mobile teaching tends to be expensive and fraught with logistical difficulties. However, it may be appropriate in some cases, such as Vanuatu, provided care is taken to keep it simple. It is difficult to maintain heavy equipment over rural roads.

Breaking the bottleneck on output of trained instructors is another important step, especially expanding the output of female instructors as has been done by the Don Bosco

Table 5.3: Equity and Access—Means and Steps

Objective	Means and Steps
3. Increase equity and access for marginal groups	<ol style="list-style-type: none"> Expand technical and vocational education and training (TVET) delivery capacity and coverage of the population: <ul style="list-style-type: none"> shorten the length of training and introduce modular training; train and hire more instructors; capitalize on information and communications technology and distance learning to broaden access; and track progress through an “index of opportunity.” Reach rural areas and outer islands: <ul style="list-style-type: none"> See Table 5.6. Increase female participation rates in appropriate courses: <ul style="list-style-type: none"> provide scholarships and incentives; construct necessary facilities for female trainees at TVET institutions; broaden instructional programs to include such occupations as catering, hospitality trades, and office management; and increase the number of female instructors.

Source: ADB/PIFS Expert Team, 2007

1 Comparing the annual intake into TVET institutions by gender, region, and income group to the number of school-leavers.

Technical Institute in PNG. Implementing community-based campaigns to increase the appreciation of the value of training will also help. Relieving financial constraints—the direct or opportunity costs—to low-income people can also increase access, including scholarships or stipends for girls. Raising gender awareness can also help through gender-sensitive training materials and developing the attitudes of managers of training institutions. Opening boarding and hostel facilities could also increase the proportion of females enrolled. Establishing targets by gender and monitoring results is an essential first step to greater equity.

Organization and Management

National training authorities can help direct a more coherent training system, but they must be implemented effectively with sufficient resources to carry out their diverse functions. These functions include developing management information about training demands, formulating training policies, quality assurance through accreditation, and collecting and monitoring of information on system performance. They may also be called upon to manage national qualification frameworks. As stated, the most important principle is for the national training authorities to be employer driven. They must also develop the capacity to analyze the outputs and outcomes of training, and use this as a basis for policy formulation.

Table 5.4: Organization and Management—Means and Steps

Objective	Means and Steps
4. Improve organization and management effectiveness	<ol style="list-style-type: none"> 1. Develop or strengthen apex technical and vocational education and training (TVET) organizations: <ul style="list-style-type: none"> • create clear mandates to coordinate; • put employers in lead position; and • ensure that the apex organizations are adequately resourced to carry out their responsibilities. 2. Develop TVET plans where needed (Federated States of Micronesia, Fiji Islands, Kiribati, Republic of the Marshall Islands, and Tuvalu), but concentrate on costing, budget, and action plans for follow through. 3. Devolve authority to institutional managers, subject to stakeholder boards (colleges in Papua New Guinea): <ul style="list-style-type: none"> • establish accountability for results; and • provide opportunities for management development. 4. Establish standards for institutional and system managers and evaluate performance against these standards. 5. Strengthen TVET management-information systems and analytical/research capacities as basis for policy making.

Source: ADB/PIFS Expert Team, 2007

A clear division of responsibility needs to be established between central authorities and training institutions. The center should be responsible for such functions as policy, quality assurance, financial allocations, and monitoring and evaluation. Training institutions should be placed under boards of stakeholders, particularly at the postsecondary technical level. Greater authority should be devolved to training institutions and their boards so that they can find their own markets, and help mobilize and keep their own resources. Continuous in-service management development will be important for both groups to be able to fulfill their functions. TVET plans and policies would be an important step to lay out priorities and strategies to achieve them. However, such plans are likely to be meaningless unless accompanied by resources and political will.

Financing and Internal Efficiency

Two sides of the same coin are mobilizing additional financing and making better use of what TVET institutions already have. Governments must realize the costs and importance of TVET so that it receives its reasonable share in budget allocations. TVET institutions should be allowed to augment operating income by providing short courses on a fee-paying basis and by producing goods and services for retained income. Employer contributions also need to be stimulated, perhaps through sponsorship of trainees or donations of used equipment. Private training provision, where it meets minimum quality standards, can provide citizens with useful skills at little or no cost to government. Government should recognize and encourage nongovernment and church agency training, which tends to be high quality and often serves lower-income segments of the population. Where possible, external financing should fund TVET projects, such as those by country in Appendix 5 and regional projects recommended later in this publication.

Table 5.5: Financing and Internal Efficiency—Means

Objective	Means
5. Achieve greater internal efficiency and sustainability in technical and vocational education and training systems	<ol style="list-style-type: none"> 1. Adopt policies on cost recovery together with scholarships. 2. Get enterprises interested. 3. Encourage private providers. 4. Calculate unit recurrent costs and costs per graduate—and monitor them. 5. Shorten length of training. 6. Introduce competency-based training and modular training. 7. Define and enforce minimum class sizes and teaching loads. 8. Make more use of contract teaching. 9. Use transfer mechanisms, e.g., payment for results.

Source: ADB/PIFS Expert Team, 2007

Strategic Options for the Rural and Informal Sector

Training strategies for this sector should be based, where possible, on an analysis of the value chain and identification of growth areas of the economy (Appendix 5 for detailed steps under each means.

The above set of options is comprehensive, systematic, and—taken completely—likely unfeasible. It has too many items to be carried out at once. As stated, preparing strategies requires selecting from alternative means of achieving the objective. To guide the process of selection, interventions likely to have the greatest impact would include organizational and management development; mechanisms to focus on outputs, such as CBT, tracer studies, trade testing, and monitoring and evaluation; development of better information on which to base decisions at the national and institutional levels; and in-service upgrading and updating of instructors.

Table 5.6: Objective and Means by Country Group

Country Group	Objective and Means
<p>1. Land-rich, low-income countries (PNG, Solomon Islands, and Vanuatu)</p>	<p>Objective 1: Improve the relevance and effectiveness of existing rural training centers (RTCs). Means 1: Reorient RTCs toward short-cycle skills development programs linked to employment and income-generation opportunities in the local economy. Means 2: Improve the quality of RTC training. Means 3: Strengthen links between RTCs and the agricultural economy. Objective 2: Enhance the capability of NGO training providers to deliver community-based skills training at the local level. Means 1: Strengthen existing NGO capacities to identify training needs and income-generation opportunities at the local level. Means 2: Support the development of short outreach training programs and related audiovisual materials to support community-based training. Means 3: Strengthen the existing pedagogical capacity of NGO trainers. Objective 3: Promote increased cooperation and coordination in local skills development between government departments and NGO training providers. Means: Create a joint government–NGO organizational framework and procedures for promoting increased coordination and cooperation in planning, implementing, and funding nonformal skills development programs.</p>
<p>2. Small, vulnerable islands (Kiribati, RMI, FSM, Nauru, and Tuvalu)</p>	<p>Objective 1: Improve access to short-cycle skills development programs in remote or outer islands. Means 1: Identify economic opportunities and training needs of outer island populations. Means 2: Design and develop short-cycle modular training programs linked to pre-identified and assessed income-generating opportunities in the outer islands. Means 3: Develop cost-effective delivery systems for skills training in remote and outer islands (see project proposals in Chapter 7). Objective 2: Actively engage the NGO community in providing short-cycle training programs dealing with livelihood skills for women, out-of-school youth, and other vulnerable groups. Means: Strengthen the existing capacity of NGOs to identify design and deliver livelihood training to women, out-of-school youth, and other vulnerable groups on remote and outer islands.</p>
<p>3. “Advanced” island states (Cook Islands, Fiji Islands, Palau, Samoa, and Tonga)</p>	<p>Objective 1: Provide increased training opportunities for school-leavers. Means 1: Expand intake into existing programs. Means 2: Establish new community-based training programs. Objective 2: Improve the quality of nonformal skills training. Means 1: Improve the quality of training inputs. Means 2: Improve the quality of the training process and outcomes. Objective 3: Develop entrepreneurial skills for increased self-employment. Means 1: Promote increased entrepreneurship training. Means 2: Promote linkages between training and the private sector. Means 3: Develop flexible and cost-effective open- and distance-learning systems for entrepreneurship training. Means 4: Create a conducive environment for promoting self-employment in the informal sector.</p>

FSM = Federated States of Micronesia, NGO = nongovernment organization, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, RTC = rural training center.
Source: ADB/PIFS Expert Team, 2007.

6

CONCLUSIONS AND RECOMMENDATIONS FROM THE ANALYSIS¹



Overview

The region is diverse and at different levels of development. This review's findings and recommendations, therefore, do not apply to all countries.

Following are the five top priority conclusions and recommendations flowing from the above analysis:

- The informal sector is the dominant segment of the labor market in most PICs and is where most school-leavers will have to find employment. Training for the informal sector has to become the top priority. This means sufficient new resources should be allocated for informal sector training, training strategies designed, and capacity built to support the rural and informal sectors, in part by boosting the technical expertise and delivery capacity of NGOs.

- Many issues in TVET derive from inappropriate and unclear organizational structures. Getting the structure right is, therefore, the first step to more effective TVET systems. Where possible, TVET systems should be governed by apex organizations such as national training authorities. These apex organizations should be based on partnerships among stakeholders and driven by those who represent demand for skills (i.e., employers). These apex organizations should have executive authority to link training supply with demand; to coordinate providers; to set priorities, policies, and directions; and to allocate resources.

- Choices about where to invest in skills development should be based on evidence of cost-effectiveness. Enterprise-based training should be expanded, e.g., apprenticeships, and institutional training needs to be closely linked with the labor market. However, rather than investing in integrating TVET into general secondary or primary schools—which is expensive, difficult to do well, and usually fails to confer better labor market outcomes on graduates—resources should be allocated to intensive training programs that are well grounded in the labor market and that target those who are in, or about to enter, the labor market.

- Quality in skills development requires three elements: occupational standards, sufficient inputs, and measurement of outputs against those standards. The development of occupational standards should be pursued through the design of NQFs, if the NQFs focus on outputs (competencies) rather than inputs (courses required), and avoid complexity. Minimum standards should be set for public TVET institutions and they should be subject to accreditation and periodic quality audits. In addition, output indicators should be defined and measured against the standards. Information on the impact of training should be developed, e.g., tracer studies of graduates, and factored into training policies and resource allocations.

¹ Appendix 7 presents the main points from the final workshop held in Nadi, Fiji Islands, on 8–10 May 2007.

- Current incentives in PIC TVET systems result in inertia. Budgets are given year after year regardless of performance. This review recommends that incentives be changed for those managing skills development. Managers of training institutions should be given authority through devolution, along with accountability for results. Results should be compared against targets and budgets should be allocated according to performance. At the same time, managers should be enabled to develop their capacities through in-service management development programs.

Tackling the reforms previously outlined would justify substantially increased public and private investment in skills development.

Relevance to Economic Requirements

TVET systems in the Pacific are relatively small in relation to enrollments in formal education, and make up relatively small proportions of the MOE budgets. However, TVET is increasingly important for national development because of the burgeoning number of youth who need training for the informal sector, because of skills needed for competitiveness in the global economy, and to fill skills shortages caused by economic growth and migration.

Recommendation: In view of its importance for national development, TVET should be accorded a prominent place in national development strategies and programs.

The introduction to this publication posed a series of questions, the first of which was: What is the purpose of TVET and skills development? The purpose is preparing for work and providing a livelihood, either in the formal or informal sector, not preparing for further education. A mental shift is needed. TVET should not be viewed as synonymous with education. TVET is providing service and should be demand, not supply, oriented. Moreover, efforts at “articulation” between TVET and higher levels of education should be treated with caution. Financing students through a series of TVET levels, or using TVET as a stepping-stone to further education, is not cost effective in achieving preparation for employment.

Recommendation: As a rule, it is more cost effective to defer skills development and specialization until the trainee is close to entry to, or already in, the labor market.

What is the balance between the supply and demand for skills in the Pacific? Demand–supply imbalances characterize the labor markets in many PICs and affect adversely the development of PIC economies. This takes two forms. First, shortages of skilled labor occur in the formal economies in several PICs. Second, surplus unskilled labor occurs in the formal sector of almost all countries in the region leading sometimes to significant youth unemployment. Consequently, more and more people have to work in the informal sector or emigrate, and need skills to do so productively.

The imbalances in the formal sector of the labor market are caused by (i) job creation from economic growth, (ii) inadequate supply chains, as in PNG; or (iii) emigration of skilled workers (as in the Cook Islands, Fiji Islands, RMI, and FSM). Emigration has advantages—it relieves unemployment, and in the southern rim countries contributes to substantial remittances. However, it also creates or exacerbates skills shortages.

Recommendation: Build up training for the wage sector in countries with high emigration, and include training to international standards to support emigration in view of its benefits (i.e., remittances and reduced unemployment).

Imbalances in the informal sector are caused by (i) excess new entrants to the labor market in relation to the generation of wage jobs in the formal sector, and (ii) inadequate attention to the needs for skills in the informal sector. One main finding of this review is the relative neglect of training for the informal sector. Formal education and training systems in PICs are unable to meet the learning needs of a growing number of vulnerable and disadvantaged groups who lack the technical and entrepreneurial skills to find a job or launch a small business. School-leavers are the major group affected, but rural women, the unemployed and underemployed adults, people with disabilities, and the dispossessed all require access to alternative learning opportunities if they are to improve their livelihoods, preserve their fragile environments, and escape rural and urban poverty. Training is an important requirement for the informal sector, self-employment, and better livelihoods. However, this is being handled haphazardly and with insufficient funding.

Recommendation: Training for the rural and informal sector must be placed at the top of the training agendas of most PICs. It must become a national spending priority to address the needs of the great majority of youth, women, and rural poor. Specifically, training plans should be prepared for the rural informal sector (e.g., Vanuatu), and the delivery capacity vastly improved. Target groups should be broadened, to cover not just school-leavers but also adults, especially women. Given the high incidence of subsistence farming, nonformal training for entrepreneurship and self-employment needs to be linked to the creation of value-added business in the agricultural economy. The delivery capacity of NGOs and other providers needs to be greatly strengthened (see below).

How can economically relevant TVET systems be built or strengthened in PICs? Three essential requirements exist: (i) adequate information; (ii) close linkages with the labor market, particularly with employers; and (iii) a flexible, responsive system of TVET supply. Each requirement is addressed in sequence below.

Most TVET systems in the region tend to operate in the dark both on skills demand and on supply. They lack feedback from their markets, such as labor market studies and tracer studies on the destination and performance of graduates.

Recommendation: Build national capacities to carry out labor market studies, tracer studies, and impact analyses, and factor this information into training policies.

The demand, or employer, side is underrepresented in the planning and direction of TVET systems. Similarly, communities tend not to be involved in identifying training needs for the informal sector. As a result, training operates in isolation and is supply driven. Engaging employers is not a simple matter for TVET systems. Employers' time carries a premium. Moreover, some employers have not thought through their skills requirements.

Recommendation: Increase to parity or a majority, employer representation in national training organizations. However, the challenges in engaging employers should be recognized. Their involvement should be concentrated on strategic inputs, such as overall planning and direction of the TVET system, identifying skill requirements, and evaluating the quality of skills produced.

Training supply, inadequate in numbers in many countries, also tends to be overly rigid in response to changes. Public training almost by nature tends to be resistant to change, in part because of long-term teaching staff contracts that need to be honored, and expensive investments in facilities and equipment that need to be made. The incentives are to continue the same programs year in and year out.

Recommendation: Make TVET more responsive to changes in the labor market by changing management incentives, introducing short-term contracts for instructors, replacing long-term training with modular programs, accommodating on-the-job training, and using CBT.² In places where the demand can be met quickly, such as rural and remote areas, mobile equipment may be considered, or training equipment can be lent to training institutions (it can be redeployed after saturation is reached).

Quality and Effectiveness of Training Provision

Where should training be provided? Training is mainly given in three places—schools, training centers, and enterprises. Most skills acquisition takes place on the job, not in training institutions. Training on the job may be the most effective means of delivery. Training in purpose-built centers can also be highly effective, as seen in TPAF in the Fiji Islands, if it is well linked to the requirements of employers. Integrating TVET into general secondary schools may be politically appealing, but it is difficult to put into effective practice for three reasons. First, trained instructors are in high demand but in short supply. Second, TVET is costly and budgets may be insufficient to cover the nationwide costs of equipment, maintenance, and consumable supplies for all schools. Third, the

² Defined as training that focuses on occupational standards, with students assessed on the achievement of those standards.

dominant ethos of secondary schools favors academic, examinable subjects rather than vocational pursuits. Moreover, TVET in secondary schools apparently does not confer advantages in the labor market on the recipient. Prevocational courses are delivered in most countries of the Pacific, but apart from Palau, this review found little evidence of effectiveness.

Recommendation: Where possible, expand apprenticeships and support for on-the-job training. Expand successful institutional training that is linked closely to the labor market, i.e., for the formal sector links with employers through work attachments—PICs generally have good intentions here—and for the informal sector through links with communities. Rather than investing in integrating TVET in general secondary or especially primary schools that is bound to be costly and difficult to implement in multiple schools, allocate the resources to purpose-built training institutions targeting those who have finished school and are in, or about to enter, the labor market.

Standards, Outputs, and Monitoring

Developing standards is the first requirement for quality training. Customers and employers should play a major role in determining standards. Standards should be expressed in terms of competencies (output requirements), not inputs. NQFs are being developed in many countries of the region. However, there may be overexpectations and underappreciation of the work involved in establishing NQFs. The difficulties and dangers in NQF systems should be recognized: tendency to overcomplexity and heavy staffing burden in establishing and maintaining NQFs. The second requirement is to identify and measure outputs and outcomes. Quality is difficult to ascertain in much of Pacific TVET because feedback and evaluation are lacking to provide information about outputs and outcomes, except for PNG, NATTB; Fiji Islands, TPAF trade tests; and Vanuatu, VIT competency tests.

Recommendation:

- NQFs should be designed to focus on outputs (competencies required), not inputs (courses). They should endeavor to avoid complexity.
- Output and outcome indicators should be developed and used as benchmarks to improving quality.
- Minimum standards should be set for public institutions. Public TVET systems should be subject to quality audits and accreditation, similar to that for private training providers (Fiji Islands, MOE; PNG, vocational centers).
- Postsecondary technical institutes should undergo periodic quality audits against regional and international benchmarks (e.g., Fiji Islands, FIT).

- The review endorses the work of PATVET and South Pacific Board for Educational Assessment in developing a regional qualifications register.

Postsecondary technical institutions are the key TVET institutions in the region. They have a special role to play in TVET reform, for example, FIT and its franchise program.

Recommendation: Postsecondary technical institutes should be used to support quality improvement of TVET systems. In this context, the proposed Australia–Pacific Technical College (Appendix 5) could make a major contribution to raising standards, but direct assistance to technical training institutes is also likely to be necessary.

Equity

Who should be trained, and to what extent are they trained? The review found that access to TVET is distorted in the Pacific. The most disadvantaged are females, low-income groups, and those living in remote areas. The FIT franchise program has helped improve access in rural areas to postsecondary technical training. TVET also suffers from a stigma in secondary education as a second-class option. This attitude can be countered best by allowing possibilities for further training through TVET—as the FIT franchise program does—and by linking TVET to well-paying wage jobs.

Recommendation: Countries should construct an “index of TVET opportunity” that compares annual intake into training (by gender, region, and income group) to the number of terminal school-leavers. Training opportunities for women should be broadened to promote their active participation in nontraditional trades and management-related subjects.

Training for the rural and informal sector in the Pacific suffers from low status in the eyes of parents, participants, and the community at large. This lack of esteem results, in part, from the lack of recognized qualifications associated with such training.

Recommendation: Informal sector training programs should be incorporated into national qualification frameworks, as is being done in PNG and Vanuatu. This could create greater interest and support for these programs and provide a quality standard against which to measure performance.

NGOs and other grassroots organizations play an important role in providing nonformal education in the rural and informal sectors of PICs. However, their ability to identify needs and to design and deliver effective labor market-oriented programs, is often weak, and needs to be strengthened by introducing relevant training methodologies and staff development.

Organization and Management

TVET is arguably the most difficult subsector to organize and manage. TVET systems in the Pacific suffer from a variety of weaknesses. These include unclear mandates (RMI, PNG, Solomon Islands, and Tuvalu), lack of coordination (the Fiji Islands and PNG), overcentralization (PNG at postsecondary level) and fragmentation (the FSM and most rural training). Other issues include low accountability for results and lack of coordination between government and NGO providers in training for the informal sector. Most of these issues are structural. Getting the organizational structure right is the essential first step to more effective TVET systems.

How should TVET be organized? First, TVET should be directed by partnerships of those representing the demand and stakeholders. Second, TVET should be elevated above ministries and managed as a service in apex institutions. Several national training councils already exist in the region, but are dominated by the public sector and have inadequate employer representation.

Recommendation: Where possible, TVET systems should be governed, planned, and guided by apex organizations such as national training authorities that are based on partnerships among stakeholders, particularly those representing demand (employers and communities). These apex organizations should link training demand with supply; coordinate training providers; set priorities, policies, and direction; and allocate resources. In short, they must have executive, not merely advisory, powers.

Part of the clarification needed is to differentiate the respective roles of government and the private sector. Just because the public sector needs to finance training does not also mean it must provide training—particularly if nongovernment institutions can provide needed skills at reasonable cost. The government cannot do everything and the private sector needs to help.

Recommendation: The functions of the public sector should be to develop TVET policies, carry out regulatory functions and accreditation, train instructors, collect data on TVET, monitor and evaluate TVET, coordinate efforts, and finance training both for equity reasons and to narrow skills gaps. In particular, the governments' role in supporting rural and informal sector training in PICs is inadequate and poorly defined. Governments—both national and local—should focus on establishing policy guidelines for training providers, on creating an enabling environment for the successful application of acquired skills and knowledge, and on facilitating the participation of vulnerable and disadvantaged groups in appropriate programs.

The role of the private sector should be to articulate needs and demands for training (i.e., what kind, what competencies, and how many); help to set standards for training; to provide internships; give complementary financing; and help with quality assurance.

Changing Management Incentives

Public budgets tend to be transferred to training institutions according to last year's budget without targets or conditions for performance. Managers tend not to be accountable for results. Moreover, public TVET institutions are often unduly constrained in freedom to act, adapt curricula, hire staff, and manage budgets.

Recommendation: Change management incentives. Establish performance targets based on outputs. Make budgets contingent on meeting performance targets based on outputs. Make managers more accountable for results, with incentives provided for good performance. Devolve authority to training institutions. Place postsecondary institutions under boards of stakeholders, devolve authority to training institutions so they can find their own markets, and mobilize resources (e.g., technical and business colleges in PNG). Devolution must be accompanied by accountability for results, workable financial accounting systems, and extensive management training.

TVET plans—where they exist such as in PNG, Solomon Islands, and Vanuatu—suffer from too many recommendations, lack of priorities, and lack of costing and budgeting. Little or no implementation ensues.

Recommendation: Existing plans should be translated into priorities, actions, costs, and budgets (PNG, Solomon Islands, and Vanuatu). In particular, strategies and costed plans need to be prepared for expanding service to the informal sector. Comprehensive new plans are needed in other countries, e.g., the Cook Islands, Fiji Islands, Kiribati, and FSM.

The review found that registration/accreditation of private training providers is resource intensive and consequently difficult to implement. It requires sufficient staff with expertise and travel budgets. Available resources concentrate on initial approval. Maintenance of accreditation registers is neglected.

Recommendation: Accrediting agencies should concentrate on accrediting the training institution for specific occupational training, not for individual programs or instructors as attempted in PNG). The resource-intensive nature of the activity should not only be recognized but must be budgeted accordingly (the Fiji Islands and Vanuatu).

PATVET is an embryonic organization that has considerable potential for strengthening TVET in the region.

Recommendation: PATVET should be supported as a network through which training practitioners can share experiences. PATVET should also develop into a service organization to provide support to its members. Regional projects have been proposed to launch this service in organization and management support (regional project no. 1), and financial support (regional project no. 2).

Finance and Internal Efficiency

Who should pay for training? Clearly, the government has a major role in financing TVET, particularly for purposes of equity, and it has to overcome critical skills shortages that are unmet by the private sector. However, its role in financing training does not mean that the government should automatically provide training. Subsidizing nongovernment training providers may be a better solution than through government-owned institutions. Some of the best TVET institutions in the region are nongovernment institutions—often church agencies such as Don Bosco and Montfort. To the extent that these institutions can accommodate trainees at less than full cost to government, they provide essential services that save public resources.

Recommendation: Where public money is limited, those who benefit—individuals who benefit through higher income and enterprises that benefit through raised productivity—should finance training increasingly. The Government should encourage the development of nongovernment and private training institutions that meet and exceed minimum standards of quality.

Overall, TVET systems appear to be underfinanced in most places in the Pacific. Available resources do not approach the needs. As a result, public TVET institutions tend to be chronically underfinanced in qualified staff, operable equipment, and consumable supplies, and consequently are unable to carry out their functions properly. This raises the question: Should TVET even be attempted, when budgets are insufficient to provide minimum standards? The answer may lie in mobilization of nonpublic resources.

Recommendation: In addition to raising contributions already mentioned, create incentives for training institutions to mobilize resources (as done at FIT in the Fiji Islands). Specifically, allow training institutions to keep resources they raise through tuition, production, and other activities.

Prudent allocation must also be made of scarce existing resources in TVET. Unfortunately, the review found few examples of sustained TVET via distance teaching, except FIT's superb franchise program and USP, which uses ICT to deliver distance programs by traditional lecture methods.

Recommendation: Internal efficiency should be improved, by (i) calculating and monitoring actual costs per trainee and per graduate, (ii) reducing the length of training, and (iii) making greater use of financial transfer mechanisms (i.e., placing performance conditions on recipients), such as through use of training funds.

As the issues are tackled, governments should be prepared to invest more in TVET, and invest more wisely in the strategic interventions outlined hereafter.

