



United Nations
Educational, Scientific and
Cultural Organization

Education
Sector



Policy Review of TVET in Cambodia

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Cambodia

UNESCO 2013

Published in 2013 by the United Nations Educational,
Scientific and Cultural Organization
7, place de Fontenoy, 75352 Paris 07 SP, France

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The TVET policy review series is directed by Borhene Chakroun, Chief, Section for Technical and Vocational Education and Training.

The review team consisted of the following members: Borhene Chakroun from UNESCO Headquarters; Youngsup Choi, Programme Specialist from UNESCO Bangkok; and two external experts (Professors Alan Brown and Jean-Jacques Paul).

Cover photos: © UNESCO/C. Sous

Printed by: Clung Wicha Press

Printed in Thailand

TH/DOC/EPR/13/029-500

Preface

UNESCO is implementing the Strategy for Technical and Vocational Education and Training (TVET) adopted by the 181st session of its Executive Board (181 EX/Decision 8) in 2009. The strategy focuses on actions in three core areas: (i) provision of upstream policy advice and related capacity development; (ii) conceptual clarification of skills development and improvement of monitoring; and (iii) acting as a clearinghouse and informing the global TVET debate. The strategy is implemented through a range of advocacy, policy support and capacity development programmes and initiatives.

UNESCO conducts TVET policy reviews as part of dialogues with concerned governments to identify options and strategies for improving TVET policies and systems. The reviews are led by the TVET Section at UNESCO Headquarters, in close coordination with regional and field offices. In addition, the UNESCO-UNEVOC International Centre for TVET plays an important role in delivering capacity building and support.

Policy reviews aim to improve TVET policies and the TVET system in the reviewed country and to further local capacity to undertake strategic TVET policy analysis and planning that is aligned with sustainable development priorities¹. UNESCO's work emphasises the need to ensure coherence between TVET and education policies, the economy, the labour market and social needs, and it promotes TVET policies based on the principles of inclusion and social cohesion, gender equality and sustainability.

In 2010, the Government of Cambodia requested UNESCO to provide upstream policy advice to review national TVET policies. Preparatory work took place during the first months of 2011 with the following key results: (i) the establishment of focal points in the Ministry of Education, Youth and Sport (MoEYS) and in the Ministry of Labour and Technical and Vocational Education and Training (MoLVT); (ii) agreement on the analytical framework for the policy review and (iii) clarification of key steps, starting from a stocktaking mission, to policy dialogue and capacity building, validation and policy endorsement. This report provides the key findings of the policy review mission.

The mission to Cambodia was undertaken by an expert team composed of two staff from the UNESCO field office in Phnom Penh (Sun Lei and Soth Nimol), one representative from UNESCO-HQ (Borhene Chakroun), one representative of UNESCO-Bangkok (Youngsup Choi) and two external experts (Professors Alan Brown and Jean-Jacques Paul).

1 <http://unesdoc.unesco.org/images/0018/001874/187487e.pdf>

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Abbreviations

ADB:	Asian Development Bank
AFD:	Agence Française de Développement
ANER:	Adjusted Net Enrolment Ratio
ASEAN:	Association of Southeast Asian Nations
BOT:	Build-Operate-Transfer
CAMFEBA:	Cambodian Federation of Employers and Business Associations
CDG:	Career Development and Guidance
CLC:	Community Learning Centre
CKN:	Centre Kram Ngoy
CMDG:	Cambodian Millennium Development Goals
DP:	Development Plan
EFA:	Education for All
EDI:	EFA Development Index
EPDC:	Education Policy and Data Centre
ESDP:	Education Sector Development Programme
EVEP:	Elective Vocational Education Programme
FDI:	Foreign Direct Investment
DGTVET:	Directorate General TVET
DLMi:	Department of Labour Market Information
ETF:	European Training Foundation
GDP:	Gross Domestic Product
GEI:	Gender-specific EFA Index
GMAC:	Garment Manufacturers Association of Cambodia
GSP:	Generalised System of Preferences
IAG:	Industrial Advisory Groups
ICT:	Information and Communication Technologies
IFC:	International Finance Corporation
ILO:	International Labour Organization
IOM:	International Organization for Migration
ILU:	Industrial Liaison Units
ICT:	Information and Communication Technology
ITI:	Industrial Technical Institute
JICA:	Japanese International Cooperation Agency
KHR:	Cambodian Riel
LLSP:	Local Life Skills Programme
LMI:	Labour Market Information
LSS:	Lower Secondary Schools
MFN:	Most Favoured Nation
MoEYS:	Ministry of Education, Youth and Sport
MoLVT:	Ministry of Labour and Vocational Training
MoWA:	Ministry of Women's Affairs
MW:	Megawatt
NEA:	National Employment Agency
NER:	Net Enrolment Rate
NGO:	Non-Governmental Organization
NIS:	National Institute of Statistics
NQF:	National Qualifications Framework
NTB:	National Training Board
NTDP:	National TVET Development Plan
NTF:	National Training Fund

NTTI:	National Technical Training Institute
OECD:	Organization for Economic Cooperation and Development
PISA:	Programme for International Student Assessment
PFMRP:	Public Financial Management Reform Programme
PPI:	Preah Kossamak Polytechnic Institute
PSE:	Pour un Sourire d'Enfant
PTC:	Provincial Training Centre
RGC:	Royal Government of Cambodia
RQF:	Regional Qualifications Framework
RULE:	Royal University of Law and Economics
SME:	Small and Medium Enterprises
SNEC:	Supreme National Economic Council
STVET:	Strengthening Technical and Vocational Education and Training
TCO:	Total Cost of Ownership
TVET:	Technical and Vocational Education and Training
UIS:	UNESCO Institute for Statistics
UNESCO:	United Nations Educational, Scientific and Cultural Organization
UNESCO-HQ:	Headquarters of United Nations Educational, Scientific and Cultural Organization
UNEVOC:	UNESCO International Centre for Technical and Vocational Education and Training
USD:	United States Dollar
USVA:	Upper Secondary and Vocational Education for All
VSTP:	Voucher Skills Training Programme
WB:	World Bank

Executive Summary

Background and Context

This is an executive summary of the Technical and Vocational Education and Training (TVET) system policy review for Cambodia. The report responds to an invitation to UNESCO by the Government of Cambodia to conduct a review of the nation's TVET system and to engage in a policy dialogue on its future development.