Priorities by Country Group

What are the priorities by country group? The top priority in land-rich, low-income countries is training for the informal sector, which means rural agriculture and related occupations. The informal sector is also priority for the small, vulnerable island group with special emphasis on delivering services to those in remote places such as the outer islands. Financial sustainability is also a major challenge for this group, making TVET systems affordable in some countries (Tuvalu) and reducing dependence on external financing in others (Kiribati, RMI, FSM, and Palau). Where possible, people should be trained to enable them to migrate at higher wages than if they had received no training. The top priorities for the “advanced” island states are expanding training for the wage sector and filling vacancies created through emigration.

Two areas have shared priority across all country groups—quality improvement and organizational development. Within the former, the principal means is establishing NQFs. These are especially important in countries that export skilled labor. The latter requires establishing or strengthening apex training organizations.

Strategic Interventions

What interventions would make a broad impact at reasonable cost? Governments and donor agencies should consider strategic targeting of investments, such as on the following interventions that promise impact on skills development at reasonable cost.

- Focus on the definition and measurement of outputs and outcomes, not merely inputs and processes, by developing standards, trade testing, and tracer studies.
- Collect and use labor market information on which to base policy development and adjustments in training supply.
- Establish or strengthen apex training agencies, such as national training agencies and councils to spearhead TVET reform. Such organizations need to be strengthened in the RMI, PNG, and Vanuatu and to be established in other countries, such as the Fiji Islands, Kiribati, and FSM.

- Concentrate on developing management systems and managers in TVET systems at both the central and institutional levels. Introduce targets and incentives for good performance based on measurement of outputs. This should include capacity building to increase financial sustainability.

- Change the way in which funds are transferred to training providers. Make the transfers contingent on performance and results, not last year's budget. In particular, establish training funds to stimulate innovation and compensate for past neglect of capital development. Such funds are sparsely used in the Pacific.

- Strengthen NGO and government capacities to design and deliver community-based training for the informal sector, especially to remote and isolated areas and target groups.

- Harness the potential of ICT and open and distance learning to expand service delivery at reasonable cost.

The proposed regional projects (Chapter 7) incorporate these strategic interventions.

7

REGIONAL TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING PROJECT PROPOSALS



Priority Interventions

Five regional projects are proposed, three for formal TVET, and two for informal sector training. The underlying rationale is that priority activities, too small and unfeasible to be done in separate projects on a country level, could be carried out more efficiently on a consolidated, regional level. For example, it would not make sense to help various countries build capacity to do tracer studies. However, it would be reasonable to do this on a regional basis through training seminars and then follow up with short-term mentoring by experts. Similarly, technical assistance for organizational development would not require separate country projects, except perhaps in the largest PICs. Assistance could be provided to many smaller countries for organizational development through regional support.

The five proposed projects would focus on interventions identified in the previous chapter that are likely to make a wide impact on skills development in the region. These include:

- developing and strengthening apex training agencies;
- developing trade testing and tracer systems that focus on outputs and outcomes, not inputs and processes;
- design labor market information on which to base policy development and adjustments in training supply;
- developing TVET management systems to make a strong impact at modest cost;
- establishing training funds to stimulate innovation and compensate for past neglect in capital development;
- harnessing the potential of ICT and open and distance learning to expand service delivery, particularly to remote populations, at reasonable cost;
- strengthening of NGO and government capacities to deliver community-based training to the informal sector; and
- developing efficient and sustainable outreach training for the informal sector in atoll economies.

Table 7.1 gives an overview of the regional project proposals. Caveats should be noted. These project proposals are only initial concepts that respond to the previous analysis and recommendations. Substantial further work would be needed to develop any proposal into a project design that could be considered for financing. The proposed budgets include allowances for feasibility studies and project preparation. Project costing indicates only orders of magnitude, not detailed examination of requirements. The costing would need to be developed in detail along with project content during project preparation. Each concept is explained in sequence below.

Table 7.1: Regional Project Proposals

Project Title	Estimated Amount (\$000)
(1) Strengthening technical and vocational education and training (TVET) organization and management;	2,700
(2) Creating a capital development and innovation fund;	5,800
(3) Expanding service delivery through open and distance learning;	1,900
(4) Strengthening TVET programs in rural areas; and	1,800
(5) Developing outreach training in atoll economies.	1,700

Source: ADB/PIFS Expert Team, 2007.

Project 1: Strengthening TVET Organization and Management

Background

Managers of TVET systems and institutions face highly diverse challenges in the Pacific. Those in the north face challenges of making TVET systems sustainable. Those, especially, in the Melanesian countries of PNG, Solomon Islands, and Vanuatu must find ways to provide skills for income generation and self-employment for the vast majority in and entering the informal sector. TVET managers in southern rim countries face the challenge of increasing training in the modern sector to fill jobs made vacant by emigrating labor. TVET managers everywhere must raise the quality of skills acquisition and ensure its equitable access. However, TVET managers at both the system and institutional levels have been given few tools to face these challenges. In-service management development is rare.

Insufficient capacity exists within each country, except perhaps for the largest, to address these problems individually. A regional approach could combine resources to deliver services efficiently.

Specifically, scope exists for a regional approach to establishing labor market information. Decisions on skills formation need to be based on good information about the labor market. TVET policy makers and managers need to differentiate between occupations in surplus or shortage. A labor market information system would need to cover emigration, expatriate labor, informal sector, and formal sector needs. Creating an adequate system in each country based on a regional model would also be instrumental in developing and revising national skills formation plans.

Impact and Outcomes/Purpose and Objectives

The purpose of the regional project is to achieve more relevant, effective, and efficient systems of skills development in the Pacific region. The objective is to build management capacity and systems in the region to deliver skills development programs.

Means/Content

The capacity-building project would have the following six components:

- **Organizational development of apex TVET institutions.** Assistance would concentrate on preparing and implementing plans for the development of apex TVET organizations where they exist (the RMI, PNG and Vanuatu) and where they plan to be created (Fiji Islands, Kiribati, FSM, Samoa, Solomon Islands, and Tonga). Seminars would be held, with expert follow-up, to help prepare individual organizational development plans based on the lessons of successful apex institutions. Emphasis would be placed on an appropriate leading role for employers and end users.

- **Developing labor market information and tracer studies.** A regional program would be prepared on developing labor market information. Technical assistance would conduct regional training seminars on survey techniques and analysis of results. Where possible, use would be made of existing labor market information, such as surveys in Samoa and Tonga, and tracer studies in Solomon Islands and Vanuatu. The regional project would finance pilot surveys in each participating country and subsequent surveys for 2 years. Emphasis would be placed on defining readily available sources of information and simplicity to avoid the problems of developing labor market-information systems as encountered elsewhere. Efforts would be made to build on the employer surveys already conducted as part of this review, and the tracer and employer surveys carried out in Solomon Islands.¹

- **Developing TVET information systems.** Improving TVET systems is hampered ubiquitously by the lack of statistics on the dimensions, trends, and outcomes of training. The regional project would identify essential kinds of information,² and design systems to produce the information, analyze it, and use it for policy purposes. Short-term technical assistance would be provided to countries wishing to implement better TVET information systems for the design of the systems, and initial collection and analytical techniques. Regional training would be provided.

- **Developing management skills among TVET personnel.** Managers of TVET systems and TVET institutions complain about the lack of opportunity to upgrade their management and administrative skills. Management development programs would be undertaken with expert assistance. This would include regional workshops and preparation of individual management development plans incorporating specific assignments and monitoring of achievements. Sustained support would be provided to manager–trainees by establishing professional networks and mentors, both within and outside the Pacific.

¹ World Bank. 2007.

² The following types of information are essential: annual intake, enrollment, and output, by subject and gender; equivalent full-time students and instructors (to calculate the true average number of trainees per instructor); flow statistics on repetition, dropout, and completion rates; recurrent costs per trainee and per graduate; instructor qualifications and work experience; and income group of trainees.

The content would focus on financial management—mobilizing resources and using resources efficiently. Two target groups would be developed separately: system managers and institutional managers. Efforts would be made to include those likely to be promoted to management positions in the near future.

- **Assistance for developing TVET policies and plans.** National plans for TVET are needed in several countries, including Kiribati, Fiji Islands, FSM, Nauru, and Tonga. Assistance would be provided to train local personnel in methodology, and to monitor the development of the plans. Other countries need to update their plans, and work out costs, monitoring indicators, and, especially, an implementation timetable. These countries include the RMI, PNG, Solomon Islands, and Vanuatu. Regional training seminars would be held for this purpose.

- **Developing quality assurance systems,** including program evaluation and monitoring, trade testing, and accreditation and certification of private training providers. One problem with TVET now is that it fails to monitor or evaluate the qualitative outcomes of training programs in terms of competencies gained. The regional project would help build systems and expertise in program evaluation. It would also help TPAF and NATTB expand trade-testing systems to other countries that lack capacity, e.g., the RMI, FSM, Nauru, and Vanuatu. Another activity would be to strengthen or establish procedures and criteria for assessing and accrediting private training providers. Seminars and training programs would be undertaken in each area.

Implementation Stages

The project would follow the normal project implementation stages of design, detailed work planning, execution, and evaluation.

Implementation Agency

The proposed regional project would be executed by the PATVET office and SPC. A project manager and administrative assistant would be provided under the project to strengthen capacity to carry out the various administrative responsibilities imposed by the project.

Implementation Schedule

The project would need to be designed in detail by experts on organizational and management development through a project preparation mission. This would take about 3 months. Following agreement, it would be followed by a 3-year period of implementation, which could be extended based on performance and outcomes.

Inputs

Inputs include the following:

- Workshops—the project would carry out an average of two regional or subregional workshops per component, with two follow-up visits to selected states by expert services. Emphasis would be placed on communication by ICT to minimize travel costs;
- Expert technical assistance to design and deliver workshops and provide periodic follow-up advice;
- Study tours—a total of 24 participants, e.g., to visit national training agencies in other countries; and
- Project management—one project manager and administrative assistant.

Outputs/Deliverables

These include the following:

- Twelve workshops held and “x” participants attending;
- Nine organizational development plans developed and implemented;
- Labor market and tracer studies conducted and analyzed in, say, six countries, and an operational labor market information system;
- Six management information systems designed and operating;
- “Y” people completing management development programs; and

Table 7.2: Costs and Financing

Item by type	Description	Quantity	Unit cost (\$000)	Total cost (\$000)
Detailed project design	Lump sum		150	150
Training and seminars	Number of seminars	14	40	560
Expert services	4 experts	24 months=48 person months	10 per month	960
Equipment	Lump sum			50
Study tours		36 people	5 per person	180
Project manager ^a	1	36 months	5 per person	180
Administration assistant	1	36 months	3 per person	108
Operating costs		3 years	75 per year	225
Contingencies	10%			250
Total			(rounded)	2,700

a. The project manager would be responsible also for managing project 2.

US = United States, \$ = dollar, % = percent.

Source: ADB/PIFS Expert Team, 2007.

- Quality assurance systems developed on program evaluation, trade-testing systems established or expanded, and accreditation systems strengthened in six countries.

The project requires extensive regional and international expertise to assist in advising on the key areas of organization and management development, including the design of information systems.

Issues

Several issues would need to be addressed in developing this project. The first is complexity. The proposal envisages activities in an array of fields; therefore, priorities would need to be established. In addition, developing organizations and management needs to take into account the context of national systems of public administration. These may limit possibilities of achievement under the project. Strategies to sustain reforms would be essential. Second, programs would need to be tailored to the needs of each island. One size would not “fit all.” Third, frequent changes of managers could vitiate the achievement of management objectives. A strategy to counter this would be to train management teams and groups. To the extent possible, management training should be done in-country as overseas training is expensive and could be wasted if personnel change positions after training.

Project 2: Creating a Capital Development and Innovation Fund

Background

Financing for TVET has been relatively low in relation to overall education spending, particularly in the smaller countries of the region. TVET financing has declined in some countries in the region. In others, budgets for TVET have remained constant while enrollments have increased substantially. The first budget categories reduced are equipment, maintenance, and supplies. Salaries are the last category to be reduced, with the result that personnel costs absorb an ever-increasing share of TVET expenditures. In fact, many countries provide little, if any, capital budget for TVET. External assistance, irregular and fleeting, seems to be the principal source for capital investment in TVET. Insufficient financing has left TVET institutions underequipped and in disrepair. This adversely affects quality. TVET institutions could conceive of innovative ways to develop skills with the proper incentives, including financing. Training funds elsewhere have stimulated quality and relevance in TVET.

Impact and Outcomes/Purpose and Objectives

The proposed capital development and innovation fund has several purposes. The first is

to improve the quality of skills provision in selected countries in the region. The second is to stimulate innovation in TVET from the grassroots, the training institutions themselves. The third is to strengthen the regional TVET organization, PATVET, in its service to members. The immediate objective is to establish an effective, working training fund.

Means/Content

A fund would be created for financing innovation and quality improvement subprojects in the Pacific region. Fund management would publicize the availability of financing, its purposes, and criteria. TVET institutions in the region would apply for help to the fund. The applications would specify the types of innovations and reforms that the financing would enable. Applications would be evaluated in terms of their relevance, feasibility, and efficiency in use of funds. Criteria for use of the funds would need to be developed. These would specify which countries, institutions, and training systems would be eligible to apply for funds; types of subprojects that could be supported; types of expenditures that could be financed; maximum and minimum size of grants; and criteria for approval of proposals, e.g., ensuring that a range of countries, rather than just one or two, participate.

Priority will be given to the smaller, vulnerable island states and land-rich, low-income countries (groups 2 and 1), as defined earlier in this report. Nongovernment training institutions that are not for profit should be eligible to apply. The funds could be used for introducing new training programs in strong demand in the labor market, establishing of partnerships between training institutions and the private sector, expanding clientele to include continuing training for adults, and applying effective training methods (e.g., conversion from time-based to competency-based training). A wide range of innovative practices could be considered for support. The fund would be able to finance expert services, the costs of training programs, equipment and supplies, as well as minor renovations to facilities. Applicants would need to justify the requests fully in terms of relevance to economic and labor market demands, effectiveness in reaching subproject objectives, and internal efficiency and sustainability. The applications would be evaluated first by national TVET associations where they exist, and second, by regional expert teams under the auspices of PATVET. A special PATVET board would make the final decision. Each application would need to include proposals for evaluating results and impact.

Implementation Agency

PATVET, suitably strengthened with full-time staff, would be the executing agency under the aegis of SPC.

Implementation Stages and Schedule

The innovation fund would need to be designed in detail, including criteria and procedures for evaluation of proposals, organizational structures, staffing requirements, monitoring, and accounting and reporting procedures on the use of funds. A study tour to visit other such funds could be considered as part of project design. Implementation is envisaged to cover 3 years.

Outputs/Deliverables

These comprise a fully functioning training fund as a wing of PATVET, including operational and technical manuals, leading to:

- X subprojects financed in TVET in the region;
- Y institutions to benefit from financial support from the fund; and
- Z trainees to benefit from new or expanded courses in priority fields.

Costs and Financing

The size of the fund could be set at any reasonable level. It should be sufficiently large to provide a stimulus to TVET institutions, yet small enough to be manageable. The country reports and synthesis (finance and internal efficiency section, Chapter 4) provide evidence that the capital requirements are substantial and probably exceed \$100 million in the region. A tentative size of \$5 million is suggested, which could be extended based on performance and achievements.

Table 7.3: Costs and Financing (capital development and innovation fund)

Item by type	Description	Quantity	Unit cost (\$000)	Total cost (\$000)
Detailed design			100	100
Local expert services (e.g., subproject appraisal)		36 person-months	5	180
Technical assistance – international		12 person-months	10	120
Seminars/workshops	3		30	90
Fund size			5,000	5,000
Project manager ^a				
Administrative	1	3 years	30 per year	90
Assistant/accountant				
Operating costs			50 per year	150
Contingencies (10% net of fund capital)				80
Total			(rounded)	5,800

^a The project manager of project 1 would also manage project 2.

US = United States, \$ = dollar, % = percent.

Source: ADB/PIFS Expert Team, 2007.

Issues

Open and distance learning (ODL) by ICT is expensive, and means would need to be found to minimize costs. To the maximum extent possible, existing infrastructure should be used, e.g., the satellite centers of USP. Procedures would need to be put in place to ensure proper financial management and accounting. Equally important will be ensuring proper monitoring of subproject implementation and evaluation of results. Another challenge will be to ensure proper technical evaluation of proposals, and objective decision making by the PATVET board. Finally, to prevent a supply orientation in proposal awards, employers would have to play a strong role in proposal evaluation and award, perhaps through the Pacific Islands Private Sector Organization.

Project 3: Expanding Service Delivery through Open and Distance Learning

Background

The Pacific region has more than 22 countries and territories spread over one third of the earth's surface. Within countries, people are dispersed over numerous islands and in thinly populated rural areas. ICT holds the promise to provide training to these people at reasonable cost, if the infrastructure exists, programs can be developed, and program delivery can be supported by local quality assurance on the ground. USP works through ICT to deliver many of its programs to regional and satellite centers. However, the programs are academic and not technical. In advanced regions, TVET is delivered increasingly through ICT using video and the Internet. FIT has pioneered franchise programs whereby secondary schools and vocational institutions can deliver vocational courses at satellite centers and gain credit for FIT program completion. FIT's Learning Center is also building up technical training via distance teaching. FIT has started to offer a diploma in business via distance learning, as well as courses on engineering, mathematics, and applied sciences. It has also begun to provide practical training in three fields—carpentry/joinery, plant maintenance, and plumbing—together with local partners to deliver workshop practice. The problems in developing distance learning are predictable: high development and maintenance costs, language differences, difficulties of communications, lack of design specialists in FIT to convert standard coursework into distance formats, and lack of infrastructure such as bandwidth to permit newer technologies. Reportedly, a strong market exists for such programs beyond the Fiji Islands, in RMI, Solomon Islands, Tonga Tuvalu, and Vanuatu.

Impact and Outcomes/Purpose and Objectives

The purpose of the regional project is to enable people, who would not otherwise have access to skills formation by conventional means, to acquire marketable skills. The specific

objective is to expand the coverage of FIT's franchise programs beyond the Fiji Islands, and to expand the scope and coverage of FIT's distance teaching programs.

Means/Content

These include the following:

- Feasibility study on expanding franchise- and distance-teaching programs in other countries, including (a) an analysis of skills likely to be in demand; (b) a review of international and regional experience in ODL projects, including those of the Commonwealth of Learning; (c) analysis of the market, i.e., demand for franchise and ODL courses in other countries; (d) review of available ICT hardware in target markets; and (e) exploration of collaboration with USP in the delivery of distance teaching in technical and vocational areas;
- Detailed design of a regional proposal on TVET distance teaching, including scaling up of the FIT franchise courses; and
- Implementing the regional project, including some of the following elements:
 - (a) establishing satellite centers with ICT equipment;
 - (b) hiring of program design specialists for distance teaching;
 - (c) hiring of USP network for delivery of programs; and
 - (d) project management.

Implementation Agency

The project could be implemented by the Learning Center at FIT, suitably strengthened, or in another leading institution in the region, such as NUSIOT in Samoa. It would work in close collaboration with PATVET and, to the extent possible, through SPC.

Implementation Stages and Schedule

After the feasibility study and design stages, estimated at 6 months, a program of several phases would be envisaged with (i) mobilization and start-up planning—1 year, (ii) pilot programs—2 years, and (iii) expansion—2 years, followed by (iv) summative evaluation.

Outputs/deliverables

These include:

- Feasibility study;
- Regional project design; and
- Under the project itself:
 - (a) design of a delivery system for TVET by distance means;
 - (b) preparing training content and materials to be delivered in competency-based format for x courses;
 - (c) training of y instructors to offer the training;

Table 7.4: Costs and Financing (Feasibility, Design, and 3 years of Operation)

Item by type	Description	Quantity	Unit cost (\$000)	Total cost (\$000)
Feasibility study			250	200
Technical assistance–local	3 experts	18 months each	4 per month	216
Technical assistance–regional, international	2 experts	12 months each	10 per month	240
ICT equipment	Lump sum			600
Seminars/workshops	3	40		120
Project manager	1	3 years	50 per year	150
Administrative Assistant	1	3 years	30 per year	90
Operating costs		3 years	50 per year	150
Contingencies (10%)				150
Total			(rounded)	1,900

ICT = information and communications technology, US = United States, \$ = dollar, % = percent.
Source: ADB/PIFS Expert Team, 2007.

- (d) design of quality assurance and assessment procedures; and
- (e) training of x trainees in y programs in z countries, and testing of the results.

Issues

The regional review of TVET could find few examples of successful open- and distance-learning programs, i.e., those that were sustained after pilot projects. Exceptions are the USP extension classes and the FIT franchise program. Determining what is feasible in terms of supporting technology and operating costs will be a key aspect of the initial design. Finally, the project would need to be based on market analysis of skills required in order not to slip into a supply orientation.

Project 4: Strengthening TVET Programs in Rural Areas

Background

It has been recognized for more than 25 years that successful employment-oriented skills training programs in rural areas are those closely linked to the local economy and employ an appropriate community-based training methodology. In the early 1980s, governments, NGOs, and international organizations developed such methodologies specifically to promote income generation in rural areas. The TRYSEM program in rural India,³ ILO's Training for Rural Gainful Activities program in Nepal, and the Regional Project on Skill Development for Self-Reliance in East and Southern Africa supported by the Swedish International Development Cooperation Agency all used community-based training approaches to systematically design and implement local employment generation activities in rural areas. More recently, these approaches have been adopted in many industrial

³ Training of Rural Youth for Self Employment (TRYSEM) is a component of the Integrated Rural Development Program in India.

countries to address the training and employment needs of special target groups, such as out-of-school youth, redundant workers, and people with disabilities. The ONESTEP and ASPECT⁴ programs in Canada are community-based training approaches run by NGOs to provide skills training for employment in local communities. Community-based training has also been used as a tool for strengthening vulnerable groups in rural areas. For example, the national Training for Rural Employment and Empowerment Program in Pakistan links skills training to economic empowerment of rural women; a similar approach has been in use by the national training authority in the Philippines, Technical Education and Skills Development Authority (TESDA), since the early 1990s.

These activities have evolved into a generic community-based training methodology with the following principles:

- identification and analysis potential employment and income-generating activities in the local economy;
- determination of appropriate training needs prior to deciding on training content and objectives;
- collection of detailed information on the training target group;
- participation of the local community in the training planning process;
- selection of an appropriate and flexible delivery system; and
- provision of post-training support services—including access to credit and technical support services—to facilitate the successful application of training to income-earning activities.

In adapted form, the community-based training approach, supported by detailed training materials and field manuals, has been successfully applied to employment-oriented skills training in the rural areas of Asia, Africa, Latin America, and the Caribbean.

Linking Community-Based Training to Rural Value Chains

Over the years, the proponents of community-based training have recognized the importance and potential of linking skills development in rural areas to existing product and service value chains as a means of promoting sustainable income generation for the rural poor. Training that taps into and adds value to marketable products and services as they move from primary producer to the ultimate consumer—whether at the local, national, or international level—will lead to higher incomes and increased employment opportunities for the rural poor in both wage and self-employment activities. Here, it could be argued that many steps in the community-based approach—such as the emphasis on identifying and analyzing potential employment opportunities in the local economy

4 Association of Service Providers for Employability and Career Training (ASPECT) in British Columbia, Canada; and Ontario Network of Employment Skills Training Projects (ONESTEP), which is a province-wide umbrella group of not-for-profit agencies that deliver community-based training and employment services.

prior to the provision of training, including basic business skills in training program, and incorporating various post-training support services into the process—mean that community-based training is already market oriented and well placed to adopt a value-chain approach to skills training for the rural poor.

Purpose/Objective

The purpose of the proposed project is to improve the effectiveness of existing government and NGO rural training programs by adapting and introducing elements of those community-based training methodologies that have proven to be effective in promoting rural employment and income generation in other countries and regions. Special attention would be paid to a value-chain approach to community-based training provision as a means of promoting small-scale agribusinesses in rural areas. The project would comprise a regional capacity-building component together with national training and pilot-testing components.

Means/Content

The 2-year project would adapt elements from existing community-based training manuals, materials, and procedures to the specific conditions applying in PICs; translate the materials into local languages; develop a corps of government and NGO trainers able to organize and implement employment-oriented community-based training activities; and pilot test and evaluate the methodology by conducting community-based training activities, linked to value-chain opportunities, in each participating country.

Implementation Strategy

The project would be implemented at both regional and national levels.

Regional Activities. These would consist mainly of workshops and seminars to identify and examine. These activities include: map existing community-based training methodologies; review experiences with the community-based training approach from other countries/regions; introduce trainers and training planners to the value-chain approach; and identify existing constraints at the national level that militate against the effectiveness of CBT programs (e.g., deficiencies in the enabling environment, difficulties in accessing microfinance for self-employment, and weak training support structures); and develop a regional community-based training strategy and generic model for the Pacific.

National Activities. These would focus on adapting and translating generic community-based training materials into local languages; building local capacity by training government and NGOs in the design, organization, and implementation of community-based training projects; identifying potential value-chain opportunities; and pilot testing and evaluating the approach in each country in two to four rural training programs.

Outputs

These include:

- set of country-specific community-based training manuals and procedures;
- corps of government and NGO trainers (12–15 from each country) able to design community-based training projects and organize and deliver training programs based on the community-based training methodology;
- trainers' guide on promoting rural value chains through community-based training;
- 1-year pilot project in each country to test the efficacy of the community-based training approach;
- evaluation of the outcomes of the pilot project;
- draft national community-based training project document; and
- regional community-based training strategy and model suitable for adaptation and use by all PICs.

Project Management

The project would be managed by a regional organization with specific expertise and experience in promoting rural training in the Pacific. This could be either an intergovernmental organization, such as SPC; a regional NGO, such as the Foundation of the Peoples of the South Pacific International; or a regional training institution, such as USP with its network of satellite campuses in each country. The selected organization would be responsible for organizing and implementing regional project activities; overseeing, through a project steering committee, the implementation of national project activities; providing or facilitating additional technical assistance requirements in relation to specific project activities, e.g., technical backstopping of national project activities; and managing project resources and reporting. The project budget would provide the necessary funds for both project management and additional technical assistance requirements.

Risks/Assumptions

It is assumed that the regional capacity-building activities will be attended by the right mix and level of training, employment, and microfinance authorities. The main risk is at the national level where substantial staff resources will be required to adapt materials, train local staff, and implement the pilot projects. Resources for training trainers and additional staff in the design, implementation, and evaluation of pilot projects are envisaged in the budget and will need to be prioritized.

Implementation Schedule

The project is estimated to take 24 months, divided into four phases.

Phase 1 (6 months): Inception, preparation, and implementation of regional

capacity-building activities.

Phase 2 (4 months): Adaptation and translation of materials, training of trainers and other staff, design of national pilot projects.

Phase 3 (12 months): Implementation and evaluation of national pilot projects.

Phase 4 (2 months): Regional workshop to present evaluation results, draft national project documents, and develop generic community-based training strategy and model for the Pacific.

Participating Countries

Phases 1–3: Fiji Islands, PNG, Samoa, Solomon Islands, Tonga, and Vanuatu.

Phase 4: Cook Islands, Fiji Islands, Kiribati, RMI, FSM, Nauru, PNG, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

Budget

Table 7.5: Costs and Financing

Item by type	Description	Quantity	Unit cost (\$000)	Total cost (\$000)
a) Activities				
Training and seminars	Regional workshops, national training of trainers workshops	5	60	300
		10	5	50
Expert services (national)	National consultants	18 person-months	5	90
Equipment/materials	Manuals and modules (translation and production)	120 sets	0.250	30
Pilot projects	Training, credit fund, project staff	6	150	900
Reporting/evaluations	Pilot projects	6	5	30
Contingencies	10%	1		140
Subtotal				1,540
b) Project management				
Project manager	24 months (half-time)	24	5	120
Technical assistance	Regional and international consultants	10 person-months	6.5	65
Operating costs (implementing agency)	Travel, per diem, institutional overheads	Lump sum		75
Subtotal				260
Total				1,800

US = United States, \$ = dollar, % = percent.
Source: ADB/PIFS Expert Team, 2007.

Project 5: Developing Outreach Training in Atoll Economies

Background

The atoll states of the Pacific face unique constraints in their attempts to develop and link nonformal skills development to the needs and opportunities of local economies. With limited land dispersed over small and widely separated islands, providing and staffing of even the most basic training services in these so-called outer islands are both expensive and a major logistical challenge. Poor interisland communications and transport, limited availability of basic utilities, absence of representation from most line ministries at the local level, and reliance on predominantly subsistence economic activities directly affect both the quantitative and qualitative aspects of training provision.

This is reflected in a paucity of vocational training programs and facilities in atoll economies, a shortage of local trainers and instructors, inadequate monitoring and supervision of activities, a high proportion of early school-leavers, and the tendency for parents and students alike to accord low status to all types of vocationally oriented education and training. Academic education, preferably in the relatively well-developed schools of the country's main island or capital city, is seen as the only feasible way of escaping from the poverty of opportunity that characterizes the training environment in most outer islands.

Previous efforts to develop employment-related training programs linked to job opportunities in the local economy of atoll countries have not been particularly successful. In Tuvalu, for example, the preferred approach in the 1980s was to offer training through a network of community training centers, but these relied heavily on donor funding to meet recurrent costs. When the donor project concluded and when legislation extended free and compulsory education in Tuvalu to 10 years, the perceived need for such centers disappeared and they fell into disrepair. The program was discontinued in 1992 and centers were closed.

In Kiribati, a European Development Fund project to establish island learning centers attached to selected outer island secondary schools and supported by the staff and program resources of TTI was abandoned in 2005 when the Government signaled its unwillingness or inability to assume the recurrent costs associated with the project.

In 2000, the RMI launched a 5-year skills development project with funding from ADB, to establish a decentralized training capacity and community outreach program for women and unemployed youth in the country's outer islands. The project sought to design and deliver short-cycle skills development training, linked to identified income-generating opportunities, and supported by a women's training, marketing, and information center. However, neither the information and marketing center nor the decentralized training units succeeded in providing the level and scope of training and support services envis-

aged. This was due mainly to the absence of a comprehensive in place training program in the women's training center and three outreach units.

Purpose/Objectives

To develop cost-effective and sustainable approaches to skills training provision in the outer islands of atoll economies linked directly to local employment and income-generating opportunities.

Main Components

Building on these experiences and on the continued need to provide atoll economies with cost-effective and sustainable outreach training programs for those living on remote islands, the proposed project would contain the following main components:

- Critical review and analysis of previous outreach training programs implemented in Kiribati, RMI, FSM, and Tuvalu with a view to identifying the strengths and weaknesses of previous attempts;
- Establishment of community reference groups to interface with the project implementation unit, provide specific information on vulnerable group training needs, and monitor the impact of training interventions;
- Survey and analysis of potential employment and income-generating opportunities in the outer island economies of the four participating countries;⁵
- Based on the developing short-cycle outreach training programs by technical training institutions in each of the four countries;
- Design and test of alternative delivery systems for providing training programs to outer island clients, in cooperation with NGOs, local authorities, and community-based organizations; and
- Implementation, on a sustainable basis, of a regular program of short-cycle skills development training in selected outer islands of each of the four participating countries.

Means/Content

The project would work with national training institutions in each of the four countries with selected NGOs, local authorities, and community-based organizations to design comprehensive outreach programs comprising both training and non-training elements essential for both the effective delivery of training to outer island target groups and the application of acquired skills to employment and income-generating activities. The project would rely mainly on local institutions, researchers, and practitioners to implement

⁵ An excellent model for such a survey exists from the ADB Skills Training and Vocational Education (STAVE) Project in RMI (see King 2005).

activities and would create local community reference groups to validate local training and employment information, identify training needs of vulnerable groups, and monitor the impact of training interventions. No additional physical facilities would be needed. The project would use existing structures as training venues, i.e., churches, schools, and community centers. Wherever possible, it would also link up with related rural training activities at both national and regional levels, e.g., PRIDE.

Outputs

These would be as follows:

- Analysis completed of lessons from previously learned experience and identifying pitfalls to avoid, and essential conditions for success (this could become a pre-project activity);
- An updated inventory of potential employment and income-generating activities in the outer islands of each country, including an assessment of required training needs;
- Community reference groups established in each participating outer island to validate local information, identify special training needs, and monitor training interventions;
- Training packages—comprising training content, audiovisual materials, and post-training support services—designed specifically for outer island target groups;
- Cost-effective delivery systems using a combination of mobile and fixed facilities and available ICT; and
- National strategies for providing employment-oriented skills training in outer islands in each participating country.

Implementation Schedule

The duration of the project would be 36 months and would be organized in five phases:

Phase 1 (4 months): Inception and training (regional seminar). Review and analysis of previous experiences and identification of pitfalls to avoid in outreach programs; training in the application of project methodology and tools.

Phase 2 (6 months): Visits to selected outer islands to establish local reference groups, and to identify and validate potential income-generating opportunities and target group characteristics and training needs. Training of local reference groups.

Phase 3 (10 months): Development of pilot training packages and delivery system alternatives, e.g., mobile units, franchising arrangements, and distance modes. Implementing NGO outreach programs. Establishing monitoring guidelines and procedures.

Phase 4 (10 months): Implementation and evaluation of the first cycle of outer island training programs and delivery systems. Organizing and implementing a second regional seminar.

Phase 5 (6 months): Development of national outer island training strategies and master plans for each country (national workshops).

The project will start with a comparative presentation of outer island training issues and constraints in each country by local researchers and training practitioners; review of international experiences in providing training services to outer island target groups; and examination of various community-based methodologies for identifying training needs and opportunities. During phase 2, designated national training institutions in each country will then visit selected outer islands to establish and train community-based reference groups, and identify and verify potential income-generating opportunities, training needs, and target group characteristics. This would be done at the community level in close collaboration with local stakeholders and community reference groups, who would validate the information. This validated information would then be used to develop pilot training packages and delivery system alternatives (phase 3), and implement and evaluate pilot training packages and delivery system alternatives (phase 4).

Results from each country experience would be presented and analyzed at the project's second regional seminar. Information and experiences from the four project countries would provide the basis for developing national outer island training plans and strategies (phase 5), covering outer island training objectives, priority target groups, implementation partners, and resources required for developing outreach programs over the next 5 years, i.e., a draft outer island master plan.

Project Management

The project would be executed by a regional organization, and implemented by a regional NGO with specific expertise and experience in promoting outreach training in the Pacific. The former could be an intergovernmental organization, such as SPC, while the latter should be an NGO with both a national structure and grassroots implementation experience in each of the four countries, e.g., Foundation of the Peoples of the South Pacific International. The selected organizations would be responsible for organizing and implementing regional project activities; overseeing, through a project steering committee, the implementation of national project activities; providing or facilitating additional technical assistance requirements in relation to specific project activities, e.g., technical backstopping of national project activities; management of project resources; and reporting. The project budget would provide 36 months of staff time (half time) for project management and additional resources for technical assistance requirements.

Participating Countries

Tuvalu, Kiribati, RMI, FSM

Table 7.6: Costs and Financing

Country	National training institution	Government focal point
Kiribati	Tarawa Technical Institute	Ministry of Education
RMI	National Training Council	Ministry of Resources and Development
FSM	Trades, training, and testing centers in Pohnpei, Yap, Chuuk, and Kosrae	State Departments of Education
Tuvalu	(To be selected in consultation with government focal point)	Department of Women (Ministry of Home Affairs)

FSM = Federated States of Micronesia, RMI = Republic of the Marshall Islands.
Source: ADB/PIFS Expert Team, 2007.

Risks and Assumptions

A major assumption is that the offering of new courses and the associated infrastructure will be maintained under the respective recurrent government budgets. Sustainability would be dependent on the provision of an annual government allocation for outer island training, which would be used to cover the costs of the respective providers, i.e., national training institutions and/or NGO providers.

Budget

Table 7.7: Costs and Financing

Item by type	Description	Quantity	Unit cost (\$000)	Total cost (\$000)
Activities				
Training and seminars	Regional workshops, training of trainer workshops, project staff training	2	50	100
		4	5	20
		Lump sum		5
Expert services (national)	National consultants	18 person-months	5	90
Equipment/materials	Mobile equipment, audiovisual aids, training modules	4	100	400
Fieldwork	Survey research, module development	4	40	160
Pilot projects	Pilot training programs including credit fund (\$10,000 per country)	4	100	400
Reporting/evaluations	Pilot projects	4	5	20
Contingencies	10%	1		119
Subtotal				1,314
Project management				
Project manager	Half-time	36 months	5	180
Technical assistance	Regional or international consultants	10 months	7.5	75
Operating costs (implementing agency)	Travel, per diem, institutional overheads	Lump sum		75
Subtotal				330
Total				1,640
				(rounded)
				1,700

US = United States, \$ = dollar, % = percent.

Source: ADB/PIFS Expert Team, 2007.

APPENDIXES

(COUNTRY SPECIFIC INFORMATION)

Appendix 1. Socioeconomic Background: Country Groups^{1,2}

The following table shows basic indicators according to country group.

Indicator	Group 1: Large, low-income states	Group 2: Vulnerable island states	Group 3: “Advanced” island states
Indicator/countries in group	3–PNG, Solomon Islands, and Vanuatu	5–FSM, Kiribati, Nauru, RMI, and Tuvalu	5–Cook Islands, Fiji Islands, Palau, Samoa, and Tonga
Total population (million)	6.9	0.28	1.1
Median population/sq. km.	17	309	57
Projected population growth 2004–2014 (%)	28	20	4
Median urban population as share of total (%)	16.5	55.2	51.7
Average infant mortality per 1,000 births	52	26	17
Average life expectancy (years)	62	65	71
Net primary enrollment ratio	88	96	91
Median net secondary enrollment ratio (%)	26	70	67
Youth literacy rate (%)	31	83	96
Per capita GDP (\$)	487	1,534	3,811
Human development index	0.592	0.578	0.803
Median formal sector Employment as share of total employment (%)	9.3	29.7	64.0
Median public sector Employment as share of formal sector employment (%)	30	52	22
GDP = gross domestic product, FSM = Federated States of Micronesia, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, US = United States, \$ = dollar, % = percent. Source: Developed from Voigt-Graf, 2007b.			

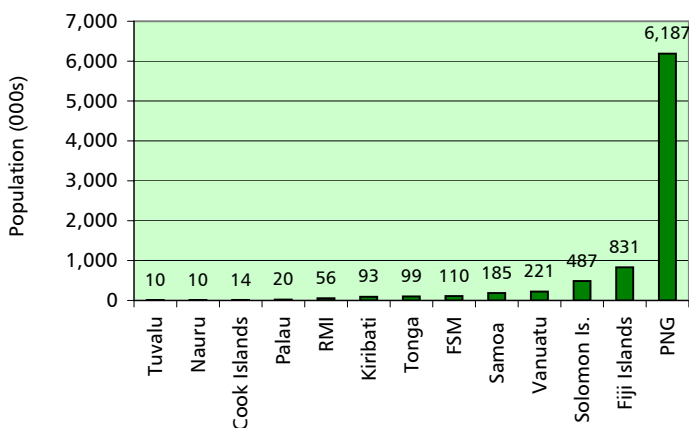
Several comparisons of country groups are made below, including population, social indicators, and economic indexes.

Population in the Region

The population range of the 13 Pacific island countries (PICs) is substantial, as seen in Figure A1.1. Four countries have fewer than 50,000 people; four have between 90,000 and 200,000; three countries have 200,000 to 800,000; and one country—PNG—tips the regional scale at 6.2 million. The three countries in group 1 account for 83% of the population in the study.

¹ This Appendix is derived from the literature review of Voigt-Graf (2007b), referenced in the bibliography.

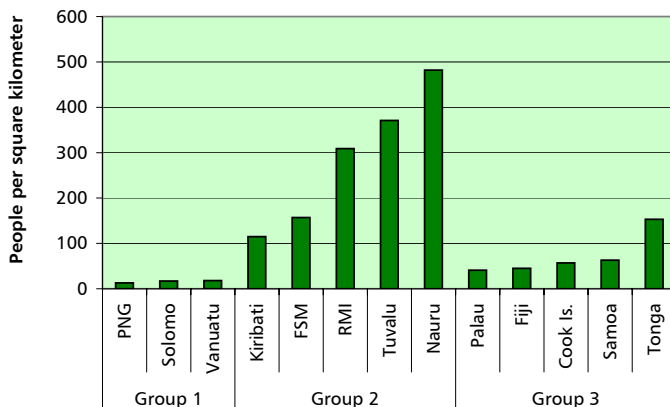
² The literature review faced exceptional difficulties in locating reliable statistics for the Pacific island countries. Many indicators are only rough estimates, not based on consistent databases. Individual statistics are not the important point here, but patterns and trends.

Figure A1.1: Population of 13 PICs, estimated 2006

FSM = Federated States of Micronesia, PICs = Pacific island countries, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands

Source: Table 3 from Secretariat of the Pacific Community in Voigt-Graf, 2007b.

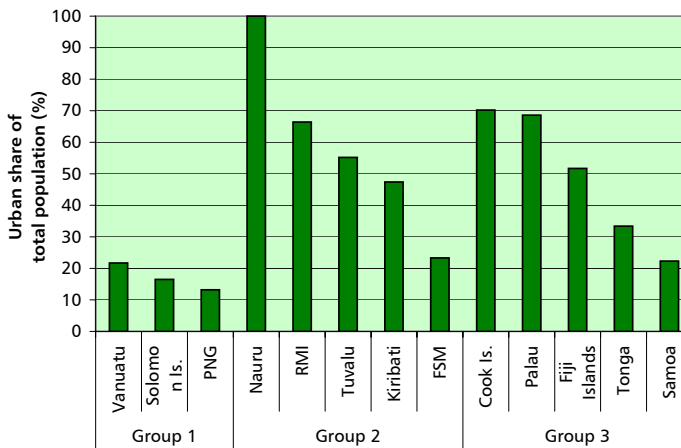
Population density varies inversely with total population (Figure A1.2). Densities are highest in the small, vulnerable island states and lowest in the land-rich, low-income countries. Thus, the largest country also has a large land area of 463,000 square kilometers (km^2), meaning an average of only 13 people per square kilometer. At the other extreme, Nauru concentrates its small population in just 21 km^2 of land area, and Tuvalu in 26 km^2 .

Figure A1.2: Population Density

FSM = Federated States of Micronesia, Is. = Islands, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, km^2 = square kilometer.

Source: Voigt-Graf, 2007b.

Figure A1.3: Urban Population

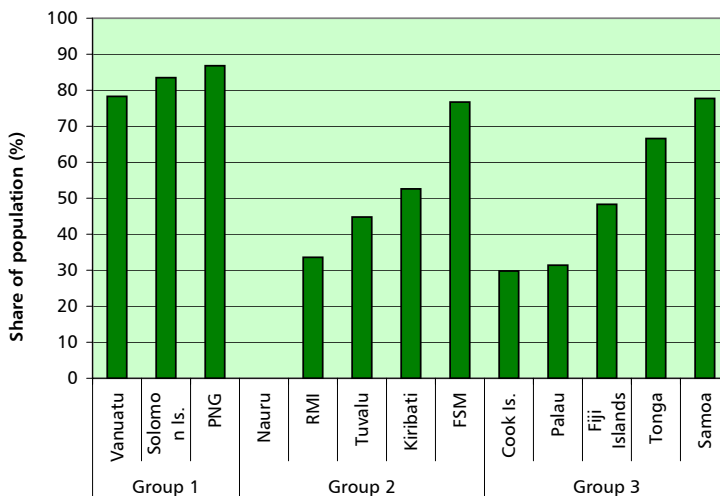


FSM = Federated States of Micronesia, Is. = Islands, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, % = percent.

Source: Voigt-Graf, 2007b.

The population in the region is living mainly in rural areas, as seen in Figure A1.4.

Figure A1.4: Percentage of Population in Rural Areas

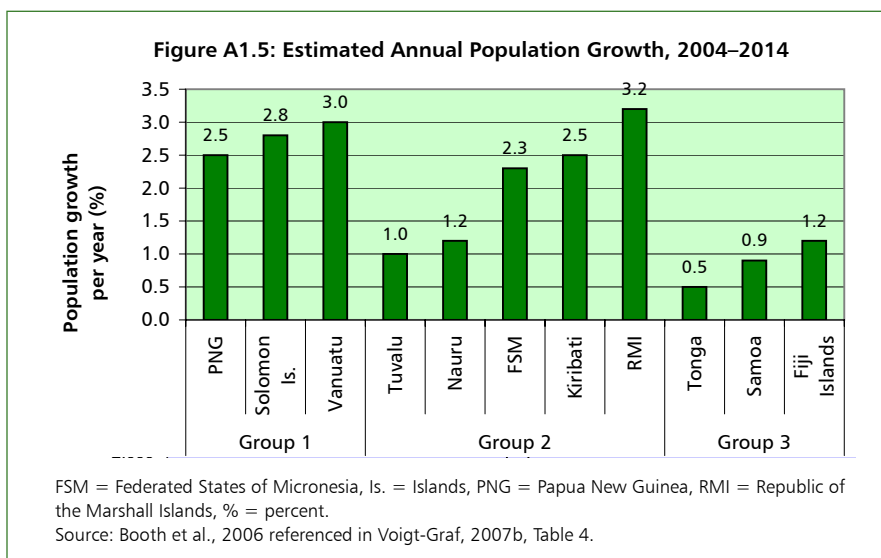


FSM = Federated States of Micronesia, Is. = Islands, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, % = percent.

Source: Voigt-Graf, 2007b.

Population growth is expected to remain high, except in countries with high emigration (the Cook Islands, Samoa, Tonga, and to some extent, Fiji Islands). An average of 2.3% population growth is projected for the 13 PICs.

High rates of projected population growth characterize the land-rich, low-income group and the fragile island states compared with the “advanced” island states, as seen in Figure A1.5. The Cook Islands, not in the figure, has a projected population decline of 0.9% a year over the period. The overall average would be 2.3% population growth projected for the 13 PICs.



By 2014, growth at these rates would add 65,000 people in Vanuatu; 94,000 in Fiji Islands; 128,000 in Solomon Islands; and 1.4 million in PNG, as seen in Table A1.2. Rapid population growth in several countries is a concern because of relatively limited employment opportunities.

Projections of formal sector employment growth to 2015 indicate that it cannot absorb the rapidly growing working-age population. Consequently, the working-age population not formally employed is projected to increase in all countries, except the Cook Islands. In the Fiji Islands, Samoa, and Tonga the increase is expected to be moderate, but will be much more substantial in PNG, Solomon Islands, and Vanuatu.

Limited opportunities for formal sector employment, inadequate urban infrastructure and housing, and insufficient health and education opportunities pose major challenges to governments in the region.

Table A1.2: Population Projections, 2004–2014

Country	Population (000)		Change	
	2004	2014	Number (000)	(%)
Cook Islands	14.0	12.8	(1.2)	(9)
Fiji Islands	836.0	930.2	94.2	11
Kiribati	93.1	116.4	23.3	25
RMI	55.4	73.0	17.6	32
FSM	112.7	138.3	25.6	23
Nauru	10.1	11.3	1.2	12
PNG	5,695.3	7,138.4	1,443.1	25
Samoa	182.7	198.3	15.6	9
Solomon Islands	460.1	588.8	128.7	28
Tonga	98.3	103	4.7	5
Tuvalu	9.6	10.6	1.0	10
Vanuatu	215.8	281.2	65.4	30
Total	7,783.1	9,602.3	1,819.2	23

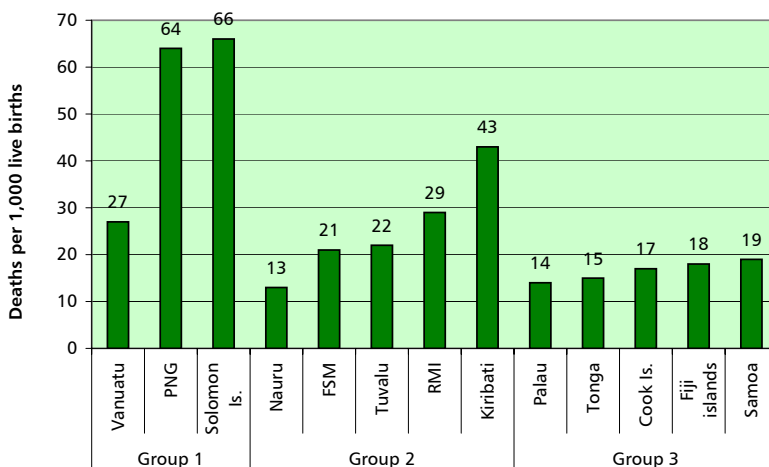
Note: Palau is not included in this analysis.

FSM = Federated States of Micronesia, Is. = Islands, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, % = percent, () = negative value.

Source: Booth et al., 2006 referenced in Voigt-Graf, 2007b, Table 4.

Social Indicators

Differences in country groups are evident in health and education indicators (Figures A1.6 and A1.7).

Figure A1.6: Infant Mortality

FSM = Federated States of Micronesia, Is. = Islands, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands.

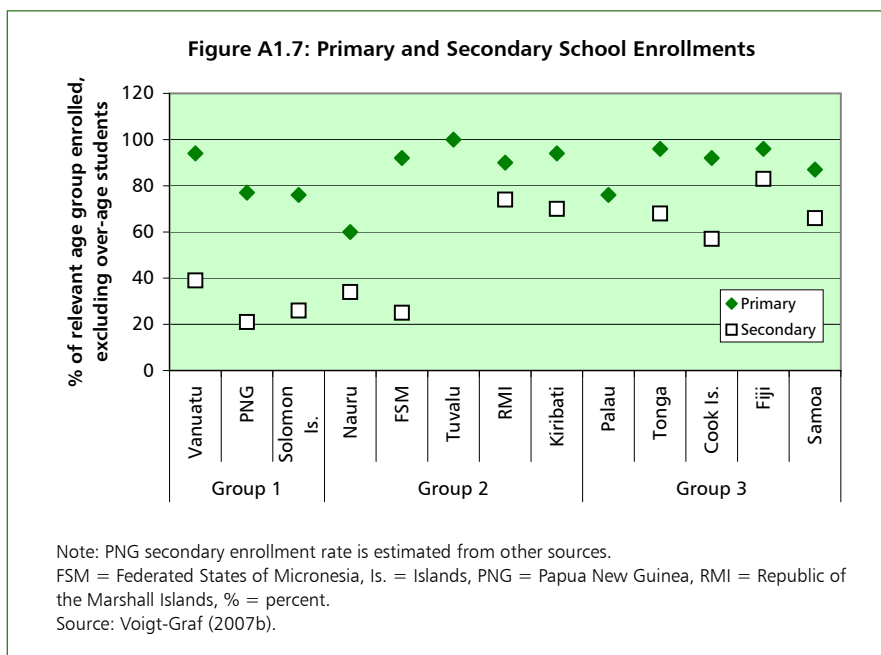
Source: Voigt-Graf, 2007b.

Net primary enrollment ratios are fairly even in the region, with almost 80% in Palau, PNG, and Solomon Islands; and virtually all eligible children in the FSM, Tonga, and Tuvalu. Net secondary enrollment ratios, however, diverge significantly, ranging from 20–30% of the age group in the FSM, Nauru, PNG, and Solomon Islands to 60–80% in about half the countries.

Dispersion is significant in terms of gender equity. Figure A1.8 shows the primary and secondary gender parity ratios (comparison of net enrollment ratios of girls to that of boys, by level). Five countries have more girls than boys at the secondary level.

Economic Indicators

PICs, in general, are at a disadvantage to other developing countries in terms of attracting foreign direct investment. Even when they have good policies, small states are considered significantly riskier because of factors such as diseconomies of scale and location, eroding preferential market access conditions, and relatively high costs of doing business. The cost of providing public services must be spread among a relatively small population, leading to higher per unit costs. Despite these inherent weaknesses, PICs continue to have, in a developing world context, high levels of per capita income and mostly fall into the lower middle-income category. These are partially derived from rent incomes (i.e., migrant remittances and development assistance).



PNG, Solomon Islands, and Vanuatu all have per capita incomes of less than \$800 (Figure A1.9). At the other extreme, the Cook Islands has an average of almost \$7,500 per person. The midpoint (median) for the region is about \$1,650 per person.