The report starts with an analysis of the national socio-economic development model and the imperatives that arise for TVET. Cambodia's development model has important consequences for its education and training system. A large portion of the Cambodian economy is comprised of the informal sector and rural economic activities. However, the country is benefiting from a wave of Foreign Direct Investment (FDI) mainly through industries characterised by labour-intensive, low-skill and low-paid work (for example in the garment industry). There are critical policy challenges for TVET, both in responding to immediate needs for skills in the new industries and developing the national capacity to migrate to higher-end skills industries.

The report goes on to focus on TVET policy development. The Government of Cambodia has already embarked on a range of reform initiatives to improve education and training provision.

For instance, the five policy priorities outlined in the Government Circular on the Promotion of Quality and Effective Technical and Vocational Education and Training from the Prime Minister in February 2011 provides an important framework for: (i) linking training to market demand; (ii) ensuring training quality for enhanced productivity; (iii) strengthening public-private partnership; (iv) ensuring equity in training; and (v) promoting TVET for social-economic development.

Policy Recommendations

The policy review team commends the Government for its considerable efforts. The team, however, has identified eight main areas for further reforms and policy dialogue which are required on top of current efforts:

1. Meeting the imperative for national coordination

1) Key finding and challenges

The absence of continuous coordination and a strong and consistent sectoral approach is hampering institutional progress in key areas. These include identification of skills needs, provision and supervision of non-formal TVET, enhancing the relationship between TVET and general secondary education and organization and delivery of vocational orientation.

The National Training Board (NTB) is the over-arching body with a legal mandate to develop TVET policies and ensure coordination among ministerial departments and social partners. However, in practice the NTB has both policy-setting and oversight responsibilities such as validation of occupation and TVET, as well as accreditation rules, and the oversight over the national employment agency, etc.

2) Areas of policy action

The need for fundamental change in the governance of Cambodian TVET has been a consistent theme for more than a decade. Specifically, there is a need for greater clarity of the roles of different stakeholders and the development of a coordinated system of education and training. The responsibility of each ministry, specifically MoLVT and MoYES, in terms of provision, supervision and funding of TVET should be better defined.

Steps need to be taken to achieve a more effective balance between NTB policy mandate and the necessary oversight function such as quality assurance, qualifications, certification and funding.

2. Building stronger public-private partnerships

1) Key findings and challenges

There has been a long tradition of supply-driven approaches in TVET and, in general, there are weak links between TVET institutions and enterprises. Actors on both the supply (government) and demand side (employers) need to adapt to the need for new approaches.

However, there is evidence of increasing effort being made by public stakeholders to engage the private sector and, specifically, employers' representatives, in TVET dialogue.

There are some examples of good practice: for instance, the National Polytechnic Institute of Cambodia collaborates with employers on defining skill development needs in order to inform curriculum development. The polytechnic also creates individual development plans for interns and new employees.

There are also important initiatives to develop curricula in partnership with enterprises as part of the Asian Development Bank (ADB) project "Strengthening Technical Vocational Education and Training (STVET)" which aims at supporting the Government's strategies to reduce poverty and achieve socio-economic development for all Cambodians through: (i) promotion of vocational and skills training to ensure continuing improvement in national productivity; (ii) creation of jobs in the formal and non-formal sectors; (iii) an increase in agricultural productivity to create jobs in rural areas; and (iv) the establishment of technical vocational education and training (TVET) networks to assist both men and women, especially the poor, disabled and vulnerable, to respond to labour market needs". More specifically, the STVET project is supporting the Government's socio-economic development program through provision of an industry-endorsed TVET system which is aligned with the basic and middle level skills requirements of the formal and informal economies in the three industry sectors, namely: mechanics, construction and business services and ICT.

In addition, Industrial Advisory Groups (IAGs) have been constituted for the three priority sectors of construction, mechanics and ICT/business. Expert workers from the private sector are members of the IAGs and are involved in every stage of review and validations of competency standards, competency-based curriculum. They are also expected to continue to be involved in critical stages in the future.

Furthermore, Industrial Liaison Units (ILU) have been set up in all Provincial Training Centres (PTCs) to interact with the private sector. These units are expected to be more active in the future.

2) Areas of policy action

There is a need to build up employer engagement and trust at many different levels within the TVET system including governance and funding, management and delivery, qualifications, curricula design, assessment and certification. Engaging employers in the governance can be further enhanced at the national level, through the NTB by the establishment of sectoral councils. Employers can be engaged regionally or at the level of individual institutions, for example through representation at TVET institution governance. IAGs could have a more strategic role in identifying sector-based strategies for skills development and funding. They can also be involved in organizing workplace learning and assessment.

There is also a need to strengthen the role of employer associations and build their institutional capacity to participate in TVET. Good practices mentioned in this report, such as the collaboration between the National Polytechnic Institute of Cambodia and enterprises as well as the establishment of Industrial Liaison Units (ILU), should be more widely shared with education and training providers who have poorly developed links with employers. Here the role of the National Technical Training Institute (NTTI) can be crucial by acting as a clearing house and facilitating peer learning, knowledge sharing and informing decision making.

Smaller employers are often reluctant to engage with education and training provision in any capacity. An initial focus on business improvement may be one way to raise their interest. Skills development may be seen as a second-order issue, but an important one nonetheless. Skills upgrading is already being carried out in the garment industry, with plans to move up the value chain. The opening up of the ASEAN common market in 2015 could give added impetus to such an approach.

Actions should also cover the informal sector and rural economic activities. Further work, partnership and dialogue on the role and effectiveness of community-driven skills development would be of great importance for the viability of TVET provision in these settings.

3. Improve the quality of teaching and learning processes

1) Key findings and challenges

A range of initiatives are underway in relation to curriculum reform and teacher training:

- The MoEYS is now concerned with implementing reform of the upper secondary curriculum. However, challenges include insufficient innovative pedagogical approaches, an absence of a comprehensive assessment of the total cost of the new curriculum and the costs of delivering it in terms of facilities and infrastructure (including in the Resources Centres). In addition, it appears that there is no clear strategy for evaluation of curricula implementation.
- The MoLVT is also developing and implementing competency-based curricula in the framework of the STVET project. Competency-based standards, competency-based curriculum and learning packages for 11 job positions (4 in construction, 3 in mechanics and 4 in ICT/Business) across 3 levels have been completed. The challenge is now related to their cost-effective implementation and monitoring and evaluation of impact.