The United Nations Development Programme (UNDP) Human Development Index (HDI) is a composite measurement of health indexes (e.g., life expectancy at birth), education (adult literacy rate and combined enrollments rates), and per capita GDP at purchasing power parity. The ranks among the countries in the Pacific are shown in Figure A1.10.

Labor Markets

In most countries of the region, reliable employment and labor market data are lacking. Partly, the structural characteristics of the economies are such that they hinder the collation of meaningful data. In addition, the nonexistence of a centralized labor market database must be regarded as a key challenge to address labor market issues. Conventional labor market statistics paint a misleading picture of productive work in PICs as they wrongly suggest that a large number of people in some countries are not economically active. They also underrepresent the productivity of the semi-subsistence sector. The labor force in PICs cannot easily be described using conventional labor force statistics. Only four of the 13 study countries (the RMI, Samoa, Tonga, and Vanuatu)

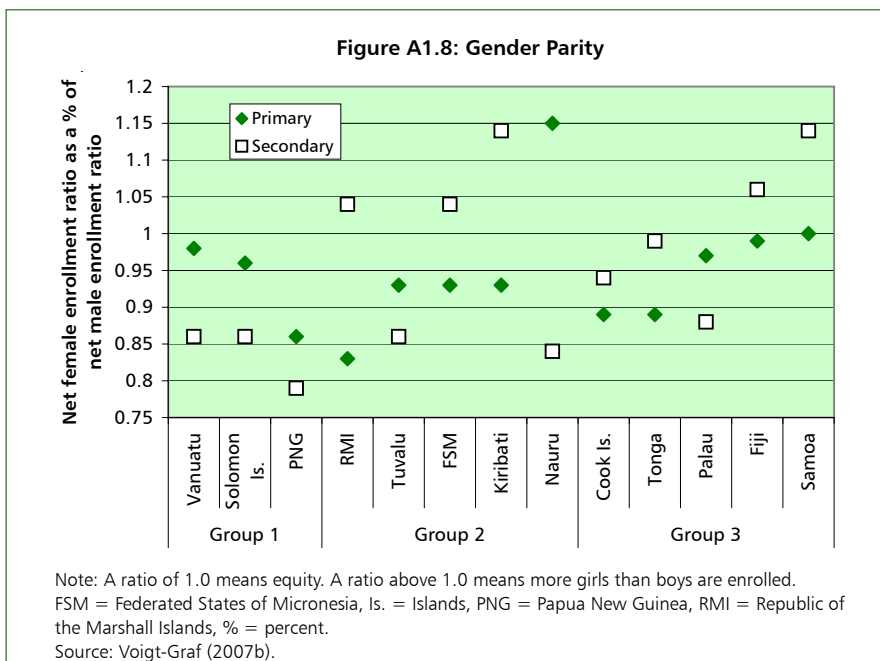
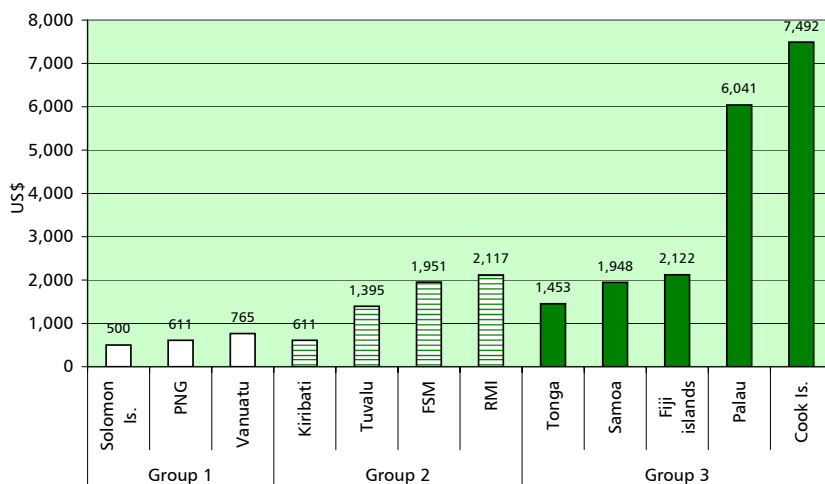
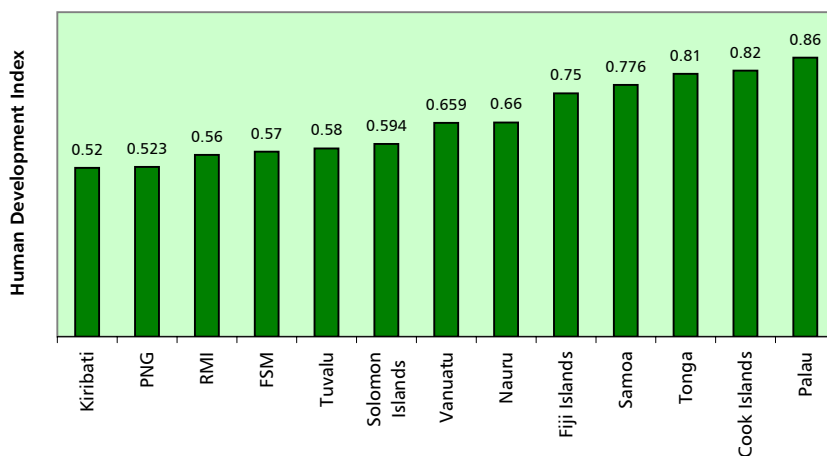


Figure A1.9: GDP per Capita by Country Group

Note: Solomon Islands is estimated from other sources.

FSM = Federated States of Micronesia, GDP = gross domestic product, Is. = Islands, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, US = United States, \$ = dollar.

Source: Secretariat of the Pacific Community as presented in Voigt-Graf, 2007b, p. 29.

Figure A1.10: UNDP Human Development Index, Various Years, 1998–2003

FSM = Federated States of Micronesia, Is. = Islands, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands.

Source: Voigt-Graf, 2007b.

have conducted labor force surveys that include limited information on skill needs and/or training levels of the workforce.

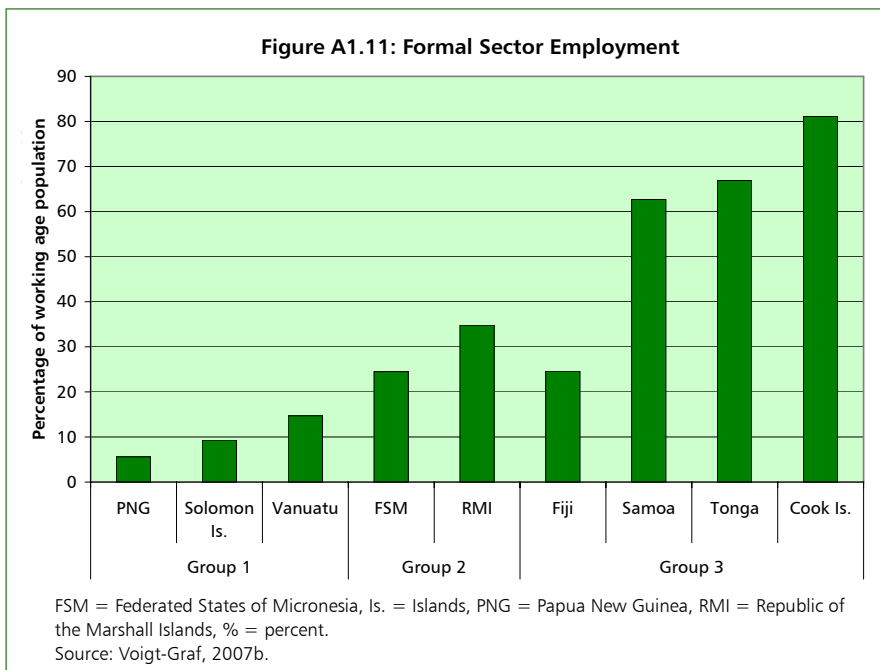
Formal and Informal sector Employment. The informal economy, defined as that outside wages and taxes, is large and growing in the Pacific. Figure A1.11 indicates the difference in formal sector employment by country group.

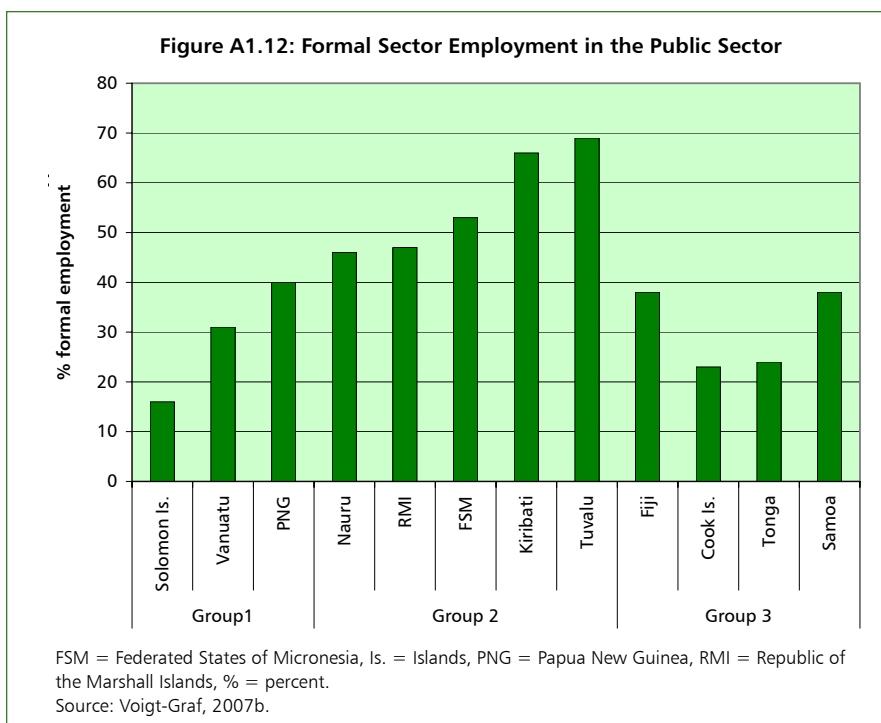
In PNG, Solomon Islands, and Vanuatu, only 6%, 9%, and 15%, respectively of the working-age population is in formal employment. The rest are in the informal sector.

The public sector also tends to dominate formal sector employment, particularly in the fragile island states, as seen in Figure A1.12.

In the absence of a vibrant private sector, the public sector has assumed a large role in economic activities, providing the bulk of cash employment opportunities in most PICs. The public sector in many PICs accounts for a large share of total wage employment. This has adverse effects on private sector employment and, by implication, prospects for growth in the medium to long term.

In many PICs, the public sector generally has better access to labor by virtue of its incomes being higher—up to six times—and by virtue of being able to plan human resources needs through public service commissions, the allocation of scholarships, and the bonding of students. The large public sector crowds out the private sector because it does jobs that could be undertaken by private business. The public sector also establishes





the scale for pay rates that adversely affects the private sector. Legislated minimum wages are high, compared with other Asian countries, and public wages tend to be higher than private sector wages. This distorts PIC labor markets, attracting the most highly skilled to government jobs. Another important constraint on the private sector is access to land and the inability to use land as collateral for loans.

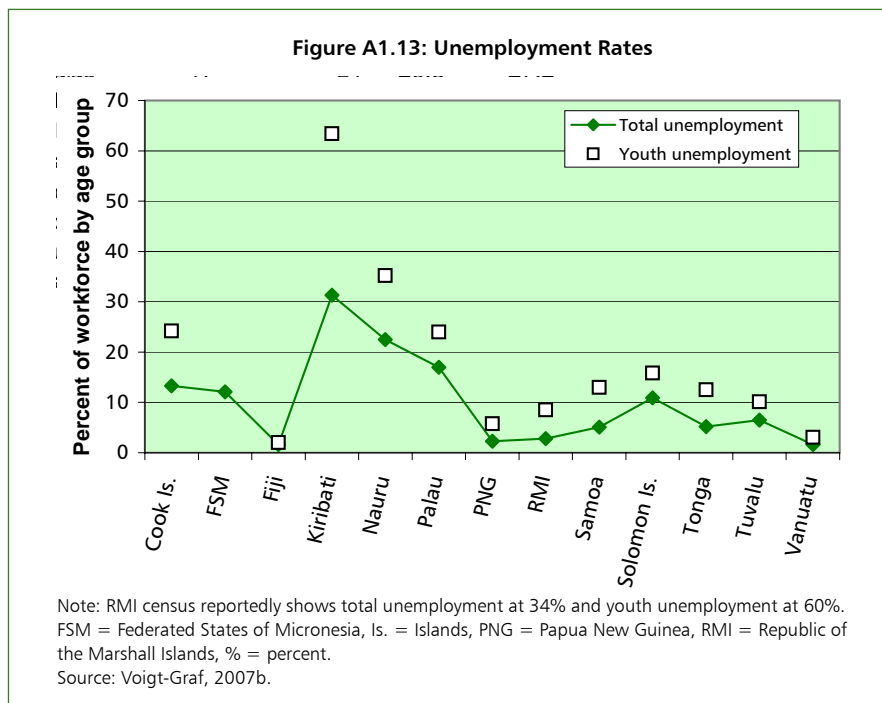
The private sector in PICs is generally characterized by widespread subsistence agriculture and fishing, cultivation and export of agricultural products, licensing, servicing, and supplying foreign fishing fleets within territorial waters; widespread but mainly small tourist sectors; small industries manufacturing products that are costly to transport over long distances; and substantial mining activity, particularly in PNG and Solomon Islands.

Private sector firms are typically small in PICs, primarily because small domestic markets limit entrepreneurial opportunities. Strengthening and developing the private sector is a major priority in the region at present, including under the Pacific Plan.

An overview of national economies and information at country level on major industries and sectors with potential to develop as well as the economic characteristics of the 13 study countries point to growth potential, particularly in the agriculture sector (especially in group 1 countries and the Fiji Islands), the fisheries sector (all countries), and the tourism industry (all countries).

Unemployment. Unemployment rates are notoriously difficult to determine in countries dominated by the subsistence sector, but there seems to be considerable variation in the PICs. Due to the ease of entry to and exit from subsistence production, conventional unemployment in the labor market is essentially nonexistent, as effectively all citizens can participate in subsistence production in the absence of opportunities for wage employment. Unemployment is particularly prevalent in urban areas and among youth. The “youth bulge” is one most profound challenge facing politicians, planners, and policy makers. Unemployment rates among school-leavers are invariably higher than for other population groups. Youth unemployment rates as reported in official statistics are not comparable between countries because of differences in the definition of the labor force. Therefore, what has to be compared is within countries: the unemployment rate of youth (16–24-year-olds) with that for all people of working age (16–64), and this is about twice as high (Figure A1.13).

Expatriates. Skills shortages throughout the region have led to reliance on considerable numbers of expatriate workers. In all PICs and across most industries, expatriates fill many specialist and management positions. The important role played by them in key areas reflects the failure of training systems to provide appropriate qualifications in sufficient numbers. At the same time, most PICs have put in place restrictions and



cumbersome procedures for obtaining or renewing work permits for noncitizens with the required skills.

Migration. Numerous migration flows across the Pacific region link PICs with each other, with the Pacific Rim as destination for Pacific migrants, and with Asian countries as sources of migrants into the Pacific. The largest migration flows in the Pacific are those from the islands to the metropolitan countries of the Pacific Rim. Several PICs maintain close relationships with developed Pacific Rim countries, which often result in special residency and work rights. The US grants free access to citizens of the three Compact States in the north Pacific—the RMI, FSM, and Palau. Cook Islanders are New Zealand citizens with full residential and work rights in New Zealand. Cook Islands has experienced substantial population losses; 83% of Cook Islanders now live in New Zealand, Australia, and elsewhere. Similarly, more Samoans live in New Zealand, Australia, and the US than at home. Hence, the region has extraordinarily high rates of emigration, particularly from Polynesian countries.

The main overseas employment opportunity for Tuvaluans and I-Kiribati is as seafarers on German merchant ships and Asian fishing boats. In contrast to Polynesians, Micronesians—and to an extent Fijians—there have been few opportunities for Melanesians to work overseas.

The lack of migration outlets has had adverse effects in Melanesia where population growth rates remain among the highest in the world. The Secretariat of the Pacific Community estimates population growth rates for 2006–2010 at 2.1% for PNG, 2.4% for Solomon Islands, and 2.6% for Vanuatu. Moreover, the mass of youth cannot emigrate and cannot find employment.

In recent years, migration opportunities in developed countries have tended to decline, and are increasingly targeted toward skilled migrants. Thus, migration flows from the Pacific are increasingly likely to be of skilled migrants from various sectors. In many PICs, the quality of services has been reduced due to emigration of skilled workers. PICs are also characterized by a shortage of competent tradespeople. The impact of migration is particularly damaging because it is often unpredictable and happens with the employer having no notice that workers are planning to leave.

PIC governments have not sought to intervene in emigration and have not tried to curb the loss of skilled workers. They are unlikely to do so in the future, given the financial benefits from remittances. Bonding of students who study on government scholarships has been the main policy directed at retaining qualified people temporarily.

There is a chronic excess demand for skilled manual, supervisory, technical, and managerial labor in the private sector. This is caused by migration and by the low quality of school and technical and vocational education and training (TVET) systems.

Informal Sector. Overall, there has been neglect of the informal sector in the

region (Connell and Lea 2002 cited in Voigt-Graf 2007b). Partly, this derives from a comparatively weak urban private sector that does not provide sufficient opportunities for the growth of small entrepreneurs to link with it. Notwithstanding opportunities in subsistence agriculture and informal sector activities, an issue of the choices people make between rural and urban living exists. Urban living is perceived to offer better opportunities, particularly in education and access to government services, but this can mean unemployment in an environment where subsistence living is impossible. For many people, especially urban dwellers, subsistence living and informal sector activity is not a real choice because there will be no permanent return to the rural sector for them.

Constraints to informal sector activity include the following:

- general business environment, including poor infrastructure, electricity, and water supply;
- poor access to land and other natural resources due to the complexity of land tenure and the insecurity of premises;
- lack of access to adequate human resources and a lack of people with the types of skills needed to sustain small enterprises;
- general shortage of entrepreneurship, reflected in conservatism and lack of innovative ideas;
- restricted spread of new processes and technology;
- lack of access to finance;
- lack of access to markets, which is one biggest hurdle to small rural business operators; and
- legal constraints such as licensing, registration, regulation of premises, labor laws and taxes.

Appendix 2. Methodology of Employer and Employee Surveys in Pacific Island Countries

Employers and employees in the formal nongovernment sector were surveyed using standardized questionnaires. The questionnaires for employers and employees were pre-tested in the Fiji Islands. Three employers and 24 employees participated in the pretest. The pretest confirmed that the questionnaires were well designed and there were little differences in interpretation by the respondents. The terminology used was clear and unambiguous. Based on this pretest, the questionnaires were finalized.

The ADB regional skills development project manager at the Pacific Islands Forum Secretariat (PIFS) centrally administered the surveys. In each 13-study country, the surveys were locally administered either through the study's domestic consultants or through an institution with links to private sector employers, such as chambers of commerce (table A2.1). The number of employer survey forms sent to each country was determined in consultation with the individual or institution administering the surveys. The administering individual or institution mailed out the questionnaires to a list of employers that was obtained from industry organizations or chambers of commerce. In the smaller countries, some questionnaires were delivered by hand.

Each employer was provided a survey form to be completed by the employer as well as up to 20 employee survey forms to be distributed among staff in the business. Twenty survey forms were distributed in organizations with 20 or more staff and a lower number was distributed in smaller businesses. Survey questionnaires were collected by, or returned to, the person or institution that had sent out the forms within each study country and were then returned in bulk to PIFS for data entry and analysis.

The main purpose of the employer survey was to identify technical and vocational skills gaps, training practices and needs, criteria for hiring new workers, and employers' opinions about the technical and vocational training system in their country. Employers were given a letter explaining the purpose of the survey as well as instructing them on how to fill in and return the questionnaire. In addition, employers were asked to distribute questionnaires to up to 20 employees in their business targeting technically and vocationally trained staff, and excluding low-skilled workers as well as highly skilled professionals. The employer survey was filled in by individuals holding positions, including chief executive officer, company director, executive director, administration manager, general manager, accountant, human resource manager, human resource officer, company owner, and various department managers. While employers identified the name of their organization, they were assured of confidentiality; therefore, the names of participating organizations will not be revealed in this report.

The main purpose of the employee survey was to analyze whether the respondents' present occupations matched their education and training, what kind of techni-

cal or vocational training they have received, and whether their employer provided any on-the-job training. Employees were given a letter explaining the purpose of the survey as well as instructing them on how to fill in and return the questionnaire. The employee survey was anonymous and respondents did not reveal their names.

Survey forms were sent out in October 2006, with the exception of Tuvalu, where the survey forms were sent out in September, and PNG, where two batches of survey forms were sent out (in October and December). Survey responses were received from all countries, except Vanuatu. The numbers of employer and employee questionnaires sent out and returned by country are shown in table A2.1. Employer questionnaires (1,855) were sent out and 277 valid responses were received (15% response rate). Nine invalid responses were received because of employers who had been explicitly excluded from the survey returning the forms. Employee questionnaires (14,965) were sent out and 2,164 responses were received, of which 2,156 were valid (14% response rate). Invalid responses were received from 47 government employees.

While a response rate of about 15% cannot be seen as high, response rates varied considerably between countries. Notably, a response rate of 82% was achieved among employers in the RMI and more employee questionnaires were returned than had been sent out. This was because the number of employees in each organization was unknown and too few questionnaires were included. A response rate of 72% of employers and 48% of employees was achieved in the Cook Islands, while the respective figures for Tuvalu were 70% and 63%. No questionnaires were returned from Vanuatu, and only 4% of employers and no employees took part in the survey in Palau.

In general, low response rates are a danger signal due to the possibility of response bias; cases with certain characteristics might be more likely to participate or not participate in a survey. This is a problem only when a random sample of the population is drawn that loses its random nature due to response bias, making it impossible to generalize the findings to the population. In the case of the employer and employee surveys discussed here, the population was unknown. It has never been the objective to draw a sample at random, which would permit a generalization of the survey results to the population. In the case of the employer survey, the population in each country consists of all formal nongovernment sector employers. Since no verifiable list of all formal nongovernment sector employers exists, the population is unknown. It was not possible to draw a sample at random.

Instead, the aim was to reach as many employers who were members of the respective employers' associations. This, in itself, is likely to present a bias such that larger employers can be assumed to be more likely to be members of such organizations. In the case of the employee survey, all employees of formal nongovernment sector organizations make up the population. This population is unknown. Our survey was

aimed at employees of those organizations that participated in the employer survey. It is not a sample drawn at random because the population is unknown and a maximum of 20 employees in each organization were given questionnaires by their employers. In the case of some organizations, employees participated in the survey but the employer form was not returned.

In short, the aim of the sampling method was to maximize the number of returned employer and employee questionnaires to determine associations between different variables. A region-wide sample of 277 employers and 2,156 employees allows for this, though greater caution has to be exercised when looking at the country level where sample sizes, especially for employers, are very small in some cases.

Upon return, the questionnaire data were entered into (SPSS) files by two research assistants based at PIFS. SPSS was the main software used to calculate descriptive statistics as well as associations in the form of cross tabs.

Table A2.1: Overview of Survey

Country	Administering agency	No. of employer surveys sent	No. of employer surveys returned	No. of valid employer surveys	Employer response rate (%)	No. of staff employed in surveyed organizations	No. of employee surveys sent	No. of employee surveys returned	No. of valid employee surveys	Employee response rate (%)	Employees sampled of all employees in surveyed organizations (%)
Cook Islands	Chamber of commerce	50	36	36	72	1,179	250	122	122	49	10
Fiji Islands	PIFS	260	45	44	17	11,693	2,600	679	679	26	6
Kiribati	Domestic consultant	50	23	23	46	1,243	250	72	66	26	5
RMI	Domestic consultant	50	42	41	82	1,815	250	373	365	146	20
FSM	Domestic consultant	150	17	16	11	566	750	115	114	15	20
Nauru	Ministry of Education	25	4	4	16	764	155	80	80	52	10
Palau	Chamber of commerce	50	2	2	4	28	0	0	—	0	0
PNG	Domestic consultant, Business Council of PNG	850	58	57	7	15,134	8,500	486	486	6	3
Samoa	Domestic consultant	50	26	21	42	1,482	250	187	101	40	7
Solomon Islands	Chamber of commerce	100	9	9	9	607	900	55	55	6	9
Tonga	Chamber of commerce	100	10	10	10	316	500	50	50	10	16
Tuvalu	Chamber of commerce	20	14	14	70	560	60	38	38	63	7
Vanuatu	Chamber of commerce	100	0	0	0	—	500	0	0	0	0
Total		1,855	286	277	15	35,387	14,965	2,257	2,156	14	6

Note: In the RMI, employee questionnaires were printed out in addition to the ones sent from the Fiji Islands, resulting in a response rate of 147%.
 FSM = Federated States of Micronesia, PIFS = Pacific Islands Forum Secretariat, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, % = percent, — = data unavailable.

Source: ADB/PIFS Expert Team, 2007.

Appendix 3. Labor Markets and Skills Shortages by Country Group

The Need for Adequate Regional Labor Market Information Systems

In most countries involved in this study, there is a lack of current, comparable, and useful¹ labor market data. In many countries (e.g., PNG, Fiji Islands, FSM, and Tuvalu), the only significant labor market information comes from the census and ongoing data collection by the central statistics bureau. Reports do not provide data about specific occupations, future demand for the occupations, and skill issues. TVET systems consequently have difficulty formulating goals in addressing changing needs. Lacking is a central authority, such as a labor department, that focuses on the collection of data that relate to skills formation and the support of livelihoods. Samoa is one exception where an organization, the Apprenticeship Administration and Labor Market Information Division, undertakes surveys. Labor force surveys have also been conducted in the RMI, Tonga, and Vanuatu.

Broad census data are also not always comparable nor are they recent. Differences occur particularly in specifying the economically active (Voigt-Graf 2007b). Part of the difficulty arises because of the comparatively small percentage of people and the dominance of the public sector in wage employment. Table A3.1 shows the overall employment and the unemployed in each country and illustrates the difficulty in comparison because of the different definitions of what constitutes employment. PNG has 45% employed because all people working in agriculture are considered employed; whereas, Solomons Islands has only 14% employed because employment means being paid for services. Formal employment in the Cook Islands is the same as employment, yet a substantial percentage are employed in agriculture. Data in many cases may not accurately classify a labor market situation to a level where the data are useful for planning purposes. Data are also often a number of years old, as is the case of the last census and labor market surveys in Vanuatu, undertaken in 2000. Data for comparability are also not always available for every country.

Limited Opportunities for Employment

Prior to engagement with industrial countries, regional countries were primarily involved with subsistence living from agriculture and, in many cases, fishing. Engagement with industrial countries introduced new industries (for example, phosphate mining in Kiribati and Nauru, and gold mining in PNG) and a cash economy. Agricultural crops quickly became an important part of the cash economy (for example, coconuts, coffee,

¹ Data need to be adequate for decision making by a range of stakeholders. In the case of the TVET sector, the data should be detailed to the occupational level to guide in planning.

cacao, and sugarcane). Manufacturing sectors emerged to serve other industries, such as phosphate mining and processing of agricultural crops. The Fiji Islands established a garment industry for export, based on preferential trade agreements. Tourism also gradually emerged to become an important industry, mainly for the Cook Islands, Fiji Islands, Samoa, Tonga, and Vanuatu. However, growth in employment opportunities over time has not kept pace with high birth rates. Thus, over many decades, countries have moved from a position where a subsistence existence was possible to one where it no longer is, due to a lack of access to land (particularly in highly urbanized environments) and limited opportunities in the formal and informal sectors. Increasingly, faced with other possibilities, youth are expressing disinterest in a subsistence existence.

Table A3.1 provides an overview of employment and unemployment in the Pacific regional countries. Using PNG and Vanuatu as benchmarks because they can offer employment opportunities to most people because of their access to substantial land areas, the data suggest significant unemployment problems in the Cook Islands, RMI, FSM, Solomon Islands, and Tonga.

Additional data (Voigt-Graf 2007b) about unemployment rates for those in the 15–64-year age group reveal that the RMI, FSM, and Nauru have very high rates of unemployment. Unemployment rates for youth (16–24-year-old age group) in the Cook Islands, RMI, FSM, Nauru, and Solomon Islands each exceed 19% compared to around 4% in Vanuatu (Voigt-Graf 2007b). A report on Solomon Islands (World Bank 2007)

Table A3.1: A Comparison of Employment in Pacific Regional Countries

Country	Year	Total employment	Total population	Share of population employed (%)	Total unemployed	Unemployed (%)
Cook Islands	2001	5,928	18,027	33	892	5
Fiji Islands	1996	219,314	775,077	28	17,265	2
Kiribati	2000	39,912	84,494	47	810	1
FSM	2000	29,175	107,008	27	8,239	8
RMI	1999	10,141	50,840	20	4,536	9
Palau	2000	9,383	19,129	49	224	1
PNG	2000	2,344,734	5,190,786	45	68,623	1
Samoa	2001	50,325	176,710	28	2,620	1
Solomon Islands	1999	57,472	406,598	14 ^a	27,652	7
Tonga	2003	34,560	97,784	35	4,502	5
Tuvalu	2002	3,237	9,561	34	—	—
Vanuatu	1999	75,110	186,678	40	1,260	1

^a Employed does not include those in agriculture as is the case with PNG.

FSM = Federated States of Micronesia, PIFS = Pacific Islands Forum Secretariat, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, % = percent, — = data unavailable.

Source: Secretariat of the Pacific Community, available: www.spc.int.

indicates that about 50% of the youth of Solomon Islands are unemployed. For the fragile island states of the RMI and the FSM, limitations to land and food production—especially in urban areas, where about 70% live—mean few opportunities for subsistence living; thus, resulting in people, especially youth, being classified as unemployed. In main urban centers such as Port Moresby and Honiara, because of limitations on subsistence living, youth unemployment rates can be extremely high, giving rise to social tensions.

Land-rich countries such as PNG still offer employment opportunities in the long term notwithstanding issues on land rights. Urban living, however, raises expectations that are unlikely to be extinguished by access to land. For some countries such as the RMI though, alternative opportunities are virtually nonexistent as they approach and extend beyond the limits of their primary production potential. Threats to low-lying atoll societies from rising sea levels also erode the agricultural capability of those nations as well as job creation. Limits to formal and informal sector employment further reduce access to employment. Neither are there economic possibilities that might transform the situation. An issue for many regional countries is that they are unable now (and for the future) to provide employment opportunities for all their citizens who want employment.

Limited Opportunities in the Formal Sector

While Table A3.1 provides data on total employment that, in some cases, excludes certain types of work, and unemployment, table A3.2 provides data about formal employment. The difference between the two represents individuals in informal employment and agriculture. There is no difference between employment and formal employment in respect to the Cook Islands, Samoa, and Tonga. This, once again, may be due to country-specific definitions of employment and formal employment. The data that show the greatest difference between total and formal employment are in the land-rich and low-income countries, highlighting the relative importance of agriculture and the informal sector for employment.

In the case of the Fiji Islands and the FSM, for every person employed in the formal sector, another person is employed in agriculture and the informal sector. Formal employment is a small proportion of the labor market in the land-rich and low-income countries. With the exception of the countries that do not distinguish between formal employment and employment, the remainder countries have a formal sector employment share of the working-age group of 25–35%. Thus, for the Fiji Islands and the RMI, respectively, 25 and 35% of the working-age population have an opportunity for formal sector employment. While the shares in formal employment for countries such as the RMI are higher than for land-rich countries, alternative options such as informal and agricultural employment are less possible.

The limitations to formal sector employment are apparent when comparing

**Table A3.2: Employment and Working-age Population
Selected Pacific Island Countries, 2004**

Country	Total formal sector employment (No.) ^a	Working-age population (15–54) in 2004 (No.) ^b	Working-age population as share of total population (%)	Formal sector employees as share of working-age population (%)
Cook Islands	5,900 [2001]	7,300	52	81
Fiji Islands	120,000 [2003]	487,500	58	25
RMI	10,300 [2000]	29,600	54	35
FSM	15,100 [2003]	61,800	55	25
PNG	187,200 [2002] ^c	3,320,200	58	6
Samoa	57,100 [2001]	91,100	50	63
Solomon Islands	22,177 [2002] ^d	239,400	52	9
Tonga	34,600 [2003]	51,800	53	67
Vanuatu	16,300 [2004] ^e	111,000	51	15

a Sourced mainly from Asian Development Bank (2005). Adjustments have been made based on data from the Secretariat of the Pacific Community and elsewhere. The years to which the employment and unemployment data apply are shown in brackets.

b Sourced from the base-case tables used for the population projections.

c Said to include only jobs in urban centers.

d In 1996, the formal sector employment was shown as 34,200. Comparison with the figure for 2002 illustrates the impact of the 1997–2002 civil unrest on formal employment.

e Formal sector employment over 2000–2004 is said to include jobs in agriculture only where they are involved in "large-scale plantation-type businesses." In 1989, when this definition of formal sector employment was not used, and presumably, employment in other parts of agriculture was included, formal sector employment was 66,600.

FSM = Federated States of Micronesia, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, % = percent, — = data unavailable.

Source: Booth et al., 2006 referenced in Voigt-Graf, 2007b, p.13.

what formal sector employment is available. Table A3.3 compares the industry sectors in which people find employment, while table A3.4 indicates the occupations. Economic sectors can broadly be classified into productive sectors that generate revenue through export or through income substitution and service sectors that generally provide a range of services or products to the rest of the economy. Four countries had 10% or more of their wage employed engaged in nonagricultural productive sectors. Both the Fiji Islands and Samoa had more than 20% of the wage employed engaged in the nonagricultural productive sector.

Tourism activity, as another revenue earner, creates employment in the retail, wholesale, and hotel and restaurant sector. The share employed in this sector for the main tourist destinations of the Cook Islands, Fiji Islands, Samoa, Tonga, and Vanuatu is around 20%, but not all these jobs are tourist dependent. Thus, some countries such as the Fiji Islands have a significant share of the wage population in jobs that earn foreign exchange. There is much greater potential for an increase in the number of these jobs because they are linked to international markets. An increase or decrease is dependent upon the success of their products and services internationally. In turn, these sectors require additional services from other sectors; thus, leading to a gradual increase in wage employment overall.

Table A3.3: Percentage of Wage Employees by Industry Sector and Country

Country	Industry Sector								
	Agriculture, forestry, and fishing	Mining and quarrying	Manufacturing	Electricity and water	Construction	Wholesale and retail trade and restaurants and hotels	Transport, storage, and communication	Finance, insurance real estate and business services	Public administration, social/community services
Cook Islands ^a	7	0	6	1	6	33	10	5	31
Fiji Islands ^b	1	1	25	2	2	20	10	5	34
Kiribati ^c	7	0	2	2	4	14	11	3	52
RMI ^d	7	0	1	0	15	56	9	8	3
FSM ^e	1	0	1	2	5	24	6	4	55
PNG ^f	17	4	9	2	4	9	6	6	41
Samoa ^g	1	0	22	4	7	27	11	11	16
Tonga ^h	2	1	9	6	8	23	9	9	34
Tuvalu ⁱ	0	0	0		22	10	9	20	36
Vanuatu ^j	5	0	9	1	6	29	7	3	36

a 2001 data.

b 2000 data.

c An additional 3% had unstated wage employment (2006).

d Pertains to private sector wage employment only (2006), which in 2005 constituted 39% of all wage employees.

e (2004).

f 2000 National Census data.

g 2004 labor market survey.

h 2005 data from MLCI Business Survey.

i 2002 data.

j 2002 labor market survey.

FSM = Federated States of Micronesia, MLCI = , PNG = Papua New Guinea, RMI = Republic of the Marshall Islands.

Conversely, if countries have most of the wage employed offering internal services, there is less scope for an increase in the number of jobs over time. Countries such as Kiribati, RMI, FSM, and Tuvalu have few people employed in nonagricultural productive sectors. Much of the employment in these countries is in service-oriented sectors, with a significant proportion employed in the public sector.

Another measure of the labor market is the number of people employed in various occupations. Kiribati is notable for the high percentage of people employed under the category of legislators and managers, indicating the prominence of public sector employment. Kiribati, RMI, and Solomon Islands have around 20% of the wage workforce in the sales sector serving the local economy in the absence of a significant tourist industry, indicating a general lack of other opportunities. Associated with industrial activity, the Fiji Islands, Nauru, PNG, and Samoa have the highest share of the workforce engaged in craft work, and hence, these constitute nations with the highest demand for skilled workers.

Table A3.4: Percentage of Wage Employees in Occupational Classifications

Country	Occupational Classification							
	Legislators, senior officials, and managers	Professionals, technicians, and associates	Clerks	Service and sales workers	Skilled agricultural and fishery workers	Craft and Related workers	Plant and machinery operators and assemblers	Elementary occupations
Cook Islands	14	20	12	18	5	10	5	17
Fiji Islands ^a	4	22	13	13	1	11	16	16
Kiribati	19	19	14	17	6	8	11	6
RMI	4	15	13	20	21			24
Nauru ^b	1	16	18	13	0	15	7	20
PNG	5	25	13	14	1	15	8	19
Samoa ^c	1	7	9	11	42	12	7	10
Solomon Islands ^d	0	14	8	21	0	6	4	44
Tuvalu ^e	9	27	12	10	1			35
Vanuatu	9	25	12	18	3	3	6	16

a An additional 3% of the workforce is in the armed services.

b From the Nauru Bureau of Statistics, available: www.spc.int.

c These figures represent overall employment rather than wage employment. An additional 3% had unstated occupations.

d Estimate from World Bank (2007).

e 2002 data.

FSM = Federated States of Micronesia, PNG = Papua New Guinea, RMI = Republic of the Marshall Islands, % = percent.

Table A3.5: Skills Shortages in Fragile Island States

Skill shortage area	Tuvalu	Kiribati	FSM	RMI
Formal sector in-service skill areas				
Financial	x		x	
Management/supervision	x	x	x	
Human resource management			x	
Planning		x	x	
Land management		x		
Client service		x		
Formal sector occupations				
Plumbers				x
Carpenters				x
Construction trades			x	x
Electricians			x	x
Maintenance workers			x	x
Air-conditioning/refrigeration mechanics				x
Food preparation workers			x	x
Hospitality management			x	x
Hospitality workers			x	x
Information technology workers			x	x
Finance staff				x
Mechanical trades generally			x	x
Electronics repairers			x	
Fishing plant operators			x	
Agriculture/informal sector skill sets ^a				
Project proposal writing	x			
Vegetable production	x	x		
Coconut production	x	x		
Chicken/pig husbandry		x	x	
Fishing techniques	x	x	x	
Navigation		x		
Fish/food preservation			x	
Sewing	x	x		
Cooking	x			
Printing	x			
Handicraft	x	x		
Home maintenance/carpentry	x		x	
Mechanical and other technical	x			
Small business management	x			
Secretarial/clerical	x			
Irrigation			x	

a Reflects shortages expressed by individuals rather than training needs expressed by employers (Tuvalu). Surveys of the needs expressed by individuals generally show a desire by males for training in technical areas such as carpentry and mechanics; whereas, women usually show a preference for sewing, cooking, and handicraft. These needs, however, tend to reflect an individuals' desire for training rather than an actual skills shortage.

FSM = Federated States of Micronesia, RMI = Republic of the Marshall Islands.

Source: Country reports.

Table A3.6: Skills Shortages in Land-rich but Low-income Countries

Skills, shortage area	State		
	PNG	Vanuatu	Solomon Islands
Formal sector in-service skill areas			
Entrepreneurial skills		x	
Financial			x
Management/supervision generally		x	x
Human resource management			x
Computer skills			x
Office management			x
Communications			x
Planning			x
Report writing			x
File and record management			x
Policy development			x
Customer service			x
Sales and marketing			x
Public service understanding and ethics			x
Public service procedures			x
Clerical functions			x
Machine shop skills			x
Formal sector occupations^a			
Chefs	x	x	
Hospitality workers			X ^b
Plumbers	x		x
Carpenters		x	x
Gyprock plasterers		x	
Building finishing trades—high quality	x		
Construction technicians and supervisors		x	
Electricians	x	x	x
Bricklayers			x
Mechanics		x	x
Welders	x		
Maintenance workers		x	x
Chefs	x	x	
Air-conditioning/refrigeration mechanics	x	x	
Machine operators	x		
Electrical fitters	x		
Lathe operators	x		
Stock control personnel	x		
Laboratory technicians	x		
Quality control personnel	x		
IT technicians			x
Heavy plant operators—logging			x
Air-conditioning/refrigeration mechanics	x	x	
Machine operators	x		
Electrical fitters	x		
Lathe operators	x		
Stock control personnel	x		
Laboratory technicians	x		
Quality control personnel	x		
IT technicians			x
Heavy plant operators—logging			x

Table A3.6: Skills Shortages in Land-rich but Low-income Countries (cont.)

Skills, shortage area	State		
	PNG	Vanuatu	Solomon Islands
Agriculture/informal sector skill sets^c			
Basic management/business operations	x	x	
Marketing	x	x	
Budgeting		x	
Project management			x
Use of labor-saving implements		x	
Use of herbicides and pesticides		x	
Use of fertilizers	x		
Vegetable production	x		x
Coconut production and processing		x	x
Coffee production and processing	x		
Cocoa production	x	x	x
Cocoa processing	x		
Vanilla cultivation	x		x
Seaweed cultivation			x
Beekeeping			x
Livestock husbandry	x	x	x
Production of improved pastures	x		
Aquaculture	x		
Reforestation		x	
Fishing techniques			x
Turtle farming		x	
Cooking/baking		x	x
Handicraft making		x	
Sewing		x	
Home maintenance/carpentry		x	x
Mechanical and other technical	x	x	x
Plumbing		x	
Water tank construction		x	
Logging			x
Road construction and maintenance		x	

a For Solomon Islands, data are derived from the Public Service Department 2006 vacancies listed in World Bank (2007).

b Includes barpeople, waiters, tour guides, and events organizers.

c Data for PNG are skills gaps identified, for Vanuatu relate to skills gaps, and for Solomons Islands are indicated by villages.

IT = information technology, PNG = Papua New Guinea.

Sources: Country reports; World Bank, 2007.

Table A3.7: Skills Shortages in “Advanced” Island States

Skill Shortage Area	Fiji Islands	Samoa	Tonga	Cook Islands
Formal sector skill areas				
Financial		x		x
Time management		x		
Interpersonal		x		
Management and supervision	x	x		x
Communications		x		
Customer service		x		x
Public relations		x		
Clerical		x		
Computing and IT		x		
Fishing		x		x ^a
Driving		x		
English—written and verbal		x		
Basic safety		x		
First aid		x		
Food preparation and handling		x		
Sales		x		
Record keeping		x		
Numeracy, literacy, and generic				x
Formal sector occupations				
Plumbers	x	x	x	x
Carpenters	x	x		x
Electricians	x	x		x
Building finishing trades—high quality	x			
Building technicians	x			
Building supervisors				x
Maintenance workers	x			
Civil construction workers	x			x
Air-conditioning/refrigeration mechanics	x		x	x
Motor mechanics	x			x
Mechanical technicians				x
Hospitality workers	x	x		x
Hospitality industry middle management	x			x
IT workers	x			x
Finance staff		x		
Tour guides		x		
Fisheries workers			x	
Hairdressing			x	
Dressmakers			x	x
Textile workers				x
Hydraulics technicians				x
Electronics technicians				x
Dental technicians				x
Digital editors				x
Pearl seeders				x
Specialist pearl jewelers				x
Restricted class-6 master engineers				x

a These include fish location, long-line fishing, fish handling and chilling, fish processing skills, GPS navigation, radio communications, refrigeration, first aid, fire fighting, and navigation.

GPS = global positioning system, IT = information technology.

Source: Country reports.

Appendix 4. Training for the Rural and Informal Sector

Themes

Rural and informal sector training in the Pacific addresses five main themes:

- Poverty reduction through the facilitation of increased employment and income generation.
- Equity and empowerment of disadvantaged groups, especially rural women and out-of-school youth.
- Alternative livelihoods, based on the sustainable use and management of local environmental and natural resources.
- Private sector development through the promotion of self-employment and microbusinesses in both rural and urban areas.
- Migration and labor mobility, through equipping individuals with skills and competencies to enable them to access both internal and external labor market opportunities.

Issues

The main issues area as follows:

- Economic growth in most Pacific island countries (PICs) cannot generate even a fraction of the new jobs required to meet annual increases in the labor force. Additional employment opportunities must, therefore, be created by using informal sector training to promote self-employment in the local economy and increase the income-generating potential of subsistence agriculture.
- Training for the rural and informal sector suffers from a lack of prominence in most countries' national training agendas. As a result, it receives inadequate public funding and policy guidance to meet the needs of the great majority of unemployed youth, women, and rural poor in the Pacific.
- Even the limited resources available are not used as effectively as they could be due to the fragmented nature of informal sector training provision and the lack of adequate coordination between various government and NGO providers. In the Fiji Islands, for example, both the Ministries of Youth and of Education deliver similar short-cycle training programs to school-leavers but each develops its own separate portfolio of programs and materials. Improved coordination could facilitate the pooling of resources and a more cost-effective means of producing common informal sector programs and training materials. In Vanuatu, poor coordination between various NGO providers operating rural training centers (RTCs) has resulted in a geographic imbalance in facilities and unequal access to training in different parts of the country. In the Cook Islands, the lack of coordination between compulsory and postsecondary education and training was a major finding of the

2002 training needs analysis report (Catherwood and Topa-Apera 2002).

- There appears to be widespread gender bias when it comes to the types of informal sector training provided to men and women in the Pacific. Men tend to monopolize technical and trades training while women are found almost exclusively in home economics and domestic science-related programs. This directly constrains women's ability to start their own businesses or compete for jobs in the local labor market. There is an urgent need to broaden the training opportunities available to women and promote their active participation in "nontraditional" trades and management-related subjects.
- Informal sector training throughout the Pacific lacks the necessary feedback and evaluation measures to provide information on the impact of training activities. Information from graduates in the form of post-training tracer studies should be collected 3–6 months after the completion of training and the results used to inform decision making on subsequent training course provision. This has been a standard component in externally funded projects for the informal sector, such as the community-based training projects in Bangladesh and Nepal implemented by the ILO in the 1990s and, to some extent, in the current ADB Employment-Oriented Skills Development Project in PNG, but less so in government- and NGO-supported programs, namely, the RTCs in Vanuatu.
- Informal sector training needs to be closely linked to the world of work if it is to achieve credibility and long-term sustainability. Partnerships between training providers and the private sector should be promoted wherever possible as a means of improving the relevance and external efficiency of informal sector training.
- Building institutional capacity to design, deliver, and follow up informal sector training activities is a common need among both government and nongovernment training providers. Here, there appears to be considerable scope for cooperation and complementarity, with government providers focusing on the development of policy guidelines, appropriate methodologies, and materials, and NGOs using their grassroots organization to provide effective delivery systems and follow-up services.
- In atoll economies such as Kiribati and the RMI, the delivery cost of outreach programs constitute 80–90% of total training costs. The disproportionate ratio of delivery to total costs is one main reason for the paucity and low quality of training programs in the outer islands. In such cases, there would appear to be a justification in both economic and training terms for attaching informal sector training programs to existing educational infrastructure, thereby reducing delivery costs and freeing resources for program development and quality improvement.
- Providing informal sector training programs using ICT-based ODL modes could

significantly reduce the delivery costs of certain types of training for outer island target groups such as small business training, entrepreneurship, and self-employment-oriented programs. But experience from the Tarawa Technical Institute, which received funding from AusAID to conduct on-line training from Australia in the early 2000s, found that the telecommunications costs of running such programs in the Pacific is high and the institutional capacity needed for monitoring and following up ODL programs substantial. It is unlikely that these twin constraints can be overcome by individual atoll economies in the near future.

- The use of training technology to support informal sector skills development is limited in most PICs, but prospects are improving as computer facilities begin to penetrate rural areas. In the Fiji Islands, for example, MOE's Advanced Vocational Training Program is planning to use existing e-learning facilities in 21 rural secondary schools to establish e-community training centers and e training-cum-production centers to support and enhance informal sector training programs. Here, there would appear to be two main application areas to consider: the use of technology to provide or enhance the content of informal sector training programs (e.g., in accessing the experiences of similar programs in other countries via the internet; and the use of technology to produce more effective audiovisual training materials). The latter is particularly relevant in situations where target groups lack functional literacy skills, e.g., school dropouts, rural women.

Constraints

Among the major constraints are the following:

- Low funding priority accorded by governments. In part, this is a function of the inadequate allocation to TVET in general in the region (e.g., only 6% of total education budget in the Cook Islands), but it also reflects the lingering belief in government that NGOs should be responsible for rural and informal sector training. In some countries such as Vanuatu, such training is funded almost exclusively by NGOs, churches, and other private organizations.
- Low status of all types of nonformal education and training. Training officials in the Fiji Islands, PNG, and Vanuatu confirmed that formal, institution-based schooling continues to be the education of choice of parents and the public at large. This negatively affects participation rates in informal sector programs and the extent of support provided by local authorities. In some countries such as PNG and Vanuatu, efforts are underway to address this issue by incorporating informal sector programs into national qualification frameworks, thereby, providing them with a degree of accreditation and recognition, which most lack at present.
- Weak links to local labor and product markets. Training providers have very little

information on the demand for skills and competencies in the local economy and, hence, on the relevance of the training provided in terms of available employment or income-generating possibilities. This is a critical constraint in countries such as the Fiji Islands and PNG with large and increasing numbers of school-leavers. It needs to be addressed by trainers, local authorities, and local interest groups, including chambers of commerce, business and employer associations, and community development authorities.

- Lack of follow-up monitoring and evaluation. A corollary to the absence of labor market information is the lack of follow-up information on graduate outcomes. Monitoring and evaluation of programs is limited to donor-funded projects, and tracer studies of graduates are rare.
- Unequal access to training. Rural and informal sector training has developed in an ad hoc and largely unplanned manner in most countries. The distribution of facilities and programs is uneven and the provision of training opportunities is unequal between different islands, provinces, and geographic regions. In Vanuatu, for example, the availability of training at RTCs varies from one center per 2,400 people in Penama province to one center for every 18,000 people in Sanma province.
- Gender divisions. Female participation rates continue to be significantly lower than for males in rural and informal sector training programs for two main reasons: most RTCs are boarding facilities and many parents are unwilling to send girls to them; also, technical training is the main emphasis in most informal sector programs and, as yet, there is little participation of women in the Pacific in either trades training courses or artisan-based employment.
- Lack of coordination. This is between and within government and NGO providers. Scarce training resources could be used more effectively if there was better coordination between them. While each have their own constituencies and priorities, these often overlap or coincide, providing opportunities to cooperate, contribute to common objectives, and reduce costs.
- No interface between training and the agriculture economy. Agriculture represents a potential source of employment and income generation for participants of rural and informal sector training programs, in both service-related and small-scale agri-business activities. However, the lack of a functioning extension system linking improved agricultural practices to changes in the subsistence economy largely precludes possibilities to exploit this potential.
- Absence of cost-effective delivery systems for remote islands and atolls. The atoll economies of the Pacific are unable to provide adequate training services to significant portions of their populations living on remote and sparsely populated

islands. In Kiribati, the proportion of the population on outer islands is 50%, while in Tuvalu and the RMI, it is about 30% and 40%, respectively. Existing outreach programs are expensive and infrequent, with the delivery component—i.e., travel and per diem of staff—typically accounting for 80–90% of total training costs. In some countries such as the Cook Islands, many outreach programs rely exclusively on donor funding.

- Limited access to credit for self-employment. Access to credit is improving slowly after management problems with credit unions and development banks closed or froze many schemes in the late 1990s. However, coverage is still inadequate in rural areas and often limited to members of specific group-based savings and lending programs.
- Limited NGO training capacity. NGOs are charged with delivering a substantial portion on informal sector training in PICs. However, while staff are generally dedicated and committed, they often lack the pedagogical expertise and institutional support to design and deliver quality training.
- Outdated and inappropriate training hardware and software. Established rural training systems, such as RTCs, community-based training centers, and vocational centers presently operating in PNG, Solomon Islands, and Vanuatu need to be upgraded with new equipment and materials and their curricula modularized to facilitate the provision of short flexible training programs, instead of the 2–3-year courses at present offered in most.