- The MoLVT is not considering the affordability of the curricula developed. More important, although the NTTI is supposed to become the institutional home for the curricula design function, the discussion with its management shows that it is not in the driving seat and that the capacity development in curricula design as supported by ADB project is outside of the institution. The fact that the design of the curriculum is led from outside the NTTI reduces the sustainability of the curriculum development processes. However, sector-based capacities for curricula development are now available in the three institutions involved in the ADB funded STVET project namely Preah Kossamak, Polytechnic Institute (PPI), Industrial Technical Institute (ITI) and National Institute of Business (NIB) which were designated National Centres of Competence for construction, mechanics and ICT/Business.
- The NTTI is clearly busy with pre-service teacher training, along with managing the provision of initial TVET at post-secondary level. For instance, neither the capacity nor the expertise is available to support the upgrade of TVET institutions, action-research or labour market analysis. Finally, NTTI does not have in its mandate the requirement to support TVET institutions in improving their service delivery. However, its actions on the ground, mainly through monitoring visits to evaluate the performance of its teacher graduates and to collect feedback, signal better connections with the development in TVET institution and should improve the quality of its training programmes.
- The Quality Assurance and Monitoring and Evaluation Frameworks with 6 performance criteria and 35 performance sub-criteria have been approved by NTB and the self-assessment and quality audits will be undertaken. However, a self-assessment process not associated with an upgrading process will be sterile in triggering quality changes.

2) Areas of policy action

Important areas of policy action for the Government are curricula reform and quality assurance of programmes and institutions.

The ADB STVET programme has launched an innovative model to develop curricula relevant to labour market needs. However, to ensure ownership and sustainability, curricula development function should be located at the NTTI and should further involve enterprises' representatives.

A cost-effective curricula implementation plan including a clear strategy for monitoring and evaluation should be established and led by NTTI. Curricula implementation process should go hand-in-hand with a TVET institutions upgrading process aimed at changing their management and organization model while reinforcing their infrastructure and equipment.

There have been appreciable attempts to reinforce the role of the NTTI. There is, however, a need to align the NTTI mandate with the needs of TVET institutions and providers such as support for implementation of new curricula, introduction of new pedagogical approach for teaching-learning and assessment as a consequence of the introduction of competency-based approach.

At the same time, new curricula cannot be implemented without the full commitment and wide involvement of teachers and trainers. TVET policies should, therefore, include teacher career management including pre-service, induction and in-service training and measures to reinforce the capacity of vocational institutions to support their teachers and trainers in order to gain their interest and adherence.

4. Building flexible TVET and improve career guidance

1) Key findings and challenges

The review identified key issues related to the absence of flexible learning pathways and coherent approaches for career guidance, vocational orientation and counselling.

Guidance and counselling for individuals is uncoordinated and does not yet provide relevant information for career options, prospects and alternatives. The efforts undertaken within the Ministry of Labour and the important role played by the employment agency are not connected with the efforts of the Ministry of Education. Support to learners at all major choice points throughout education and training is lacking. For Cambodia it is important to encourage people to consider switching jobs as opportunities to open up in new industries.

The on-going work on a National Qualifications Framework (NQF) under NTB has the potential to contribute to TVET reform and to build a flexible TVET system. It has also a potential to contribute to raising the status and attractiveness of TVET qualifications and to facilitate coordination across education sectors and departments. For instance, the Cambodian NQF is designed with an aim to allow for flexible, transparent and systematic learning pathways, recognition of experiential and prior learning and the removal of boundaries among educational sectors.

However, the NQF development process lacked broad consultation and coordination across departments and deep involvement of employer and union organizations. Hence, the recent approval of the NQF should be considered as a starting point for further consultation on its gradual implementation with stakeholders within the Ministry of Labour, across other ministries especially the MoE, training institutions, as well as with employers' and employees' representatives.

2) Areas of action

The current strategy of providing career guidance, starting at a relatively low level, with the provision of advice about labour market trends and initial contacts with employers about skills they need is a good base from which to expand provision. Encouraging individuals to think about their own skill sets is itself a valuable aspect of taking control of their own learning and development. It will also help them to be adaptable when faced by changes in the labour market and opportunities open up to them.

More substantive careers guidance could also help to make the labour market more effective as well as expanding access to opportunities for young people. The reforms required to support vocational orientation classes in education and more substantive careers guidance as outlined above can be progressively developed. Vocational orientation discussions could be held within the framework of life-skills lessons. Teachers could be provided with support materials which outline broad skills profiles underpinning different groups of jobs and helped to start discussions about what skills may help individuals progress from one type of job to another.

As mentioned earlier, the NQF has now been developed and adopted by the Government. Further details regarding its functioning should be defined in cooperation with stakeholders from the world of work and experts with an understanding of emerging labour market needs. Moreover, emphasis should be on its gradual implementation and the role each stakeholder should individually and collectively play in its successful implementation.

From a broad education and training system perspective, NQFs should facilitate system-wide reforms and increase the involvement of stakeholders in the development of qualifications, resulting in an education and training system that is more responsive to the needs of labour markets and individuals. However, NQF will be ineffective in driving education and training reforms if it is not complemented by policy measures to change the learning process and institutional arrangements, e.g. vocational institution leadership, teacher training, governance and social partner roles and responsibilities. Taking this approach gives value to partnerships and provides more power to stakeholders and organizations that produce, allocate and use qualifications.

In the context of Cambodia, not all providers can comply ‘immediately’ with national standards. The introduction of a NQF and related quality assurance mechanisms will require substantial support to upgrade TVET providers and improve the quality of TVET provision to meet the standards. There should be a direct link, and a clear plan, between NQF and support to TVET institutions, both public and private, to improve the quality and relevance of their programmes and to help them comply with qualifications and quality assurance requirements. All this requires a set of planning actions related to resource mobilization, both in terms of government allocation of public budgets and the distribution between publicly funded and privately funded investments and recurrent costs. Among Provincial Training Centres (PTC) and the institutes, several will be upgraded in coming years, mainly through the support of donors (ADB, Qatar Foundation, etc.). Those institutions might be ready for accreditation. Others, including those in the private sector, are not and will need greater support to meet the required quality levels.

The focus on qualifications and how they are related could increase the flexibility of learning and career pathways. The main assumption is that there are more pathways possible to a single qualification. This has important consequences for the flexibility of learning and may also have cost-saving effects. Related to this is the development of systems for validation of non-formal and informal learning that can facilitate access to learning for people, more particularly workers.

5. Providing sustainable financial resources for quality and expansion of TVET

1) Key findings and challenges

Confronted by budgetary pressures, the Cambodian Government continues to find it difficult to provide adequate, stable financing for public TVET institutions and skills development in general. (An exception is the Prime Minister’s Special Fund, developed as a response to the global economic crisis, which prioritised support for the recently unemployed and out-of-work youth.)

The low level of resources allocated to TVET to support both formal and non-formal, as well as initial and continuing vocational learning in schools, Provincial Training Centres (PTCs), Community Learning Centres (CLCs), enterprises, etc. is a crucial policy issue. There is a need for a deep dialogue on how to secure sustainable resources for the TVET system now and in the future.

2) Areas of action

From the discussion with national stakeholders, and taking into account international experience in this field, three broad options could be envisaged, discussed and decided upon:

Maintain the status quo: Adding more expectations to an over-stretched and under-funded system is neither appropriate nor affordable, given Cambodia's plans for future economic development. The cost of continuing to provide relatively low quality TVET, much of it on a small scale, would be too great.

Rely further on international funding: Both the MoEYS and the MoLVT are relying heavily on international institution-based support for upgrading and maintaining TVET institutions. This is not sustainable in the mid-term perspective because key donors such as the ADB, the World Bank and the French Development Agency (AFD) are looking for sustainable changes. Moreover, this approach is not systemic and neglects other providers such as NGOs and private TVET institutes.

Set-up a new source of funding and improve efficiency: This could be achieved through deliberate and phased unlocking of the potential of enterprises' contribution to TVET through the development of new policy instruments, for example a payroll levy for formal enterprises. This seems to be broadly accepted by employers, under certain conditions such as clarity of long-term goals and consistency of means to reach them, and involvement of social partners in the governance and management of allocation and use of the resources. The MoLVT planned policy study on "Future Directions of TVET and TVET Financing" should inform decision making regarding this policy issue. Moreover, this policy review (UNESCO) adds a 'sensitivity analysis' for estimation of the potential revenue from a payroll levy, based on international experience.

6. Developing workplace learning

1) Key findings and challenges

Apprenticeship is defined and regulated by the Cambodian labour law. In practice, however, apprenticeship is not regulated in Cambodia. In construction, engineering and other craft sectors, basic competencies are learned on the job through informal apprenticeship without, but without any contractual arrangement. In the formal sector, apprentices are seldom recruited.

At present in Cambodia, there is a growing demand for work-based experiences to be included and integrated in post-secondary education, for example in polytechnics, the NTTI or at university. These experiences are now seen as being essential to develop the kinds of skills required for entry into occupations sought after by students.

The Voucher Skills Training Programme (VSTP), supported by ADB, assists training programmes managed mainly by public PTCs. VSTP uses workplace and community potential for skills development. The data from the VSTP points also to workplace learning as a less costly option than school-based training.

Some enterprises such as ACLEDA seem to be more aware of this issue than TVET providers. And some NGOs such as Centre Kram Ngoy (CKN) and Pour un Sourire d'Enfant (PSE) are using the workplace as an important component of the learning process.

However, all these initiatives are not followed by bold policy actions to enhance the quality and expand the workplace learning opportunities, particularly through apprenticeship which benefits already from a legal basis. Current Government approaches do not engage significantly with learning in the workplace or learning through work activities. Such activities are most often described briefly as 'informal' or linked to 'internships'.

2) Areas of actions

There is a clear need for policy to support the better use of workplace learning, particularly through apprenticeships. Active policy response can expand and improve functioning, quality and relevance of workplace learning, particularly by focusing on the demand side (enterprises).

If apprenticeship is to expand, it is important to have the appropriate regulatory, financing and governance systems in place that involve employers and trade unions in the planning and operation of apprenticeships. However, involvement in planning and managing apprenticeships is more likely when social partners, such as employers and employee organization feel their voice is respected and that they have a real influence upon decision-making. Several issues have to be discussed before moving ahead with the apprenticeship policy. These include the expected contribution of enterprises, the regulatory role of NTB and the role of PTCs. The above mentioned policy option for sustainable financing of TVET could, among others, have an important impact on workplace learning development.

7. Connecting school with work and continuing the discussion on options for vocationalization of secondary education

1) Key findings and challenges

Cambodia's entire education system is facing serious pressure. If current trends persist, enrolment at the secondary level is projected to double by 2020. Cambodian educational leaders are concerned about the situation of young people finishing primary and secondary education without learning skills linked to the world of work. Their key argument concerns 'economic relevance', i.e. there is a perception that occupational skills are needed to ease the transition to the world of work.

There is room for debate around the desirability of developing occupational skills related to particular current jobs or addressing the development of broader skill sets which can be applied in a wider range of settings. Put another way, the debate is about whether to support the current low skills equilibrium or to seek to develop individuals who could undertake a wider range of jobs.

The report analysis shows that while the short-term focus can be on the development of quality short-term skills programmes, it will also be important to address the longer-term need for higher level skills development.

The report suggests that plans to develop a vocational education pathway within schools may not be so urgent. Demand for intermediate skills is picking up, but only slowly. Current supply is sufficient, especially as de facto current vacancies are being filled by candidates with technical higher education (or technical or vocational upper secondary). However, in the future it will be important to have a strong intermediate skills base as part of a balanced, diversified and growing economy.

2) Areas of actions

National stakeholders need to start thinking about higher skills development and to explore the possible role for an upper secondary vocational stream, including pathways to post-secondary education. This avenue does not need to be rushed, however, given its resource-intensive nature.

Setting up a new stream and getting new graduates would require at least five years to develop. In this case, the government might consider the following actions:

- Connect general secondary education with the world of work through developing learners' problem-solving capacities communication, inter-personal, entrepreneurial capabilities and other skills they need to be able to adapt to different work environments and, thereby, improve their chances of accessing gainful employment;
- Support more substantive careers guidance that can be progressively developed at different points of the education system;
- Implement and evaluate a few pilot projects to learn from experience before fully committing to this route, especially given the low completion rates from the few existing vocational streams in upper secondary education.

From a policy perspective, the big mid-term challenge is to promote a shift in thinking whereby the focus is upon skill sets and training required to help individuals move through the labour market and achieve their vocational goals. Managing the transition from old to new ways will require leadership and experimentation. Other countries have found it useful to trial innovations before they are more widely adopted.