Innovative Practices

These include:

- Integrated Agricultural Training Program (Rabaul, PNG). A modular training program for subsistence farmers that introduces them to basic tools and techniques for managing their assets and resources more effectively.
- Public–Private Partnerships for Income Generation (Kiribati). A collaborative approach between NGOs, development agencies, and the private sector to establish microbusinesses that is focused on environmental preservation in atoll economies.
- Mobile Training for Coastal Fishermen (Vanuatu). A novel boat-based delivery system for bringing new knowledge and improved techniques on fishing and fish-processing to coastal communities.
- Leveraging Traditional Trades for Basic Skills Training (Waan Aelon in Majel [WAM] program in the RMI). An NGO-run nonformal training program that uses traditional Marshallese boat-building techniques as a model for developing vocational skills in at-risk youth.

- Sustainable Skills Development for the Informal Sector through Training Funds (Employment-Oriented Skills Development Project, PNG). An example of a project-based donor–government training fund intended to provide a permanent source of financial support to informal sector training.
- Incorporating cultural values into nonformal skills training (RMI). The inclusion of cultural resource persons—usually elderly local residents—in outreach training programs of the Ministry of Internal Affairs, to describe and explain the importance of maintaining and preserving Marshallese cultural traditions in the face of a rapidly changing social and economic conditions. WAM also includes elders and cultural resource persons in vocational training programs to describe and explain the importance of maintaining and preserving Marshallese cultural traditions.
- Creating an enabling environment for informal sector activities (PNG). With the active involvement of the private sector and the Government, PNG has introduced legislation to promote and regulate informal sector activities in the country—the only such legislation in the region—and produced an informal sector training manual and resource directory to support informal sector development. While a small study in 2005 indicated that there is still a long way to go in changing official attitudes toward the informal sector in general and discrimination against informal sector operators in particular, legislation has provided the basis for drafting a comprehensive informal sector policy in PNG. This policy would address specific issues such as priority target groups, informal sector development strategies, and allocation of government resources.

What Works—and What Does not—in Informal Sector Training

Adding Value

Training for the informal sector seems to work best when it enhances an existing employment, productivity, or income-generation situation or opportunity. For example, Vanuatu’s mobile training program for coastal fishing people has worked well because it adds value to an existing economic activity. The training program enables coastal fishing people to develop or improve their fishing and seafood handling skills, to work more safely, and to operate and repair small boats and engines, thereby enhancing the occupation and lifestyle of coastal fishing people. Similarly, the integrated agricultural training program in New Britain shows subsistence farmers that they have assets and introduces them to new ways of using and managing them. In the process it opens up possibilities for introducing further improvements in the subsistence economy. What these examples suggest is that the rationale for providing informal sector training should be carefully examined and validated with the proposed target group before organizing and delivering programs.

Providing Post-training Support Services

There are few labor market services available for job seekers in rural areas. Training for unemployed target groups, school-leavers for example, therefore needs to be accompanied by a range of post-training support services that help graduates find jobs and facilitates the application of learning to productive employment or self-employment activities. Information on graduates from the ADB Employment-Oriented Skills Development Project in PNG indicate that most young people who received training did not have access to post-training support services and were unable to take advantage of the training received.

Training Projects and Institutional Capacity

Training projects for the informal sector have an important role to play in providing scarce resources for developing and validating innovative and cost-effective approaches to training provision. Nevertheless, without corresponding institutional capacity to absorb and effectively apply the knowledge and techniques developed in projects, sustainability will not be achieved and investments will be lost. The ADB Skills Training and Vocational Training Project in the RMI seems to prove this point. The training centers were built and equipped in the expectation that this would strengthen women's entrepreneurship training and provide NGOs with an outreach capability to serve outer island target groups better. However, the absence of a portfolio of appropriate training programs to run in the centers and the limited pedagogical capacity of NGOs to develop them meant that much of the envisaged training to end users was never given.

Training Funds

Most of the discussion on training funds focuses on the problems of good fund management and the means of ensuring that the available resources actually go for the purposes intended, i.e., sustainable training financing. The donor-supported training fund that was set up for the ADB Employment-Oriented Skills Development Project in PNG was managed by an individual with prior experience of fund management and the scheme generated a substantial amount of earned income. The problem was that the administrative procedures at both central and provincial levels were unable to process training proposals from prospective training providers and allocate timely. The result was that after waiting 6 or 9 months for a decision, government, private, and NGO providers in the participating provinces lost interest and the number of activities actually financed by the fund remained small in relation to the available resources. Therefore, training funds can provide a sustainable source of finance for informal sector training but they need to be properly dimensioned and administered efficiently at the training proposal and delivery levels.

Rural Training Centers

RTCs were established in the late 1970s and 1980s to deal with the “push-out” problem, i.e., the growing numbers of rural primary (and later lower secondary) school students who were unable to qualify for the next level of formal education. Most RTCs incorporated agricultural training in their curriculum, but the main emphasis was on traditional artisan-type skills such as carpentry, masonry, plumbing, and auto mechanics usually provided in 2–3-year programs. While actual tracer study data are scarce, discussions with RTC managers suggest that only a small proportion of RTC graduates were able to secure employment or enter into self-employment in the local communities, where they often competed with the output from regular vocational training institutions. Nevertheless, RTCs represent a substantial training resource in all countries where they exist, i.e., PNG, Solomon Islands, and Vanuatu.

What is needed is a revamping of their curricula to reflect the potential income-generating opportunities in the local economy, the switch from 2–3-year courses to shorter modular-based training programs to improve flexibility and efficiency, the introduction of regular monitoring and follow-up procedures to maintain relevance, and a general upgrading of facilities staff and equipment to improve the quality of RTC outputs. Some of this is happening in PNG under the ADB Employment-Oriented Skills Development Project and similar measures are planned under the AusAID project in Vanuatu. Where this has been implemented, the results appear positive. At the Raval Vocational Center in Rabaul, for example, the curricula for conventional trades were redesigned under a German Technical Cooperation program and new competency-based modular programs developed. By the beginning of 2004, more than 80 courses had been delivered for over 800 fee-paying participants. In 2005, the provincial authorities agreed to earmark 10 teaching positions exclusively for short courses, which were lengthened to a standard 20 weeks. Vocational centers can now plan, promote, and implement a continuous program of short courses year-round.

Training Strategies for the Rural and Informal Sectors

Country Group 1: Papua New Guinea, Solomon Islands, and Vanuatu*

Objective 1: Improve the relevance and effectiveness of existing RTCs.

Means 1: Reorient RTCs toward short-cycle skills development programs linked to employment and income-generation opportunities in the local economy.

- Carry out a training audit of existing RTCs to determine the current level of institutional resources and how effectively they are being used.
- Carry out a tracer study of recent RTC graduates from selected institutions to

* Please refer to the Map of the Pacific Island Countries by Category on page 10.

determine impact of training received, i.e., the number who have been able to obtain employment or enter into income-generating activities based on the training received.

- Discontinue long-term courses for which there is little or no evidence of impact.
- Identify potential income-generating opportunities at the local level.
- Determine related training and nontraining needs required to ensure the successful application of training to employment and/or income-generating activities.
- Work with RTC instructors and subject specialists to develop a portfolio of short-cycle modular training programs for each identified training field.
- Develop entrepreneurship skills. All types of training should be accompanied by preparation for self-employment. Provision should be made for simple management and business skills including market analysis and marketing, costing and book/record keeping, and linkages with small-scale credit.

Means 2: Improve the quality of RTC training.

- Upgrade the pedagogical and technical skills of RTC trainers.
- Ensure that RTCs are adequately supplied with training materials and equipment, especially hand tools in such subjects as carpentry and joinery, plumbing, electricity and auto mechanics.
- Introduce regular monitoring and follow-up procedures to assess quality and outcomes.
- Encourage RTCs to become more attuned to the skills needs of local employers and communities.

Means 3: Strengthen links between RTCs and the agricultural economy.

- In collaboration with the relevant departments of agriculture and livestock, review existing curricula for agricultural training in RTCs.
- Carry out surveys to identify viable and profitable local agricultural products and markets.
- Identify investment requirements and potential sources of rural credit.
- Develop short-cycle modular training programs on the production, processing, and marketing of selected local products.
- Provide short courses on basic farm-management and entrepreneurial skills.
- In cooperation with local cooperatives or growers associations, develop training and information materials on the promotion and marketing of locally produced agricultural products.
- Establish supply-chain linkages between the training centers and local retailers

and wholesalers of agricultural products, both as cost-recovery and quality-control measures.

Objective 2: Enhance the capability of NGO training providers to deliver community-based skills training at the local level.

Means 1: Strengthen existing NGO capacities to identify training needs and income-generation opportunities at the local level.

- Support the regular collection and analysis by NGOs of detailed information on community-based skill needs and income-generation opportunities in selected rural communities.
- Promote the use of comprehensive field-tested community-based training methodologies.

Means 2: Support the development of short outreach training programs and related audiovisual materials to support community-based training activities.

- Establish partnerships with selected RTCs to develop suitable outreach programs and training materials.
- Develop and test alternative delivery systems for community-based training programs, including distance learning modes and mobile training units.

Means 3: Strengthen the existing pedagogical capacity of NGO trainers.

- Organize a series of training-of-trainers workshops for NGO/private sector trainers on:
 - o Identification of training objectives in outer islands;
 - o Application of community-based training methodologies;
 - o Effective use of training materials and audiovisual aids; and
 - o Evaluation of community-based training programs.

Objective 3: Promote increased cooperation and coordination in local skills development between government departments and NGO training providers.

Means 1: Create a joint government—NGO organizational framework and procedures for promoting increased coordination and cooperation in the planning, implementation, and funding of nonformal skills development programs.

- Establish a nonformal skills development working group at the national level with representatives from government departments and NGO training providers.
- Develop a joint master plan for organizing and delivering skills training for the informal sector, indicating priority training areas and target groups, required resources, and proposed implementation strategies.

- Develop guidelines and procedures for ad hoc training partnerships between government and NGO training providers.
- Develop a proposal for financing nonformal skills development on a sustainable basis through the establishment of a joint government, NGO, and donor-supported training fund.

Country Group 2: Kiribati, RMI, FSM, Nauru, and Tuvalu

Objective 1: Improve access to short-cycle skills development programs on remote or outer islands

Means 1: Identify economic opportunities and training needs of outer island populations.

- Conduct annual surveys of potential economic opportunities on remote and selected outer islands, e.g., those with existing primary or secondary school facilities.
- Identify and analyze the economic feasibility of potential opportunities in terms of markets, required inputs/investments, and expected returns.
- Identify proposed training target groups.
- Present and discuss results with local community representatives and interest groups.
- Create a short list of viable economic activities, training needs, and required nontraining inputs.

Means 2: Design and develop short-cycle modular training programs linked to pre identified and assessed income-generating opportunities for outer islands.

- Identify lead training institution with expertise and experience in modular program development.
- Recruit part-time subject specialists as required.
- Design training curricula and training support materials, based on identified economic opportunities, training objectives, and target group characteristics.
- Test and validate program content and objectives.
- Identify and train trainers.
- Develop procedures for determining training demand.

Means 3: Develop cost-effective delivery systems for skills training in remote and outer islands.

- Conduct an inventory of existing training facilities, qualified staff, and material resources on the outer islands to provide a basis for deciding on which approach to training provision is most likely to be feasible and sustainable in the medium

to long term.

- Identify and adapt local education facilities to become local training venues.
- Determine the feasibility of establishing low-cost local training institutions on selected outer/remote islands.
- Identify potential local instructors and provide training in community-based training methodologies.
- Develop and test a mobile outreach capability to provide specialized training content/courses.
- Investigate possibilities for using technology-based ODL delivery modes.

Objective 2: Actively engage the NGO community in providing short-cycle training programs dealing with livelihood skills for women, out-of school youth, and other vulnerable groups

Means 1: Strengthen the existing capacity of NGOs to identify design and to deliver livelihood training to women, out-of-school youth, and other vulnerable groups on remote and outer islands.

- Establish local NGO-led working groups to identify priority livelihood skills for women and out-of-school youth on remote and outer islands.
- Update existing information on livelihood training needs and identify priority programs and target groups.
- Discuss proposals and cost implications with local authorities/institutions.
- Short list potential training activities with budget estimates.
- Identify potential sources of funding at national and local levels.
- Strengthen NGO training capacities in curriculum design and the development of audiovisual materials to support livelihood skills training.
- Develop and test livelihood-training packages.
- Conduct local training-of-trainers courses.
- Select appropriate delivery system alternatives.
- Develop and disseminate training course information to target groups and local authorities regularly.
- Obtain feedback and evaluate results.

Country Group 3: Cook Islands, Fiji Islands, Palau, Samoa, and Tonga

Objective 1: Provide increased training opportunities for school-leavers.

Means 1: Expand intake into existing programs.

- Replace 1- and 2-year programs with short-cycle modular-based programs.
- Expand existing franchise or cooperative programs to cover more subjects and institutions.

- Use available training facilities and equipment in secondary schools for skills training in evenings and on weekends.
- Recruit additional part-time training staff.
- Support the expansion of the private training market, e.g., by providing subsidies to private training providers or bursaries/vouchers to students.
- Provide increased information in secondary schools on nonformal skills training opportunities.

Means 2: Establish new community-based training programs.

- Collect information on training and skill needs at the community level.
- Identify potential income-generating opportunities and training requirements.
- Develop a modular databank of new short training programs and make it available to NGO and private training providers.
- Encourage employers and the private sector to sponsor short skills development programs for out-of-school youth.
- Contract local institutions and NGOs to design and deliver new ad hoc training programs for which there is demand.

Objective 2: Improve the quality of nonformal skills training.

Means 1: Improve the quality of training inputs.

- Validate the curricula of all nonformal skills development programs.
- Provide regular upgrading opportunities for nonformal skills trainers and instructors.
- Ensure that short training programs are adequately supplied with training materials and equipment, especially hand tools in basic artisan skills.
- Leverage available technical expertise in the local community.

Means 2: Improve the quality of the training process and outcomes.

- Develop, test, and validate quality assurance criteria and evaluation procedures.
- Introduce regular monitoring and follow-up procedures to assess outcomes.
- Encourage training providers to become more attuned to the skill needs of local employers and communities.

Objective 3: Develop entrepreneurial skills for increased self-employment.

Means 1: Promote increased entrepreneurship training.

- Introduce a component on entrepreneurship and self-employment into all nonformal skills training programs.
- Obtain, adapt, and use available structured training materials on entrepreneur-

ship development, such as the ILO's Know About Business modular training program.

- Make extensive use of case studies and best practice examples in training activities.
- Create and maintain a roster of resource persons from the private sector and specialized training institutions willing to provide inputs to entrepreneurship programs.

Means 2: Promote linkages between training and the private sector.

- Establish linkages between entrepreneurship training programs and local private sector organizations, e.g., chambers of commerce and employers' associations.
- Develop partnerships with private sector firms willing to provide short practical attachments for successful course graduates.
- Provide participants with information on locally available business development services, including credit and technical advisory services.

Means 3: Develop flexible and cost-effective ODL systems for entrepreneurship training.

- Identify and analyze existing examples of good practice in the provision of ODL in the region.
- Identify the strengths and weaknesses of ODL.
- Identify potential ODL programs and target groups/beneficiaries for entrepreneurship training.
- Identify required resources and partners for ODL program development.

Means 4: Create a conducive environment for the promotion of self-employment in the informal sector.

- Identify and amend local legislation and by-laws that discriminate against informal sector economic activities.
- Take proactive measures to facilitate informal sector trade and commerce, e.g., designating local venues as informal sector market places.
- Discourage harassment of informal sector vendors by local law enforcement officials.

Appendix 5. Donor Funding for Pacific TVET

International donors such as the Australian Agency for International Development (AusAID); European Union (EU); Japan International Cooperation Agency (JICA); New Zealand's Agency for International Development (NZAID); Taipei, China; and the United States, as well as international financial institutions, especially the Asian Development Bank (ADB) and the World Bank, play a considerable role in financing technical and vocational education and training (TVET) for Pacific island countries (PICs). The northern Pacific countries of the RMI, FSM, and Palau have compacts of association with the US, which funds most of the education budgets (90% for the FSM and more than 50% for the RMI). Cook Islands, Kiribati, Nauru, and PNG also receive considerable large development assistance grants from AusAID, NZAID, and EU. JICA has paid for both Samoa and Tonga to extend and refurbish their technology institutes.

Regional projects sponsored by the Commonwealth of Learning have assisted with funding for establishing the Pacific Association of Technical Vocational Education and Training (PATVET) and supported the development of open distance learning (ODL). The Pacific Regional Initiatives for the Delivery of Basic Education (PRIDE) project, funded by the EU and NZAID, offers substantial planning assistance to Pacific ministries of education, although to date relatively little has been done in the TVET area. Across the Pacific, most informal sector training is provided by nongovernment organizations (NGOs), which are heavily funded by international donors.

ADB has provided a number of grants and loans (PNG, RMI, and Tuvalu) for informal sector livelihood-improvement projects and microcredit schemes. The Pacific receives one of the developing world's highest per capita rates of donor funding and some of this flows into the TVET area. There is substantial scope for a coordinated regional approach by donors and financial institutions to support long-term sustainable improvements in the formal and informal TVET sectors. The rest of this appendix provides a summary of recent donor assistance in the TVET sector as identified in the country reports prepared for this study.

Cook Islands

Donors fund the major part of the Cook Islands' human resource development, including TVET. NZAID is the major donor for the Cook Islands and pays for most government scholarships, in-country training programs, and overseas training attachments. AusAID is also a major donor, and EU contributions under EDF9 played a significant role in the newly constructed Trade Training School.

The Department of National Human Resources Development (NHRD) is responsible for coordinating in-country training, scholarships, and work placements. NHRD receives 75% of its funds from donors with the Cook Islands Government contributing 25%.

An in-country training committee meets annually to consider proposals for in-country training as well as scholarships and short-term training assistance for block trades training in New Zealand. The committee consists of a private sector representative, industry representatives, donor officials, and NHRD staff. Currently, NHRD channels more of its resources to administration of donor funding and less on the development of policies that promote sustainable human resource development.

The Trades Training School provides the major technical skills training from Level 1 to Level 5 for building construction, plumbing, automotive, electrical, and computing. Local tutors, funded by NZAID, support formal trade qualification courses. The Trades Training Center has not received an operational budget from the Cook Islands Government since it opened recently and is fully dependent on donor support, as are the Hospitality Training Center, Teachers College and the University of the South Pacific (USP).

NZAID also funds a tutor for outer island students enrolled in level two business administration and computing courses delivered by the New Zealand Open Polytechnic in collaboration with USP. NZAID has agreed to fully fund outer island students for their level 3 business courses.

The Marine Training Center (MTC) delivers maritime training for domestic purposes, rather than training seafarers to international standards as in other PICs. MTC receives funding from NZAID with course fees only contributing to course refreshments and training materials. Course fees are waived on the outer islands.

NZAID has also funded a small business enterprise center, referred to as Te Mato Tupuranga. It was originally established to assist the transition of redundant public servants to the private sector following Cook Islands' substantial public sector reforms in the 1990s. It now offers a range of business services and continues to receive most of its funding from NZAID.

The ongoing availability of donor funds encourages the Government to place little emphasis on funding TVET programs. A more sustainable approach to tertiary education and training is required. The current approach heavily stresses administration of donor funding, and places insufficient emphasis on sustainable policies that promote self-reliance. The Cook Islands Government needs to emphasize direct funding of TVET programs more rather than rely on donors for ongoing operational funding.

Federated States of Micronesia

The FSM is heavily dependent on USAID through the Compact of Free Association relationship, with a substantial proportion of the FSM budget being met by the US Government. A training unit within the FSM government's executive branch coordinates all training opportunities, including TVET, conducted either within the FSM or overseas. The financing of 90% of all education programs delivered within the FSM either by the

FSM national or state departments of education are paid for by Compact funds and other discretionary assistance programs. Replacing Compact financing for education generally and TVET specifically is the greatest challenge for the country.

FSM's major trade training program—trades, training, and testing (T3)—was designed as part of Pacific regional vocational education initiatives sponsored jointly by the United Nations Development Programme (UNDP) and the International Labour Organization (ILO). T3 has offered programs in construction, electrical, and mechanical trades since 1984.

Private training providers, NGOs, and not-for-profit organizations receive donor funding for informal capacity-building initiatives ad hoc. These stand-alone and short-term (1–2 days) skills training services are aimed at addressing immediate livelihood needs. This includes the Chuuk Women's Council Small Micro-Enterprise Development program, which was originally funded by the UNDP Small Grants Scheme in 1999. The program has since become a self-funding operation.

Nonformal training is largely provided and managed by a multitude of NGOs, civil society organizations, community-based organizations, and faith-based organizations, all funded primarily by donors.

While the FSM does not currently have any TVET-related donor projects, an ADB technical assistance on private sector development recently conducted a TVET audit.

A number of donor projects include some element of human resource development, capacity building, and institutional strengthening, including:

- (i) Pohnpei Business Development Center – a private sector business-training program funded through ADB. This program is designed to help generate new and expand existing small and medium enterprises through appropriate provision of advisory and technical skills training for business entrepreneurial activities.
- (ii) Public Sector Capacity-building Road Map – another ADB-funded project, established to address current gaps in macroeconomic management capacity, especially those in the areas of economic planning, statistics and financial management, vis-à-vis human resource development and management.
- (iii) Basis Social Services Project – an ADB-funded technical assistance project aimed at improving the policy environment of the education and health sectors. One deliverable in the education sector is the development of an education information management system.

Fiji Islands

Education in the Fiji Islands has benefited from a number of donor-funded development projects.

The following projects have specifically provided assistance for TVET in the school system:

- (i) AusAID–Fiji Education Sector Programme (FESP) – equipping nine TVET centers, plus technical assistance for entrepreneurship education and industry-school compacts.
- (ii) EU–FESP – assistance in equipping schools, and technical assistance on competency-based assessment.
- (iii) JICA – assistance in equipping schools.
- (iv) PRIDE – assistance in curriculum development for vocational subjects in secondary education.

NGOs and donor agencies are the main financial supporters of nonformal training in the Fiji Islands and it is only recently that efforts have been made to include nonformal programs into the regular offerings and budget of the Ministry of Education (MOE). NGOs and other community-based organizations work at the grassroots level to deliver informal training to improve subsistence livelihoods. Organizations such as the Fiji Council of Social Services and the regional NGO, Foundation of the Peoples of the South Pacific, can facilitate the delivery of funding agency inputs and services, such as microcredit for end users.

ILO has supported an Integrated Human Resource Development Programme for Employment Promotion through its Suva office. This is an ambitious attempt to address employment generation in the informal sector in a holistic and coordinated manner. The project brought together some 17 government ministries and departments to identify potential income-generating activities in various small business sectors. The project provided necessary technical and business training and facilitated initial credit requirements by establishing a national center for small enterprise development with a microcredit component. By the end of April 2005, the project had initiated 20 income-generating activities of which 17 (85%) were deemed successful. Generated were 3,800 jobs and average profit margins varied between 20% and 100%.¹ ILO considered the project only partly successful and it never gained the kind of momentum to carry the project past the pilot stage. The reasons, below, reflect weaknesses common to many training programs for the informal sector:

- lack of support from central ministries;
- not regarded as part of MOE's normal work of officials;
- not part of the Government's key results areas;
- no officially approved coordination mechanism;
- restrictive local regulations; and
- no support from local technical officials.

Although as a project it never achieved the coverage or impact that was intended,

¹ ILO. 2005. Integrated Human Resource Development Programme for Employment Promotion Progress Report. Suva.

individual components of the project survived and continue to operate in their respective ministries or as stand-alone institutions.

Kiribati

Kiribati has several active donors in the education sector including AusAID, EU, and NZAID. AusAID and NZAID are harmonizing their efforts in funding and are focusing on providing support to education, public service performance, resource development, and urban renewal. AusAID is examining the strengthening of the Tarawa Technical Institutes (TTI), the country's premier technical training institution, in areas such as electrical trades and plumbing. An EU project—the Kiribati Training Programme II, a TVET-strengthening project—has been completed and TTI has received a new workshop complex from this project.

ILO has continued supporting the Ministries of Labour and Human Resource Development and of Commerce, Industry, and Cooperatives, especially in funding short-term skills training. While there is no documentation about the outcomes of this training, interviews suggest that the actual use of the training has been poor in the case of training for self-employment. In some cases, the opportunities are limited, particularly so if capital is required to set up a business and finance is unavailable. There is also an issue of the suitability of candidates, that is, people with an interest in the skills and an intention to set up a business.

Lessons learned from past projects are avoidance of development of infrastructure which may not be sustainable through recurrent funding; and avoiding training provision that is unlikely to have employment/self-employment outcomes through an appraisal of opportunities, appropriate selection of candidates, and provision of support including microcredit.

Nauru

Nauru is heavily dependent on international donor assistance for skills development of all types and donor grants from AusAID and NZAID make up more than 50% of the education budget, including finances for the limited TVET activities. Scholarships are by AusAID; Thailand; Taipei,China; Canada; Japan; and the Commonwealth.

Papua New Guinea

The Government of PNG has had considerable amounts of donor funding since independence in 1975 with donors funding more than 85% of the national education budget in 2005. AusAID, EU, and ADB are the main external donors supporting TVET through various projects, including informal sector training. TVET has benefited from the following donor-funded development projects.

Promotion of Vocational Training Project funded through the German Technical Cooperation (1993–1995 orientation phase; 1995–2001 implementation phase). Core activities included:

- identifying pilot vocational training centers for project activities;
- introducing competency-based training (CBT) and development of CBT curricula;
- training of vocational center instructors and managers; and
- providing advice and support at the national and provincial levels.

AusAID assistance to the TVET sector since 1997 has occurred under three programs. The first for AU\$18 million focused on developing skills standards and a skills-testing system. Included in this development was refurbishing parts of technical colleges to be used as skills-testing centers. Substantial training of teaching staff also took place in competency-based instruction. The outcome of this project was an operational skills-testing system that had already unified many elements of the TVET system. Companies use the system to plan their own training and TVET providers use the standards as benchmarks for curricula. However, the system was limited to only seven occupational areas.