Current discussion regarding the vocationalization of general secondary education illustrates the problems of policy coordination. It is vital to achieve coherent systems of education and training for youth.

8. Meeting the social equity agenda by focusing on quality of training provision for poor youth in urban and rural areas

1) Key findings and challenges

The situation is critical for poor youth from both urban and rural areas. For instance, 90 per cent of urban poor youth and 82 per cent of those living in rural areas have not completed lower secondary education, compared with 31 per cent of urban rich youth.

The Government has already embarked on a range of initiatives to improve access and equity. The policy agenda already includes incentives, for example through community-based learning schemes and equity training funds such as the VSTP. However, in addition to access, the key policy issue is to improve the quality of provision and monitor and evaluate impact of programmes.

2) Areas of action

It may be appropriate to review, strengthen and enhance the quality assurance of the range of training programmes targeting youth. This should happen alongside efforts to enhance capacities for planning, management and monitoring of training needs assessment and delivery. In this context, rural TVET programmes face particular operational problems, such as access to facilities, materials and trained teachers. These problems can only be effectively tackled through better partnership, collaboration and co-ordination between provincial and local levels.

Part 1: Context

This section provides a summary of information about Cambodia's population, economy and labour market system. In particular, the section considers Cambodia's development model, its rectangular economic development plan, and the imperatives and expectations that arise for TVET. The section also examines factors driving the demand for skills from the productive sector.

1.1 The National Socio-Economic Context

1.1.1 Demographic trends

Cambodia is a country of 181,035 square kilometers which shares borders with Thailand, Viet Nam and Lao PDR. A total of 76 per cent of the population live in rural areas where the main occupations relate to agricultural activities. The predominant regions for wet rice cultivation are within the densely populated plain around the Tonle Sap (Great Lake) and along the Mekong River and its ramifications. Phnom Penh, the capital of the country, had 1.3 million inhabitants in the census of 2008. The city's population is growing faster than the rest of the country, due to inwards migration of young people attracted by work opportunities. Other urban centres such as Battambang, Siem Reap and Sihanoukville are also seeing population increases due to migration. There are also migrations from the populous central provinces to the north-western and north-eastern provinces, due to the development of rubber cultivation.

According to the National Institute of Statistics (NIS), the total population was estimated at 14.7 million inhabitants in 2011. A total of 32.2 per cent of the population is under the age of 15 years. There are 4.9 million females between the ages of 15 and 65 and 4.5 million males in the same age range. The difference in numbers between females and males is a lasting consequence of the Khmer Rouge regime, under which more men died. Another dramatic consequence of the regime was the loss of generations of skilled educators and workers and the disintegration of the education and training system.

The demographic transition has not ended. The annual population growth is estimated at around 1.5 to 2 per cent. In 2012, it was estimated that there were between 355,000 and 370,000 young people aged between 14 and 18 years. This gives an idea of size of the new labour force and the potential demand for TVET.

Noticeable achievements have been made in improving access to education. The Primary Net Enrolment Rate (NER) was 95.3 per cent for rural areas, 92.2 per cent for urban areas and 90.3 per cent for remote areas, and is on track to achieve the 2015 Cambodian Millennium Development Goal (CMDG) targets. NER in lower secondary schools (LSS) remains modest at an average of 31.9 per cent. There are sharp interprovincial discrepancies, with an NER in LSS close to 60 per cent in Phnom Penh and less than 20 per cent in the peripheral provinces of Ratanakiri, Mondulakiri, Odar Meanchey, Preah Vihear, Stung Treng, and Pailin. Except for Ratanakiri, there are practically no regional disparities in the Gender Parity Index (ratio of female to male net enrolment rate). This remarkable result was achieved by a systematic focus on training and deploying female teachers who serve as a role model for young girls. For instance, the percentage of female teachers at primary level reached 46 per cent of the total in 2009–10.

Regarding progress in adult literacy, the Millennium Development Goals report (Ministry of Planning 2011) states that not enough is being done to improve the literacy of adult women (25–44 year olds), which is lagging below target, with a 0.86 ratio of literate females to males aged 25–44 years in 2008. This has an impact on women's employment, rights, health, and ability to negotiate safe sex, as well as on the education and health of their daughters.

1.1.2 Social indicators

The proportion of the population below the poverty line decreased from 50 per cent in mid-1990 to 27 per cent today (the poverty line corresponds to the cost of purchasing 2100 calories per person per day; USD0.61 in 2007). Poverty is concentrated in inland rural areas, with highest poverty rates in the provinces of Preah Vihear, Ratanakiri, Stung Treng, Kratie and Monduliri. As in most developing countries, inequalities have increased with economic growth. The Gini coefficient rose from 0.39 in 2004 to 0.43 in 2007 (WB, Sustaining Rapid Growth). According to a World Bank study on sharing growth, equity and development in Cambodia (World Bank, 2007) during the period 1994–2004, growth and rising living standards have benefited the poor in urban areas more than in rural areas.

Infant mortality has strongly decreased, from 95 deaths per 1,000 live births in 2000 to 60 deaths per 1,000 live births in 2008. Under-five mortality has decreased from 124 deaths per 1,000 live births in 2000 to 83 deaths per 1,000 live births in 2005. Both indicators are projected to far exceed the 2015 CMDG targets. However, a major concern exists regarding the persistent high level of maternal mortality, which currently stands at 461 deaths per 100,000 live births, among the highest in the region, and which has not changed significantly since 1997. There has been a significant decrease in HIV prevalence, from 1.6 per cent in 2000 to 0.7 per cent for 2009.

1.1.3 Macroeconomic performance

Cambodia is still considered a Least Developed Country, with a total Gross Domestic Product (GDP) of USD11,344 million (2010) and a GDP per capita of USD830 (2010). The average growth for the last decade has been 9.3 per cent, which classifies Cambodia as within the most dynamic countries in the world. A pause in growth due to the world economic crisis has given way to a new period of growth (5.5 per cent in 2010 and an estimated 6 per cent for 2011). Cambodian authorities consider that if the growth rate could be maintained at its present level, Cambodia will reach lower middle income status in the next 5–10 years. However, the international economic crisis seriously affected the apparel industry (production at constant prices declined by 9 per cent in 2009), highlighting the fragility of an economy which is not sufficiently diversified.

Public and private investment has also recovered in recent years. In 2010, total investment represented 24.1 per cent of GDP (+14 per cent in relation to 2009) and this tendency seems to have continued in 2011. Public investment represents 6.9 per cent of GDP and still depends heavily on external aid (77 per cent of the total public investment comes from external sources and 23 per cent from domestic sources). The strong private investment (17.1 per cent of GDP) confirms the trust of external and local investors in the future economic perspective for Cambodia (31 per cent of the investment is FDI and 69 per cent is domestic).

On the fiscal front, the Cambodian authorities are trying to expand the tax base and the effectiveness of tax collection. Tax revenue represented 7.2 per cent of GDP in 2001; and 10.2 per cent in 2010. There is still room for an increase of tax revenue. According to World Bank data on tax revenues, as a percentage of GDP in 2009, the value for Cambodia was 9.6 per cent, which can be compared with 12.5 per cent for Lao PDR, 15.1 per cent for Thailand and 15.7 per cent for Malaysia.

1.1.4 Development plans and economic performance

Public policies

The official economic policy relies on what it is called the 'Rectangular Strategy' which aims at strengthening four major pillars of economic and social development: agriculture, physical infrastructure, private sector and employment, and human resources. Good governance is at the heart of the strategy and constitutes a prerequisite for achieving the four main goals.

Public and sectoral policies aim at boosting growth through the development of human resources, the development of agriculture, the diversification of tourism (from cultural tourism to seaside tourism) and the promotion of processing industries and other new industries. Efforts are being made to enhance physical infrastructure (roads, bridges, rails, irrigation, power supply and transmission lines). The private sector is associated with the development of public infrastructure, through Build-Operate-Transfer (BOT) operations.

The government responded to the global economic crisis by producing a National Strategic Development Plan Update for 2009–2013. It placed a high priority on the following strategic approaches:

- Diversify the markets for garments and other manufactured goods market to East Asia, the Middle East, Africa and others;
- Improve tourism infrastructure and develop more tourism destinations and attractive tour packages;
- Prioritise the use of resources and expertise of the Government and donors to broaden and diversify the agricultural sector, in order to attract more quality investments in agri-business and improve agricultural trade linkages, land reform, agricultural diversification and agro-processing;
- Further invest in infrastructure development, particularly energy generation, to reduce energy costs to the private sector and to the community;
- Continue to promote and support wealth creation and improving livelihoods.

In addition, the Government's Financial Management Reform Programme (PFRMP, 2004–2015) aims to strengthen economic and public financial management while establishing good governance systems through four platforms.

Economic performance

Several features characterise the Cambodian economy at present. First, the structure of the GDP reflects the situation of a developing country with a large share coming from agriculture (37 per cent in 2010) (see Table 1).

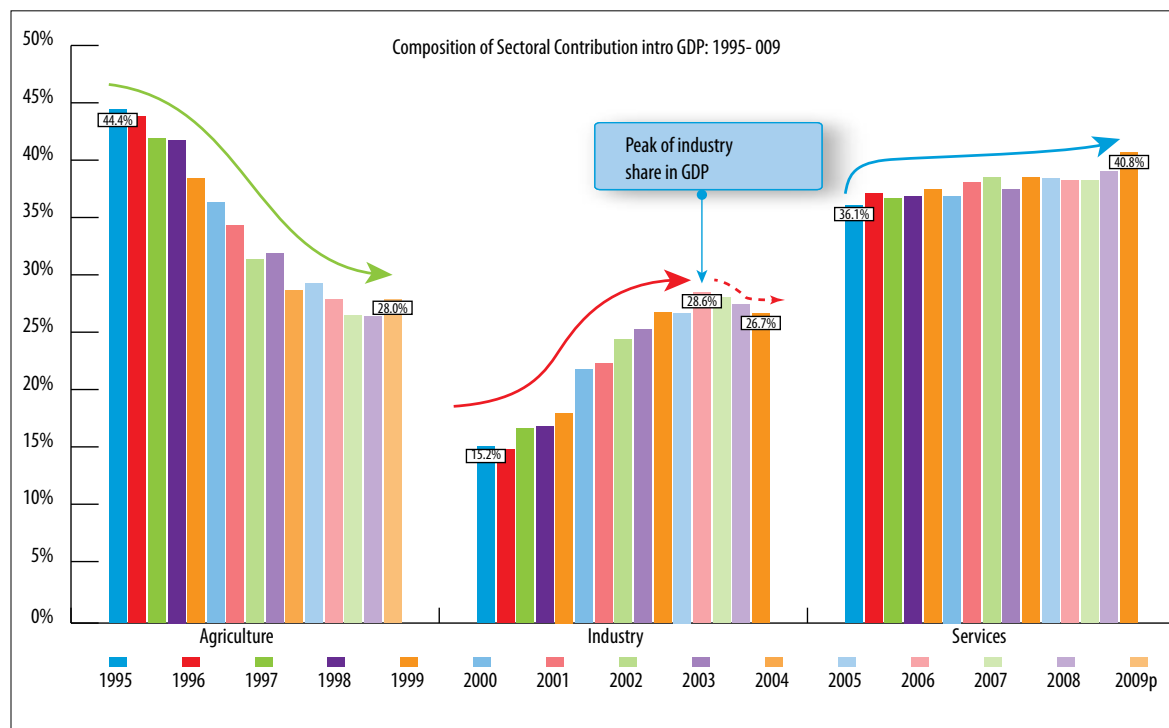
Table 1: GDP by sector of activity

	2001	2005	2010
Agriculture	36%	32%	37%
Industry	23%	26%	21%
Services	40%	41%	42%
Total	100%	100%	100%

Source: Cambodia Macroeconomic Framework 2000–11, Ministry of Economy and Finance.

The second feature is that the composition of the sectoral contribution to GDP has changed gradually throughout the 1995–2009 period, reflecting a certain level of diversification (see Chart 1: Sectoral contribution to GDP). The contribution of agriculture to total income is slowly falling, while manufacturing activities have begun to rise. Although the share of agriculture in GDP is still rather high at an average of around 34 per cent, it has steadily declined from 44 per cent in 1995 to 28 per cent in 2009. The share of industry increased from 15 per cent in 1995 to reach a peak of 28.6 per cent in 2006, slowing to 26.7 per cent in 2009. The share of the services sector expanded from around 36 per cent to 41 per cent of GDP during the same period (source: The Royal Government's Industrial Development Action Plan).