The second AusAID project, Project on Occupational Skills and Standards worth AU\$3 million (2004–2006), focused on extending the range of occupational standards and hence the extent of skills testing. A range of new standards has been produced, thus, substantially enhancing the overall capacity of the National Apprenticeship and Trade Training Board. However, skills testing has not yet begun in the new skills standards areas.

The current AusAID activity is the Education Capacity Development Program (ECDP) (2005–2009; K138 million). It supports education reform through strengthening education operations and improving systematic integration among all levels of administration responsible for managing and financing the education sector. Chief beneficiaries are officers at the National Department of Education headquarters, and provincial and district officers charged with developing effective and efficient delivery mechanisms. ECDP provides some support to TVET including improvement to curriculum planning and the development of the TVET national qualification framework.

ADB has funded the Employment-Oriented Skills Development Project, which began in 2001 and was based on an ADB technical assistance (TA) project carried out in 2000, which examined constraints to informal sector development in PNG. The project addressed three main priorities identified in the TA project, namely, the absence of an enabling environment for informal sector activities in PNG, lack of institutional capacity to design, develop, and deliver informal sector training programs, and need for a financial mechanism to promote long-term sustainability in informal sector training. The total value of the project was US\$39 million, of which US\$20 million was provided by

an ADB loan. The project was originally scheduled to close in June 2006 but has been extended until December 2007.

EU has identified two projects to support the development of community-based training and nonformal education in rural areas. The first is the Community Participation in Vocational Training Project, which is about to be launched, and which seeks to reorient vocational centers in four pilot provinces toward the needs of local communities and to provide opportunities for students to acquire skills of relevance to the nonformal sector. The project builds on the experience of previous and ongoing activities by German Technical Cooperation and ADB and focuses on strengthening the management of vocational centers and linking them more closely to the needs and priorities of local communities. The 5-year project is scheduled to run until the end of 2011, and has a proposed budget of €7.7 million.

A second related project funded by EU is the Community Learning and Awareness project, which will provide nonformal education learning opportunities, including income-generation training, for individuals who have not experienced or completed formal education. The project will provide institutional support to the Department of Community Development to enable it to better carry out its new responsibilities for nonformal education in partnership with the nongovernment sector. It will also support community-based learning by providing learning materials to teachers. The project budget is €4.5 million.

The Ginigoda Business Development Foundation in Port Moresby has been receiving AusAID support since 2002. It focuses on preparing residents in the Port Moresby area for self-employment with a combination of technical and business skills delivered through short courses, in collaboration with the chamber of commerce, the local vocational training center, and a local micro finance institution. Participants, mostly women and urban youth, receive an intensive 2-day modular course on basic business awareness, in which they identify potential self-employment opportunities. The second day is devoted to teaching participants the principles of costing, pricing, record keeping, and family income management. Participants then embark on the technical skills training component that lasts from 1–2 weeks to 3 months at the vocational center. The foundation has financed the training of 400–500 people a year. To date, it estimates that some 2,000 individuals have participated in its programs and that about half of these have gone on to set up microbusinesses in the informal sector.

The immediate goal of the foundation is to raise incomes for disadvantaged groups, primarily families and individuals from the urban settlements of Port Moresby. The long-term objective is to establish an appropriate and efficient microenterprise program based on self-employment in the informal sector.

Republic of the Marshall Islands

The RMI's national budget has averaged just above \$100 million in recent years, two thirds of which is funded by foreign assistance, primarily the US and Taipei,China. More than half the education budget is funded by grants under the US Compact of Free Association.

TVET providers, predominantly NGOs, are now funded mostly by grants from international organizations with some government funding. Training for the rural and informal sector in the RMI is gaining momentum as it becomes clear that the economy cannot generate even a fraction of the estimated 300–400 new jobs a year required to absorb the annual output from the education system.

In 2000, MOE, in an effort to address the job shortage, launched a 5-year skills development project with financial assistance from ADB.² One objective was to establish a decentralized training capacity and community outreach program for women and unemployed youth. This component was to improve income-generating opportunities for women and youth, especially in the outer islands, by delivering short-cycle skills training, linked to income-generating opportunities, and supported by a women's training, marketing, and information center. The training for this program depends mainly on NGOs.

The Ministry of Internal Affairs (MIA) also provides training, workshops, and other information to encourage the development of import-replacement products and improve the production of existing products. In addition to regular government funding and project support from Taipei,China, the ministry accesses financial support and technical assistance from regional and international bodies such as the Secretariat of the Pacific Community, UNDP, the Pacific Islands Forum Secretariat (PIFS), and the Food and Agricultural Organization of the United Nations. The ministry has two extension and demonstration facilities on Laura Village in Majuro and both are managed through a technical assistance program funded by Taipei,China. With training support from Taipei,China, a Laura farmers' association was recently formed for cooperative farming, marketing, and sales.

MIA runs 12–16 training workshops for income generation per year (3–4 per quarter), each of a week's duration, for farmers, fishing people, and small-scale producers from both Majuro and the outer islands. The ministry collaborates closely with special interest groups such as women and cooperatives and has links with the Small Business Development Center (SBDC). In 2005, about 400 individuals attended the ministry's programs which, typically, are organized for 25 participants each. In addition to the technical content, training is also provided on such topics as packaging and marketing of processed goods and handicrafts. However, the ministry estimates that less than

2 ADB. 2001. Skills Training and Vocational Education, Loan No. 179. Manila.

10% of participants in its programs have actually gone on to set up income-generating activities.

Two reasons were given for this low figure: limited availability of credit for small-scale entrepreneurs and the absence of a central marketing facility for displaying and selling products. Both issues are now being addressed. The Majuro local government has just inaugurated a central market in Majuro where individual producers can sell their goods. The Bank of the Marshall Islands has recently established, with Taipei, China's financial assistance, a microcredit scheme to support self-employment and microbusiness development. The scheme is based on a \$700,000 grant from Taipei, China and is intended to support both new and existing small business throughout the country. Links between the bank and SBDC mean that those who require assistance in developing business plans in connection with loan applications can approach SBDC for assistance. SBDC is part of the US Small Business Administration (SBA) program and was established in the RMI in 2001. SBDC provides occasional training and workshops on business planning, financial statements, marketing, and customer service. SBA and the RMI cofund SBDC, with \$60,000 coming from SBA and \$20,000 from the RMI (for FY2007). The program provided training to 126 people in 2005 and it will increase this to over 200 through at least 21 training sessions in 2006.

The Marshall Islands Council of Nongovernment Organizations (MICNGO) was established in 2003 to serve as a voice for nonprofit, community-based organizations in the RMI and to facilitate communication between local NGOs and third parties at national, regional, and international levels. MICNGO received funding for small education projects from ADB and the United Nations Educational, Scientific and Cultural Organization (UNESCO). It has submitted several additional funding proposals to EU, the Small Grants program of the Global Environment Facility, and the US Department of the Interior.

MICNGO's first priority has been to strengthen the capacities of its seven members to manage their respective organizations, identify resource needs and access funds from government and external donors. To facilitate funding possibilities, MICNGO has participated in several regional and international workshops organized for nonstate actors by ADB, EU, and World Bank. In 2005, it supported the implementation of the ADB-funded TA project on youth social services, and MICNGO staff were also involved in a subsequent ADB TA on increasing ownership and effective demand for education in the RMI. As neither MOE nor MIA has the personnel or financial resources to significantly expand outreach training activities, the National Training Council (NTC) looks to the NGO sector to assume an increasing share of training responsibility.

Women United Together Marshall Islands is currently implementing or awaiting approval on eight donor-funded projects on various aspects of women's development

and woman's rights for a total value of just over \$300,000. Funding agencies include AusAID, NZAID, Pacific Resources for Education and Learning, United Nations Development Fund for Women (UNIFEM), and UNDP.

WAM is an innovative NGO that teaches out-of-work youth the traditional craft of canoe building. It has identified five potential sources of funding: government sources such as funds offered by NTC, US federal government programs, the private sector, the international donor community, and self-generated funds.

The Skills Training and Vocational Education (STAVE) Project was an ambitious, multiyear, multiparty effort to bring RMI skills development and career awareness into the 21st century. STAVE ran from January 2001–August 2005 and was worth \$9.1 million, \$6.8 million of which came in the form of an ADB loan and the remaining \$2.3 million provided by the RMI. STAVE was to improve skills training to provide well-trained skilled workers for sustained economic and social development. This was to be done by implementing an integrated and articulated national skills training and certification program.

Specifically, STAVE aimed to strengthen the quality of the career awareness program to provide guidance to high school students in career and skills training options, improve relevance and quality of skills training, and increase skills training oriented to short-term employment and self-employment for the unemployed and underemployed on the outer islands, with a special emphasis on women and youth.

However, there was limited success in a number of areas. Some important assumptions built into the project did not materialize. For example, the College of the Marshall Islands was assumed to be a major provider of skills training throughout the project and thereafter, but unforeseen events there prevented it from fulfilling this role. The WIA program was also assumed to be a major training provider but its exit from the RMI under the amended Compact, prevented this. NTC participation and leadership throughout the project was weak. Part of the original terms of reference that called for institutional strengthening of NTC—including development of national skills standards, testing and certification systems, etc.—were never accomplished. The project's steering committee had limited engagement in the project. Roles and responsibilities of various stakeholders also remained unclear at the end of STAVE.

In short, the hardware development and installation component of STAVE succeeded, but both the software and networking components were not so successful. The RMI is now struggling to meet debt repayment commitments, exacerbated by rising servicing fees.

Samoa

Samoa has had a number of donor projects specifically dealing with TVET over the past few years, focused on Samoa Polytechnic. The National University and the Polytechnic

merged in recent years to form the National University of Samoa, Institute of Technology (NUSIOT). These projects have complemented the Strategy for Development of Samoa and they reflect the Government's commitment to education.

The following are TVET-specific projects that have been for implemented through NUSIOT over the past few years.

JICA upgraded the Samoa Polytechnic (now NUSIOT). New workshops, classrooms, and an administration block were built, other facilities were renovated, and new equipment provided. This project, completed in 2006, will upgrade the standard of TVET provision in Samoa. It will also continue supporting TVET development within NUSIOT by training staff for equipment maintenance and management. JICA has also funded upgrading of TVET teacher qualifications through the Samoa Association of TVET Institutions program to upgrade teaching skills, develop curriculum, and enhance assessment abilities.

AusAID funded a strengthening project for developing the TVET curriculum and human resources. Sunshine Coast Technical and Further Education College implemented this project between 1997 and 2001 and it converted the trade program curriculum to CBT and assessment. This was achieved by changing the curriculum for each course into modules. Students are now assessed at the end of each module's training before they start on the next module. If they fail, they can always be reassessed, so there is limited or no chance for failure and students are properly trained in their areas of specialty when they graduate.

The feedback from stakeholders and industry advisory panels has been positive but the curriculum will need to be monitored and improved to keep pace with fast-changing technology. NUSIOT certificate-level courses use CBT curricula and can easily review and change course content and modules from occasionally to accommodate changes in labor market needs. The main concern about CBT is the high cost of resources and materials required because of the increased number of assessments. Another criticism is the level of student specialization at the cost of general competencies gained in other areas under the former time-based curriculum.

NZAID designed and implemented a project between 1997 and 2001 that established academic and corporate services policies as well as undertaking staff-development programs by offering certificates in adult teaching courses. The policies developed because of this project are now used as guidelines for all academic and corporate services developments to meet the needs of students and industries. Other areas of support by NZAID include training of staff under its short-term training scholarship scheme, directly benefiting NUSIOT staff by improving their skills and qualifications.

Other donor assistance includes the establishment and ongoing support for the Marine Training Center (now School of Maritime Training) from the Government of Ger-

many. The International Maritime Organization (IMO) through SPC had also assisted in curriculum and staff development. The Samoa Qualifications Authority is being initially funded by UNDP with the Government assuming funding responsibility after the first 2 years.

Other TVET providers in the formal and nonformal sectors receive considerable donor agency support. Private providers are funded by their own organizations, e.g., churches, school fees, with some annual financial assistance from the Government and donor agencies.

The Samoa Umbrella for Nongovernment Organizations (SUNGO) is the national body that represents and coordinates training for NGOs. It also monitors and evaluates training programs and has indicated a high level of success with the training provided. Most of this training is funded by donors and has to comply with donor requirements. SUNGO states that this training is successful about 60–70% of the time. National data on training evaluations and tracer study results on the outcomes of training are needed to ensure the level of success and sustainability.

A National Coordinating Committee for Second Chance Education provides youth that have dropped out of school and people in communities with opportunities to reenter the formal education stream and go on to further education. Through donor assistance from the Commonwealth secretariat, and others, overseas tutors are running courses on curriculum development for representatives of local organizations to promote training for “second-chance” students.

Solomon Islands

Funding agencies have contributed to TVET in Solomon Islands in both the formal and nonformal sectors. EU is the biggest donor helping TVET with support to the RTC project commencing in 1993. This project assisted 28 “working” RTCs throughout the country. There have been two phases and a bridging period. Phase 1 began in 1993 for 3 years and was then extended by 1 year and cost €1.7 million. Phase 2 started in 2000 for 3 years, was then extended, and completed in April 2004. A bridging period then began in September 2006, costing €1.96 million.

Phase 2 was intended to consolidate the results of phase 1 and incorporated the following features and dealt with curriculum development for RTCs and both preservice and in-service training for teachers. The midterm review (2003) and the subsequent evaluation in 2005 of the TVET curriculum-development activities point to the project as having limited impact. A tracer survey of RTC graduates in 2002 revealed that graduates were not well integrated into their communities, and the skills gained were not regarded of the quality necessary to achieve an impact. The project did not tackle the fundamental issues of quality of training, management of RTCs, institutional structure,

support, or capability. Nor did it tackle basic systemic weaknesses that appear to have long plagued the provision of TVET by RTCs.

Other donors including NZAID, AusAID, and JICA have assisted TVET development, in a limited way, in the form of equipment and infrastructure for RTCs.

The national technical institution, Solomon Islands College of Higher Education (SICHE), has benefited from donor assistance, mainly from EU and NZAID, in the form of student bursaries and program support to the schools of education, marine and fisheries, and finance and administration. In 2005, Taipei, China through MOE provided SI\$0.5 million for improving student facilities at the Kukum campus of SICHE.

AusAID, EU, NZAID, and the World Bank jointly funded a National Skills Training Plan study in 2006. The study identified a number of options for improving the quality of and increasing access to skills training. While there is significant unemployment in the country, there remains a strong demand for skilled labor in specific occupational areas. This situation exists in both the private and public sector. The report suggests that the present workforce does not have access to the kinds of high-quality skills training necessary for employment in these high-demand occupations. It also suggests priorities for training and a rationale for proposed reforms. Reforms should take place at tertiary education, training centers, and in short-term, in-service training.

The EU will be funding a major TVET project to begin in 2007 worth \$4 million. The project outcomes will include establishing and strengthening a national training authority and three provincial councils, developing labor market survey and instructor training, the providing infrastructure and training equipment to selected institutions, and establishing a skills development fund.

Tonga

Funding agencies help TVET training in Tonga in various areas. AusAID and NZAID fund short-term training courses conducted in Tonga in areas relating to development priorities, including improved governance, public sector reform, finance, and revenue collection. Some courses support the objectives of the major AusAID funded development projects (health, tourism, waste management, and fisheries). The in-country training program for 2005/06 to be funded by AusAID included 27 training sessions with a budget of \$404,090. The approved NZAID allocation for the in-country training program for 2006/07 is \$350,000 (covering fees and disbursements for the training providers and program management). The New Zealand High Commission in Tonga provides financial support for students to attend local postsecondary institutions and to undertake study leading to formal qualifications. An in-country awards program operated in 2000–2005, and the rationale was to offer a more cost-effective way of promoting the postsecondary training required for Tonga's development.

The in-country awards program provided 50% of the school fees for awardees with a further 50% refund for students with A and B average passing rates and 25% refund for students with a C average. An accommodation award was also available for students who resided in hostels at the USP Tonga Center and Hango Agricultural College.

The Government and other stakeholders have expressed a preference for a staged approach to handing over of the management of the in-country awards program to the Scholarships Office of the Ministry of Education. This action would be consistent with NZAID principles to achieve effective partnerships, sustainability, and donor harmonization.

Toward achieving stated objectives the program has:

- attracted about 200 applicants each year;
- supported 145 student-years of post-compulsory study in Tonga in 2000–2004, with a further 33 student-years begun in 2005;
- awarded, on the average, half of these student-years to females; and
- awarded, on the average, 26% of these student-years to outer island students and supported enrollments at an outer island institution (Hango).

The Government of Japan has assisted education as a whole through the Grant Assistance to Grassroots Programme for construction of classrooms and other school facilities. This included the construction of the new facility for electrical and electronic courses at TIST. Other forms of assistance included the continued provision of instructors by JICA and Japanese Overseas Cooperation Volunteers to TIST and to the Community Development Training College.

Tuvalu

International donor assistance has focused on the Tuvalu Maritime Training Institute (TMTI) and studies of the TVET system. ADB approved a loan of \$1.85 million plus a TA grant of \$0.3 million to the Government in 2002 for refurbishing and expanding TMTI. Facilities to be built or upgraded include a wharf extension and safety-at-sea training equipment, firefighting equipment, water catchment and storage facilities, new and renovated staff housing and better trainee quarters, and specialist training and operational equipment. Delays in contracting postponed the start of construction to 2006. Within 6–9 months the Institute was scheduled to have six classrooms instead of two, male boarding capacity of 80 students (compared with 40 at present), 18 teacher houses (double the nine at present), and a house for female trainees. In addition, equipment will be replaced in the engineering and seamanship workshops. The ADB project will provide TMTI with possibilities to either expand its current intake or to offer places to female trainees at some future date. Expansion, however, should be based on international demand for trained seafarers. Currently, the shipping market does not seem to indicate any demand

for significant increases in the number of trainees.³

In addition, Taipei, China has agreed to earmark \$200,000 a year for 4 years for TMTI out of its grant to the Government. These funds are supposed to be ring fenced. However, the Government only paid the amount owed for 2005 in mid-2006 and by mid-2007 had paid nothing for 2006.

The New Zealand Government has been assisting TMTI through a contract for technical assistance through the New Zealand Maritime Institute, including services of the principal until a permanent one can be recruited.

AusAID has been providing short courses delivered by Australian experts. Usually, these are 2-week courses for 22–30 participants. In 2003/04, courses were delivered in Tuvalu in the following technical and vocational subjects: vehicle maintenance, industrial electronics, joinery, plumbing and drainage, and electrical generator maintenance. These courses tended to be cost effective compared with sending Tuvaluans abroad. On the average, the short courses cost \$24,000, or around \$1,000 per participant. Another advantage is that they include some people from the outer islands as well as those who have lower levels of education.⁴

Several studies have been carried out on the TVET system in Tuvalu. These include: AusAID's HRD Study (2003) which makes several recommendations aimed at improving strategic human resource development processes; The Tuvalu Technical Vocational Education and Training Study (NZAID 2003), which commented that the most feasible TVET option was to build on and enhance the capacity of existing institutions and programs—the ADB team working on the Education and Training Sector Study and Education Sector Master Plan with MOE (March 2004) raised similar concerns regarding the urgency of providing more TVET options—and NZAID Support for the Training Needs of the Kaupule, Falekaupule and Community in Tuvalu: Training Needs Assessment and Project Feasibility Mission, (2004) by Peggy Fairbairn-Dunlop, Martin Grinstead, and Lete Avenitele. This report concentrates on support for administration of island trust funds, but also identifies training needs on the outer islands.

Vanuatu

The TVET sector in Vanuatu has arguably received the Pacific's highest level of donor support. Vanuatu has put in place many of the elements of a strong TVET system with donor assistance including the Vanuatu National Training Council (VNTC), Vanuatu Institute of Technology (VIT), the national qualification framework, and registration/accreditation of institutions and programs.

³ ADB. 2004. Improving Technical Education and Vocational Training: Strategies for the Asia Region. p. 59.

⁴ Australian Agency for International Development. 2004. AusAID In-Country Training: Tuvalu. Fourth quarterly report, 2003–2004. April–June.

AusAID has been providing substantial, comprehensive, and sustained assistance to the TVET sector in Vanuatu with the first intervention spanning 1995–2004 and focusing on assistance to VIT. Under the project, VIT's capacity was strengthened through management training, staff training, development of equipment and facilities, establishment of a train the trainers program for TVET instructors, and development of curricula in business, tourism and hospitality, joinery, masonry, mechanical, automotive, and electrical. Australian assistance is being continued and broadened through a 6-year, three-phase, AU\$12-million, TVET Sector-Strengthening Program that started in November 2005. The program seeks to support and strengthen existing systems rather than establish new ones in both formal and nonformal TVET.

Of particular interest are efforts under the AusAID program to create a quality fund to which institutions can apply for small grants (maximum Vt2,000) for equipment. The program will also establish two provincial training centers (essentially an office building with training space) and mobile training for outreach to communities. Any NGO or other provider will be able to use the premises to conduct courses. In addition, the program will pilot the “alternative” TVET streams at the senior secondary level in five secondary schools with spare hostel and workshop capacity.

Education consumes more than 25% of the government budget, but only 6% is allocated to TVET. Current funding to the TVET sector is small and will be strained further by recurrent funding of the developments from the current AusAID project.

NGOs are deeply involved in providing training in rural areas and an extensive system of RTCs exists. Fees alone cannot sustain the RTCs, so assistance is sought from both the Government and overseas donor agencies. From 1996–1999, the United Kingdom (UK) provided salary support to individual centers and, after 1999, for the purchase of training materials. In the late 1990s, donor assistance shifted from allocations to individual RTCs to the umbrella organization, Vanuatu Rural Development and Training Centers Association (VRDTCA), in an effort to strengthen the latter's coordination and support functions. In addition to the UK, VRDTCA also received support from Oxfam New Zealand for strengthening teachers' training, developing new curricula, and restoring the cyclone damage done to some RTCs in 2004. More recently, assistance has been received from the American Peace Corps in the form of volunteer teaching and support staff.

During the past 3 years with NZAID, VRDTCA has developed and implemented a competency-based training-of-trainers manual and organized a series of in-service programs to upgrade the pedagogical skills of RTC teaching staff. The manual introduces teachers to the competency-based approach, illustrates how competency-based training programs are designed and delivered, and covers aspects of assessment and evaluation.

Vanuatu has sought to increase access to rural credit by sponsoring several credit and microfinance schemes, most of which relied on funds from external donor agencies. Two of these were the Ni-Vanuatu Small Business Development Fund (NVSBDP) and the Cooperative Development Fund (CDF), both established with a grant provided by the People's Republic of China. The former provided loans to individuals and the latter lent to village cooperatives for purposes such as procuring copra from their members and providing vehicles for transporting produce to markets. Two other credit programs were also established: (i) a pilot project by the National Bank of Vanuatu (NBV), with technical assistance from ADB, to test a rural lending scheme on the outer island of Tanna; and (ii) a UNDP-supported replication of the Grameen Bank model, known as the Vanuatu Women Development Scheme (VANWODS), which provided small loans to poor urban women and was implemented by the Ministry of Women.

During the past few years however, several government-sponsored loan schemes have closed or their remaining resources have been frozen due to poor loan management and low recovery rates because of lax approaches to the screening of applications. This is the case with both NVSBDP and CDF. The exception is VANWODS, which continues to receive support from UNDP and the Government and which is seeking to transform itself into a commercially oriented institution but still focused on the needs of disadvantaged groups.

In an attempt to develop a suitable instrument for providing increased financial services to rural populations, ADB is assisting NBV in building on the successful experience of the Tanna pilot project (which achieved a 100% loan recovery rate) and examine ways in which its lending facilities can be extended to a wider rural clientele. The advantage that the NBV has is that it already possesses a substantial outreach capability in terms of rural savings accounts, and it is now seeking to develop this into a wider range of financial services for rural populations.

An ADB skills development project is planned for Vanuatu, which will focus on enhancing the match between the demand for and supply of nonformal vocational skills training. ADB has provided, on a grant basis, technical assistance to the Government that has resulted in: (i) a survey and analysis of the vocational training needs of 22 rural communities; (ii) an assessment of the institutional strengths and weaknesses of the major training providers in rural areas; (iii) an examination of the demand and supply mismatch for nonformal skills; (iv) a survey of informal sector microenterprises; and (v) the design of a sustainable financing mechanism for funding nonformal TVET. In addition, ADB technical assistance made an important contribution to the development, in 2003, of the TVET Masterplan that identified formal and nonformal TVET priorities for the period 2003–2010 and created the framework within which various TVET providers agreed to work toward common goals.

The Ministry of Youth Development and Training is the responsible authority for coordinating nonformal skills development and has the responsibility to facilitate nonformal TVET training provided by NGOs, women, youth, and church groups. It also facilitates requests for funding from agency donors by the nonformal providers. In this context, it recently coordinated train-the-trainer workshops organized by the Life Skills Training Programme, funded by UNICEF.

Regional

Australia–Pacific Technical College

In October 2006, Australia announced funding of AU\$149.5 million for establishing and operating a new Australia–Pacific Technical College (APTC). APTC is being established in partnership with industry and Pacific island governments to produce “work-ready” Pacific island graduates to Australian standards. The project started in mid-2007 with a coordination office in Nadi, Fiji Islands and campuses progressively operational in PNG, Fiji Islands, Samoa, and Vanuatu.

Students will be self-funded, supported by an APTC scholarship, or sponsored by industry or other funding donors. It is expected that around 3,000 students will graduate in the first few years of operation. Further support will be sought from industry and donors to increase student numbers and to make effective use of Australia’s investment in APTC.

The training will be managed by the Sunshine Coast Technical and Further Education College (Queensland) for the schools of automotive, construction and electrical, and manufacturing; and Box Hill Technical and Further Education College (Melbourne) for the school of hospitality and tourism. An advisory board will be appointed and include representatives from PICs and the Australian industry. More information on the development of the APTC can be obtained from the APTC website www.aptc.edu.au from August 2007.