Chart 1: Sectoral contribution to GDP



Source: Supreme National Economic Council, (SNEC).

The third feature emphasises the potential areas of growth and competitiveness of agriculture. Agricultural productivity is still low. Most paddy is exported to Viet Nam and Thailand to be transformed into rice. The Government has an objective to develop internal capacity to mill rice for quality processing and to increase rice exports. Such a policy aims at retaining in Cambodia a larger part of the added value linked to the process of transformation from paddy to rice (the official goal is to reach an export of 1 million tons of rice in 2015, compared to 30,000 tons in 2010). This supposes huge investment in well-equipped rice mills, and semi-skilled and skilled manpower to run the new mills and to support export processes. Agriculture is also diversifying. There is a boom in rubber cultivation in the east of the country, due to the increase of the international price of rubber (in early 2013 more than USD5,000 per ton compared to USD500 per ton in 2005). This requires low-skilled workers to tap rubber trees. The evolution to internally transform latex into coagulated latex and later into industrial products (such as tyres) will require qualified workers.

Other increasing production activities include the production of cassava (its transformation into ethanol requires semi-skilled and skilled manpower), sugar cane, palm oil and corn. The production of poultry, fruits and vegetables will also increase, in order to decrease imports from Thailand and Viet Nam and to cater to increased demand by local consumers and the hospitality

industry. Enhanced qualifications will be required for production, procession, packaging and distribution of the products.

The fourth feature covers forthcoming development in other primary activities such as mining and petrol exploration and exploitation. Electricity is a major concern for Cambodian authorities since its price is higher than in neighbouring countries, hampering the competitiveness of local industry. This is why an effort is being made to produce cheaper electricity and to decrease imports of electricity. Chinese investors have been mobilised for this purpose. A coal power plant is being constructed in Sihanoukville. Five hydroelectric plants are being constructed and another eight are planned and under study. These plants, together with the expanded network of distribution of electricity, will require specialised manpower. It will be necessary to attend a growing demand of electricity estimated at 2,400 MW in 2025 (compared with 500 MW in 2010).

A fifth important feature is the growing role of the manufacturing sector. The garment industry has boomed, particularly after the United States imposed quotas on Chinese garments and in response, Chinese companies relocated some of their factories. This segment suffered dramatically from the world financial crisis, but it is renewing growth. Garment sector exports reached USD2.9 billion in 2010 (87 per cent of exports GSP/MFN, + 28 per cent compared to 2009, with 319,942 workers employed in January 2011). A total of 263 factories were working in January 2011. The president of the Garment Manufacturer's Association of Cambodia (GMAC) declared in May 2011 that the industry is facing a lack of available buildings and there is a demand for new factories. Since all the raw materials are imported, one of the aims of the sector would be to produce textiles internally. The increase of salaries in China stimulates Chinese garment companies to substitute Cambodian middle-managers for Chinese ones. A training programme of Cambodian workers is being developed with this objective. The shoes sector has also grown recently (36 factories in January 2011, 38 in March, 56,420 workers in January 2011, +5,467 within a period of three months).

Cambodian authorities also want to expand manufacturing and services in ICT by offering outsourcing opportunities for companies from developed countries. The Japanese Minebea company, a precision component manufacturer, began to construct a new plant in the Special Economic Zone of Phnom Penh (investment of USD60 million), which was due to employ up to 900 staff at the end of 2011 and up to 5,000 employees later on. The Korean vehicle manufacturer Hyundai has constructed a factory in the Special Economic Zone of Koh Kong, close to the south-west Thai border.

A final feature is the services sector, including the tourism and financial sectors. Tourism represents a pillar of Cambodian growth and is an important supplier of foreign currency. Visitor numbers have risen to about 2.5 million visitors a year (a rise of 16 per cent over figures for 2009). Siem Reap is the main destination but Cambodian authorities also intend to develop tourism activities in other locations, particularly along the coast. Banking, finance and insurance also have great potential growth. Bank deposits represented USD345 million in 2000, USD914 million in 2005 and USD4,030 million in 2010. In January 2011, there were 36 banks and more than 100 micro-finance institutions. The Cambodian stock exchange opened in July 2011, which will boost the finance sector. The market for insurance is just taking off, and received a boost with the introduction of compulsory insurance for cars and motorbikes from January 2012.

1.1.5 Constraints on private sector development

According to Doing Business 2011 prepared by the International Finance Corporation (IFC), Cambodia is ranked 147 out of 183 economies. This rather low ranking is mainly due to the cost and length of the process of starting a business (170/183 for this indicator), the time for dealing with a construction permit (146/183), the difficulty to enforce contracts (142/183) and to register property (117/183). Cambodia is better ranked on other criteria such as paying taxes (57/183) and protecting investors (74/183) (See Table 2).

Table 2: Cambodia's Doing Business Rankings 2010 and 2011

Topic Rankings	DB 2011 Rank	DB 2010 Rank	Change in Rank
Starting a Business	170	172	▲2
Dealing with Construction Permits	146	146	Nochange
Registering Property	117	120	▲3
Getting Credit	89	87	▼2
Protecting Investors	74	73	▼1
Paying Taxes	57	58	▲1
Trading Across Borders	118	126	▲8
Enforcing Contracts	142	140	▼2
Closing a Business	183	183	No change

Source: IFC: www.doingbusiness.org

According to the World Bank (2009), a major issue for business is the cost of coordination and the risk of appropriation of returns (because of the risks in the environment or because of official or unofficial taxation). Another major constraint for private sector development relates to the shortage of skilled and even unskilled workers.

1.2 The Labour Market

Labour force participation in Cambodia, as in most low income countries, is high (84 per cent in 2009). Paid employees account for only 27 per cent of the workforce, while the remainder are split roughly equally between self-employment and unpaid family labour. This means that a maximum of 27 per cent of the workforce is employed by the formal sector.

Due to demographic expansion from the beginning of the 1980s, the labour force has dramatically increased, from 5.1 million in 1998 to 7.1 million in 2008. Over the period 2001–2008, economic growth has generated enough jobs to meet the increase of the working-age population. Except for agriculture, most sectors have created jobs. Construction almost tripled the number of jobs and services have doubled. Mining and utilities, transportation, manufacturing and trade have also created jobs at rates well above the increase of the working-age population (World Bank, 2010).