Pacific Regional Project for the Delivery of Basic Education

The Pacific Regional Initiatives for the Delivery of Basic Education (PRIDE) project seeks to enhance student learning across 15 PICs by strengthening the capacity of each MOE (or equivalent) to plan and deliver high-quality basic education through formal and nonformal means and to improve the coordination of donor inputs to assist countries implement their plans. PRIDE defines basic education as all education provisions for children and youth, except higher education. It includes early childhood, elementary, primary, and secondary education—together with TVET—and covers both the formal and nonformal sectors.

The project will assist countries to implement, monitor, and evaluate such plans

by way of capacity-building activities at the national and regional levels. The development of an on-line resource center will encourage sharing of best practice and experience.

The project is being implemented by the Institute of Education at USP. EU, through the European Development Fund and New Zealand through NZAID, jointly funded it. EU has signed a financing agreement with the 15 Pacific countries where it will contribute €8 million over 6 years (2004–2009) and NZAID has signed a memorandum of understanding with USP where it will contribute at least NZ\$5 million over the life of the project.

Commonwealth of Learning

The Commonwealth of Learning (COL) has assisted Pacific TVET providers through PAT-VET members. This has included developing TVET programs to be delivered by ODL as an option for TVET delivery to isolated communities and islands. The courses designed using ODL for community-based providers included the following:

- Supervisory Skills Certificate. TTI in Kiribati was helped to adapt a face-to-face course for distance delivery. The course has since been adapted by FIT and is being delivered to learners in Fiji Islands.
- Learning About Small Business. This was designed and developed at the request of education ministers who wanted to encourage entrepreneurial skills at community level, for people who were semi-literate or only literate in their own languages. Samoa Polytechnic has adapted and translated the material, and trained trainers to deliver the material in the community. A tracer study was conducted with all the organizations that used the course material in PNG and Samoa. The study shows positive results—improved knowledge of how businesses operate, experience of undertaking a learning experience with colleagues from one's community, and financial and time management skills. Vanuatu has also adapted the material.
- Tourism. Three community courses have been designed and developed with representatives from Samoa, Tonga, and Vanuatu.
- Basic Trades for Small Islands. These were requested by the Cook Islands, Kiribati, Nauru, Niue, Tokelau, and Tuvalu. Representatives from these countries met to determine the courses' content and level. Courses on working with timber and with concrete are available and are being used in-country. There are tutor and student workbooks, and videos shot by the COL multimedia centers in each kit. The last course in the series, on working with small engines (outboards, brush cutters, chainsaws), was distributed in June 2007.
- ODL Course on Literacy and Livelihood. A course to improve the level of literacy and livelihood in PNG, Solomon Islands, and Vanuatu is being developed. It will be adopted by other PATVET members.

Other important areas of COL involvement include:

- Regional cooperation—through the establishment of PATVET in 2001; and
- Capacity building—by coordinating three leadership training institutes in New Zealand with the support of NZAID and the Open Polytechnic of New Zealand to advance the knowledge and understanding of chief executive officers and other TVET providers in leadership positions, especially in ways that open and flexible learning can be used in the region. A meeting was held at the Samoa Polytechnic in Apia in 2003 with the support of COL and UNESCO to further promote the aims and objectives of TVET education in the region. COL has sponsored attachments of Pacific TVET staff to the Open Polytechnic of New Zealand, provided in-country workshops, supported staff distance learning, and has supported the establishment of multimedia centers in the Fiji Islands, Kiribati, Samoa, and Vanuatu, with equipment and training.

Appendix 6. Summary of Country Priorities and Projects

Priorities	Projects/investments
<p>Cook Islands</p> <ol style="list-style-type: none"> 1. Relevance—build in-country training capacity; 2. Quality—strengthen existing institutions and programs; 3. Organization and management—establish a coordinating committee responsible for oversight of all postsecondary education and training; and 4. Equity—remove inequities between Rarotonga and the Outer Islands. 	(not yet specified)
<p>Fiji Islands</p> <ol style="list-style-type: none"> 1. Launch institutional reforms: <ol style="list-style-type: none"> (i) National TVET coordinating body; and (ii) Costed national plans; 2. Enhance quality: <ol style="list-style-type: none"> (i) Establish a national qualification framework; (ii) Carry out quality audit of vocational programs in secondary schools, and prepare a costed strategy for quality improvement; (iii) Improve quality assurance under the FIT franchise program; and (iv) Undertake a quality audit at FIT against international benchmarks; and 3. Expand outputs: <ol style="list-style-type: none"> (i) TPAF; (ii) Training fund; (iii) Skills for generating income among rural inhabitants and the unemployed. 	<ol style="list-style-type: none"> 1. Establish a national training council; 2. Carry out quality audits of MOE, secondary schools, and FIT; 3. Expand TPAF outputs and establish a training fund; and 4. Strengthen TVET in rural areas.
<p>Kiribati</p> <ol style="list-style-type: none"> 1. Reform the JSS curriculum and build on JSS infrastructure to provide skills that will be useful to the majority of I-Kiribati for the near future; and 2. Build the capacity of TTI to provide a greater range of skills and international standard skills. 	<ol style="list-style-type: none"> 1. Enhance the infrastructure of JSS to deal effectively with education for livelihoods; 2. Enhance the infrastructure of JSS to be a resource for TVET mobile training; 3. Enhance the capacity of TTI to deliver additional areas of study; 4. Expand the overall system of skills testing; and 5. Upgrade training capacity on gender, poverty, and employment.

Priorities	Projects/investments
<i>Republic of the Marshall Islands</i> <ol style="list-style-type: none"> 1. Increase basic skills attainment; 2. Enhance TVET opportunities for women and youth; 3. Develop TVET institutional capacity; and 4. Secure financing for TVET over the long term. 	<ol style="list-style-type: none"> 1. Establish a national skills development facility; 2. Offer basic skills training for women; 3. Develop capacity development at the National Training Council; and 4. Establish a TVET trust fund.
<i>Federated States of Micronesia</i> <ol style="list-style-type: none"> 1. Consolidate T3 programs into an autonomous not-for-profit national training institute (modeled after the Training and Productivity Authority of Fiji), including the ability to mobilize resources from fees; 2. Establish a TVET council under main stakeholders that, in turn, should (i) prepare a TVET policy and action plan, and (ii) implement quality assurance, standards, accreditation, and certification; 3. Improve TVET data collection and processing; 4. Merge and consolidate College of Micronesia states' campuses and state ancillary practical training programs; and 5. Renovate TVET training facilities. 	<ol style="list-style-type: none"> 1. Establish an FNTI out of T3; 2. Establish a TVET council; 3. Develop a TVET-reform strategy and action plan; 4. Establish a TVET management information system; 5. Establish a quality assurance framework (standards, testing, accreditation, and certification); 6. Build partnerships with key TVET organizations, such as the Pacific Association of Technical and Vocational Education and Training; and 7. Strengthen financial sustainability of FNTI.
<i>Nauru</i> Nauru Secondary School to offer TVET subjects at years 8–11, including: <ol style="list-style-type: none"> 1. Introducing FIT/TPAF franchise program and class 3 certificate examination; 2. Providing for upgrading of instructor training abroad, and twinning of staff with Fiji Islands secondary schools; 3. Recruiting specialist teachers; 4. Upgrading of physical facilities and tools and equipment bought; 5. Arranging industrial attachment for vocational students; and 6. Forming a national skills development body with industry links to promote TVET and develop computerized information. 	See priorities.
<i>Papua New Guinea</i> <ol style="list-style-type: none"> 1. Expand informal sector training; 2. Develop organization and management; and 3. Improve quality, via a fund for instructor and facility development. 	<ol style="list-style-type: none"> 1. Provide integrated support services for self-employment promotion in the informal sector; 2. Build capacity for a national TVET strategic planning organization; and 3. Initiate a capital investment fund for upgrading technical and business colleges and vocational centers.

Priorities	Projects/investments
<p>Samoa</p> <ol style="list-style-type: none"> 1. Establish the Samoa Qualifications Authority; 2. Establish a national qualification framework with flexible pathways; 3. Develop a national reform plan; 4. Convert from time-based to competency-based training; 5. Mobilize additional financing for TVET through increased government financial support to by introducing a payroll levy; and 6. Expand training outputs in areas of critical shortages. 	<p>Project for Improvement of National TVET Coordination and Management:</p> <ol style="list-style-type: none"> 1. Develop and establish a national TVET coordination plan, including: <ol style="list-style-type: none"> (i) Collecting data on TVET providers; (ii) Collecting labor market surveys; and (iii) Analyzing available training in comparison to labor market needs; and (iv) Identifying priority needs of training providers; 2. Design an implementation and financing strategy for the plan.
<p>Federated States of Micronesia</p> <ol style="list-style-type: none"> 1. Consolidate T3 programs into an autonomous not-for-profit national training institute (modeled after the Training and Productivity Authority of Fiji), including the ability to mobilize resources from fees; 2. Establish a TVET council under main stakeholders that, in turn, should (i) prepare a TVET policy and action plan, and (ii) implement quality assurance, standards, accreditation, and certification; 3. Improve TVET data collection and processing; 4. Merge and consolidate College of Micronesia states' campuses and state ancillary practical training programs; and 5. Renovate TVET training facilities. 	<ol style="list-style-type: none"> 1. Establish an FNTI out of T3; 2. Establish a TVET council; 3. Develop a TVET-reform strategy and action plan; 4. Establish a TVET management information system; 5. Establish a quality assurance framework (standards, testing, accreditation, and certification); 6. Build partnerships with key TVET organizations, such as the Pacific Association of Technical and Vocational Education and Training; and 7. Strengthen financial sustainability of FNTI.
<p>Solomon Islands</p> <p><i>Coordination at the National Level</i></p> <ol style="list-style-type: none"> 1. Establish an NSTC as a parastatal body; 2. Prepare a national skills training plan; 3. Establish an NSTF/levy; and 4. Set up comprehensive and robust youth-employment schemes. <p><i>Training</i></p> <ol style="list-style-type: none"> 1. Make RTCs more attuned to employer and community needs; close programs with low-placement rates; 2. Upgrade vocational and rural training centers, strictly limiting their programs until effective monitoring and evaluation are established; and restrict them from conversion into RTCs; and 3. Establish mobile-skills training programs based at selected RTCs to support 	<ol style="list-style-type: none"> 1. Establish and strengthen a national training authority and three councils (training and productivity, quality awards, standards, and accreditation); 2. Establish and finance a skills-development fund; 3. Develop a labor market survey; 4. Develop instructor training; and 5. Provide infrastructure and training equipment to selected institutions.

Priorities	Projects/investments
<p>Solomon Islands (cont.) community projects and train youth for self-employment. <i>Private Employment Sector</i></p> <ol style="list-style-type: none"> 1. Establish a small but well-organized apprenticeship scheme, monitored and evaluated through NSTC with a partial subsidy; 2. Provide incentives under NSTF for enterprise-based training; and 3. Review and relax regulatory and oversight requirements for private training providers. <p>Note: Solomon Islands "Priorities" are based on World Bank (2007). Solomon Islands "Projects/Investments" are from the draft country report (Fakaia 2007).</p>	
<p>Tonga</p> <ol style="list-style-type: none"> 1. Relevance: eliminate skills shortages by (i) forging closer cooperation with employers, and (b) increasing flexibility in training through CBT; and 2. Quality: (i) Implement the National Qualifications and Accreditation Board system; and (b) Increasing supplies of qualified instructors. 	<p>TVET Training Council Project</p> <ol style="list-style-type: none"> 1. Develop and implement a national policy for TVET in Tonga; 2. Develop training standards; 3. Establish a national system of certification and accreditation; and 4. Establish a labor market information system.
<p>Tuvalu</p> <ol style="list-style-type: none"> 1. Raise the quality of Tuvalu Maritime Training Institute; 2. Provide skills to out-of-school youth; 3. Develop livelihood skills for adults; 4. Provide entrepreneurship skills; 5. Improve the quality of vocational subjects within secondary education; <p>In addition, Tuvalu needs to:</p> <ol style="list-style-type: none"> 6. Provide more informed direction and management of the TVET system; and 7. Mobilize additional resources for training. 	<ol style="list-style-type: none"> 1. Secure expert assistance for developing a TVET policy and plan; 2. Carry out a feasibility study on establishing community training centers to provide modular training for out-of-school youth (especially girls) and adults; 3. Develop a national vocational training center (perhaps the community training center on Funafuti); and 4. Continue and expand ad hoc in-country training as currently provided with AusAID help to the Public Works Department Training Center.
<p>Vanuatu</p> <ol style="list-style-type: none"> 1. Develop a rural training strategy; 2. Reform and strengthen RTCs; 3. Develop income-generating programs for rural adults, particularly women; 4. Develop delivery capacity for VQFs 3 and 4 through selected secondary schools; 5. Strengthen further national TVET structures (VNTC and VQF); and 6. Make more efficient use of resources that are being spent on TVET. 	See priorities 1–5.

FIT = Fiji Institute of Technology, FNTI = FSM National Training Institute, FSM = Federated States of Micronesia, JSS = junior secondary school, MOE = Ministry of Education, NSTC = national skills training council, NSTF = national skills training fund, RTC = rural training center, T3 = trades, training, and testing, TPAF = Training and Productivity Authority of Fiji, TTI = Tarawa Technical Institute, TVET = technical and vocational education and training, VNTC = Vanuatu National Training Council, VQF = Vanuatu Qualification Framework. Source: In-depth and Country Reports, 2006, 2007.

Appendix 7. Summary of Main Points from the Final Workshop

Introduction

This summary of proceedings is the account of the Workshop on “Skilling the Pacific” held in Denarau Island, Nadi of the Fiji Islands on 8–10 May 2007 as the final phase of an Asian Development Bank (ADB) regional technical assistance project, executed by the Pacific Islands forum secretariat. Over the previous year, a major study of technical and vocational education and training (TVET)¹ in the Pacific region had been undertaken. This involved studies from 13 countries, surveys of employers and employees, and a literature survey. The workshop reviewed a comprehensive synthesis report, as presented in this publication, which—it is hoped—will contribute considerably to future TVET strategies and investments in the sector, including the regional level.

Participation from the countries and regional organizations was at a very high level and involved leaders from across the Pacific. Stakeholders representing regional TVET institutions, ministries of education, nongovernment organizations (NGOs), and Pacific private sector bodies attended the workshop. Much constructive discussion took place. The interchange among participants was very good and the quality of the comments was high and offered guidance for the final report and the investment proposals (in Chapter 7 of this publication).

The workshop was planned in conjunction with the Pacific Association of Technical and Vocational Education and Training annual general meeting (AGM), which was held at the same venue on 11 May 2007. Many participants attended both the workshop and the AGM.

The following paragraphs summarize the main comments at the workshop.

Overall

- TVET is important, and becoming more so, in the region for several reasons: (i) skills development contributes to worker productivity and national competitiveness in a global economy; (ii) the increased output of students from basic education who need skills training; (iii) emigration of skilled people has created shortages and gaps in many countries of the region.
- It is important to recognize the diversity of the Pacific region. The countries are at different stages of development and have different needs.
- Consequently, the conclusions cannot be applied to all countries. There is no single model to fit all.

1 The term TVET is used interchangeably for skills development in the study.

Relevance

- TVET is a service, but it is often out of touch with its clients and its markets.
- TVET should be demand driven, but on whose demand? Employers? Individuals?
 - o Employers need to be more involved in training, as they should know best the kinds of skills required for the wage sector.
 - o However, employers often have little incentive to assist training. Their time is short and it is difficult for training authorities to get them involved. The Training and Productivity Authority of Fiji (TPAF) counters this problem by sending its staff out to enterprises, contacting more than 600 enterprises in 2006.
 - o Many employers do not know labor market needs.
 - o Individual demand for courses may not reflect country needs. For example, are TPAF courses driven by what people will pay for, or what individuals want? The Fiji Islands needs skilled workers in construction, but the highest level of demand by individuals is for automotive courses.
 - o Employers require not just skills, but also discipline/attitudes and work experience.
- Several countries of the region are experiencing “supply-chain” problems, where the output of skills does not reach or match the demand, including PNG.
- Other countries experience skills shortages because of migration—including Cook Islands, Fiji Islands, RMI, and FSM. This shows that the labor market is not just national, but international. Emigration-induced shortages often have to be met by in-migration of skilled labor from other countries (i.e., Cook Islands, RMI, and FSM).
- Some national policies also impact on skills shortages, such as lack of a minimum wage and lack of constraints in immigration.
- TVET should cover more than just the formal sector of the economy. It is also vital to train for the informal sector since that is where most people will have to be “employed” in the future. In this context, training for self-employment and livelihoods are vital.
- Communities must be consulted about their priorities for training and about traditional skills.
- An important question is: When should TVET begin? Several participants were interested in integrating TVET with general education at the secondary level and even in primary education. Some felt that this would enable students to discover their own potential and would help counter the second-class notion of TVET.

Equity

- TVET is frequently perceived as a second-class, inferior option for the less academically able students.
- Changing the mindset of parents regarding TVET and the stigma against it are needed. Some participants felt that integrating TVET early in general education, perhaps at the primary level, would help change attitudes. However, attitudes are not likely to change until the wages of vocational and technical graduates compete with white-collar workers. In New Zealand, skilled workers in trades are in such short supply that they can command wages at the level of professionals. They are called “gold-collar” rather than “blue-collar” workers.
- Gender:
 - o Females are not excluded from TVET institutions in the Pacific—e.g., Tarawa Technical Institute (TTI) and Tonga Institute of Science and Technology (TIST)—but usually choose not to attend for social reasons.
 - o Entrenched are “socially constricted views” of the work that women can do. Thus, females often cannot get jobs even if they were training in available TVET programs.
- National qualification frameworks contribute to equity through recognition of prior learning, or “recognition of current competence” obtained on the job outside TVET institutions.
- Language can be a barrier to participation in TVET, especially at the postsecondary level where English is usually the medium of instruction.
- Equity should also be analyzed in terms of access to enterprise-based training and scholarships.

Quality and Effectiveness

- One speaker defined quality as “fitness for purpose.”
- Quality is defined first by standards, which should be defined by customers, employers, and suppliers.
- Levels of quality differ by purpose, for example, an electrician in a mining enterprise or an electrician for housing.
- There is often a mismatch between the level of quality (competencies) training and that required in the labor market. For example, Cook Islands trains two- or three-star hospitality workers while the hotel industry demands five-star skills.
- TVET tends to get academically less-able students, which affects quality and attitudes.
- A key question is: Where should TVET be provided? Most learning, perhaps 90% of what is learned, is acquired on the job. This suggests that TVET may be best

delivered on the job. The second most effective place would be in institutions dedicated exclusively to training. TVET offered as part of general education tends to be less effective because of shortages of trained instructors, of funds for equipment and supplies and because the overall “ethos” of the school values academic pursuits more highly than vocational ones.

- One first priority is accreditation. Accreditation of institutions is an important tool for assuring a minimum level of quality. It is practiced mainly for private TVET institutions, but could also be applied fruitfully for public institutions. Initially, this would require systematic quality audits of the existing standards at all public institutions.

Organization and Management

The discussion was particularly rich on organization and management of TVET.

- A key question is: Where should TVET be placed organizationally? The view expressed was that education is supply oriented. In contrast, TVET is service oriented. They are not the same thing, there is a different mindset, and they should not be put in the same pool.
- Examples were given of the lack of coordination and duplication in TVET, particularly in larger countries. PNG has three different accreditation agencies and reportedly the “left hand does not know what the right is doing.” In the Fiji Islands, the three different TVET providers (i.e., Ministry of Education, TPAF, and Fiji Institute of Technology) provide training independently and sometimes duplicate offerings.
- Most issues mentioned—lack of clear mandates, lack of coordination, conflict of interest—are structural. The solution is to have a structure of TVET with clear lines of authority. The structure of TVET needs to be sorted out first before anything useful can be done. At present, mainly units within ministries of education and labor handle TVET. There is a case for raising the level of authority to an apex institution run by all the stakeholders, particularly employers and government. Training should be run like a business, which is delivering services to clients.
- Training should be based on partnerships between all stakeholders. The organizational structure should link public, private, and NGO providers and employers to achieve a common purpose.
- Sorting out the respective roles of the government or public sector in TVET is needed and that of the nongovernment or private sector.
 - o The public sector can neither do everything in TVET nor can it do everything well. Its focus should be on the things that the nongovernment sector cannot do. These include developing TVET policies, regulatory functions,

- accreditation, training instructors, collection of data on TVET, monitoring and evaluation of TVET, coordination of efforts, and financing training both for equity reasons and to narrow skills gaps.
- o The role of the private sector should be articulating needs and demands for training—what kind, what competencies, and how many; helping set standards for training; providing internships; providing complementary financing; and helping with quality assurance.
- The importance of good data to develop TVET policies was mentioned (Tonga), but this is complicated by the lack of basic information on enrollments, progression of trainees, throughput, outputs, and impact.
- Research on TVET is almost nonexistent, but two masters' theses are being or have been done on TVET at the University of the South Pacific.
- Government training institutions that have, more or less, assured budgets tend to inertia and to lack incentives for better performance, such as through monitoring, self-evaluation of outputs, and tracer studies.

Finance and Internal Efficiency

- Financing of TVET at the rate of 2–4% of MOE budgets does not match the need.
- TVET tends to be “the poor cousin” and often does not get sufficient resources (e.g., the Fiji Islands' MOE and FSM). This raises the question: Is TVET worth doing if minimum input standards cannot be financed?
- Some TVET systems suffer from disincentives for mobilizing resources, e.g., the FSM where any revenue generated by a public training institution cannot be added to the budget but must be sent to the treasury (consolidated revenue).
- Willingness of individuals to pay for training and, by extension, the income of TPAF in the Fiji Islands is facilitated by access for parents to their accounts in the Fiji National Provident Fund. Without this access, demand for courses would drop by perhaps half.
- The key question is: How to make TVET sustainable? Increasing tuition costs may help, but could reduce enrollments and discriminate against poorer segments of the population. Managers need to become proactive and use premises at night, on weekends, and during vacation periods.

Priorities

- Group 1: Land-rich, low-income countries—i.e., PNG, Solomon Islands, and Vanuatu
 - o Make training demand driven, based on industry standards. Make training

- supply flexible to respond to changes in demand.
 - o Training should not be just for the formal sector, but must prioritize the informal sector. In this context, orient training to employment and self-employment for youth.
 - o Acknowledge the importance of employer-driven standards and accreditation.
 - o It is important to involve industry in planning. Substantial policy development is needed for TVET. Industry and stakeholders in communities must inform these policies.
 - o In particular, managers of TVET systems and institutions need training for better performance.
 - o TVET systems need better accountability, monitoring, resource sharing, and multiple use of facilities.
 - o TVET institutions need capacity building to increase their sustainability.
- Group 2: Small, vulnerable island states (i.e., Kiribati, RMI, FSM, Nauru, and Tuvalu)
 - o The first priority is improving organization and management, particularly creating or strengthening apex institutions of all providers, as well as strengthening of NGO providers. TVET requires regular review, monitoring, and assessment.
 - o Socioeconomic relevance is the primary rationale for TVET. Training for livelihoods should be added, in addition to programs for the formal sector.
 - o One cannot have equity without good management and finance of TVET. Subregional centers and better delivery of modules to remote areas are needed, such as through use of information and communications technology. NGOs should be supported because they concentrate on nonformal training.
 - o Harmonizing is vital. TVET is expensive and duplication should be avoided.
- Group 3: “Advanced” island states—i.e., the Cook Islands, Fiji Islands, Palau, Samoa, and Tonga)
 - o Expand training for the formal sector, but also training for the other 70% in the informal sector.
 - o TVET should be organized based on new partnerships of all relevant stakeholders.
 - o Harmonizing is a priority. Structures and policies should be rationalized.
 - o Organizational development priorities include institutionalizing formative monitoring and evaluation.

Conclusions

- Relevance:
 - o TVET is becoming more important in the region because of burgeoning numbers of youth who need training for the informal sector. Issues include competitiveness and emigration of skilled people.
 - o Training should become more demand driven by linkages with the needs of employers, but the limitations of employers should also be recognized.
 - o Social demand for training may not be a good indicator of country priorities.
 - o Demand–supply imbalances characterize many economies in the region, both because of supply-chain problems and emigration.
 - o Training for the informal sector and self-employment resulting in improved livelihoods is a major need. However, this is being handled haphazardly and insufficient funding is devoted to it.
 - o Interest was expressed for integrating TVET into general education at the secondary and, perhaps, even primary level. This is widely practiced in the Pacific, but there is little evidence of its cost effectiveness.
- Equity:
 - o Efforts should be made to counter the stigma of TVET as a second-class option, perhaps through earlier exposure to TVET in general education and by linking TVET better to well-paying wage jobs.
- Quality:
 - o Standards are the starting point for quality, preferably expressed in terms of competencies.
 - o Customers and employers should play a major role in determining standards.
 - o Most skills development takes place on the job, not in training institutions. This underscores the importance of apprenticeships, internships, and work attachments. Institutional training is most effective when closely linked to employers or communities.
- Organization and management:
 - o TVET should be directed by partnerships of those representing the demand for skilled workers and relevant stakeholders.
 - o TVET should be elevated above ministries and managed as business/service providers in apex institutions, such as national training councils.
 - o A mental shift is needed. TVET should not be viewed as the same thing as education. TVET is providing service and it should be demand oriented and

customer focused.

- o The respective roles of government and the private sector should be clearly defined and differentiated in TVET. The government cannot do everything and the private sector needs to help. The functions of the public sector should be to develop TVET policies, carry out regulatory functions, accreditation, train instructors, collect data on TVET, monitor and evaluate TVET, coordinate efforts, and finance training both for equity reasons and to narrow skills gaps. The role of the private sector should be to articulate needs and demands for training—what kind, what competencies, and how many; help set standards for training; provide internships; provide complementary financing; and help with quality assurance.
- o Training of managers in TVET systems and institutions can have strong impact at reasonable cost. This should include capacity building to increase financial sustainability.
- Finance and internal efficiency:
 - o Substantial increased investment is needed in TVET if it is to carry out its functions and meet the social and economic requirements.

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