Data from the National Institute of Statistics (NIS) provide a precise mapping about the number of companies in the private sector, except for agriculture, forestry, fishing and activities of households as employers. Most companies are very small; almost 70 per cent have one or two workers. In 2009 Cambodia had only 216 companies with 500 or more workers. A total of 20 per

cent of workers were employed by companies with 500 workers or more, whereas companies with less than 10 staff employed almost 70 per cent of workers (see Table 3).

Table 3: Number of companies and number of workers by size of companies (2009)

Size of employment	Number of companies	%	Number of workers	%
1–2 persons	261,518	69.41%	410,861	28.0%
3–4 persons	69,010	18.32%	231,369	15.7%
5–9 persons	33,110	8.79%	201,066	13.7%
10–50 persons	11,684	3.10%	204,504	13.9%
50–499 persons	1,225	0.33%	135,661	9.2%
500–999 persons	108	0.03%	73,689	5.0%
1,000 persons and over	106	0.03%	212,562	14.5%
Total	376,761	100%	1,469,712	100%

Source: Report on Labour Statistics, 2010. MoLVT.

The largest share of employment is concentrated in the primary sector, e.g. agriculture, forestry and fishing. In 2008, the share of primary sector employment was 72.3 per cent, while the secondary and tertiary sectors were occupying only 8.5 per cent and 19.2 per cent respectively (see Chart 2).

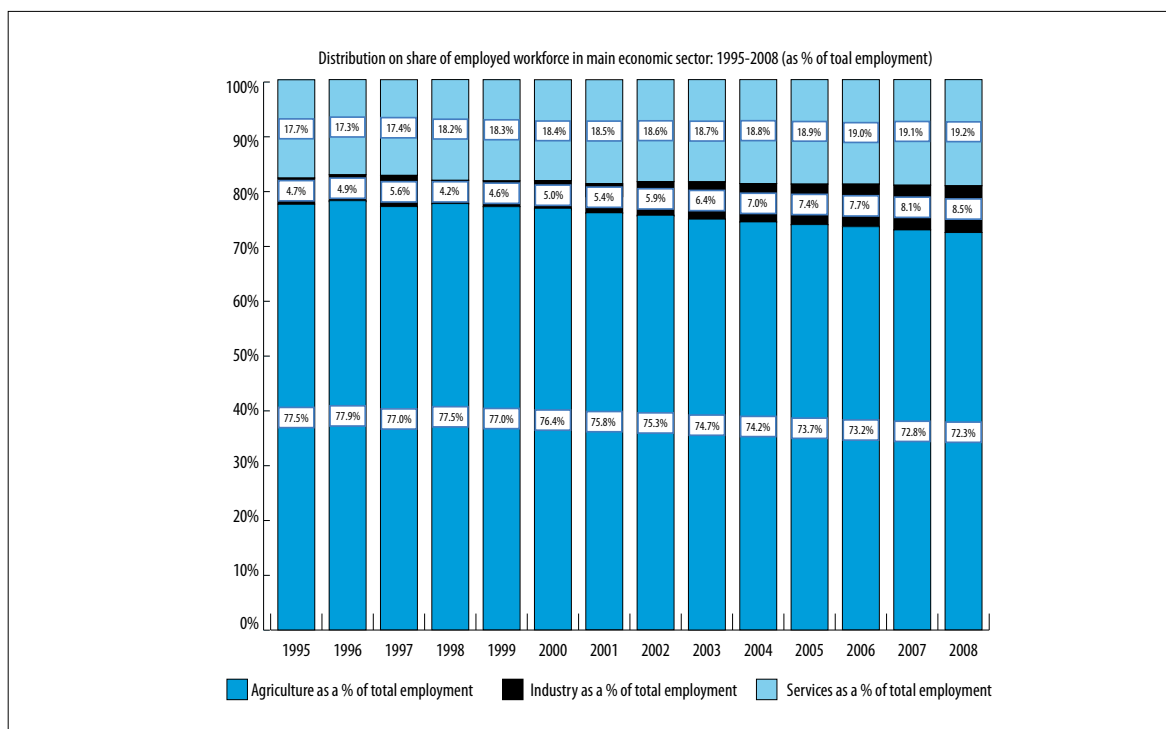
There have been substantial increases in the female share of wage employment in all sectors from 1998 to 2008: 44 per cent to 56 per cent in industry, 35 per cent to 44 per cent in agriculture and 21 per cent to 30 per cent in services (see Table 4). However, the female share of wage employment in the services sector is still too low, and much more attention needs to be given to this area (World Bank, 2007).

Table 4: Employment by sector, age and gender in 1998 and 2008 (in percentages)

Gender, sector and age	1998			2008		
	15+	15–24	25+	15+	15–24	25+
Both sexes	4,773,488	1,114,189	3,659,299	6,841,272	1,736,962	5,104,310
Primary sector	77.0	79.1	76.4	72.1	68.6	73.3
Secondary sector	4.2	6.5	3.5	8.6	15.5	6.2
Tertiary sector	18.3	13.7	19.7	19.3	15.9	20.5
Not reported	0.4	0.7	0.4	0	0	0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Male	2,330,301	502,134	1,828,167	3,345,926	828,975	2,516,951
Primary sector	71.1	75.7	69.8	69.2	70.6	68.7
Secondary sector	5.0	6.2	4.7	8.1	11.9	6.9
Tertiary sector	23.4	17.2	25.1	22.7	17.5	24.4
Not reported	0.5	0.8	0.4	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Female	2,443,187	612,055	1,831,132	3,495,346	907,987	2,587,359
Primary sector	82.7	81.9	82.9	75.0	66.9	77.8
Secondary sector	3.5	6.8	2.4	9.0	18.7	5.6
Tertiary sector	13.5	10.8	14.3	16.0	14.4	16.6
Not reported	0.4	0.5	0.4	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Labour and Social Trends in Cambodia, 2010. (National Institute for Statistics).

Chart 2: Shares of employment in main economic sectors



Source: SNEC 2011.

Labour productivity is highest in hotels and restaurants. In terms of value added per person employed (in 2000 constant value), labour productivity in the hotel and restaurant sector represented USD5,425 in 2008 (see Table 5). This is around fourteen times higher than that of the agriculture sector and 1.6 times higher than that of the manufacturing sector. It should be noted that in 2008 employment in hotels and restaurants was only 59,437 and the share of employment was just 0.87 per cent. (Even though the productivity of mining is highest, the numbers employed in this sector are low: less than 5,000 in 2008.)

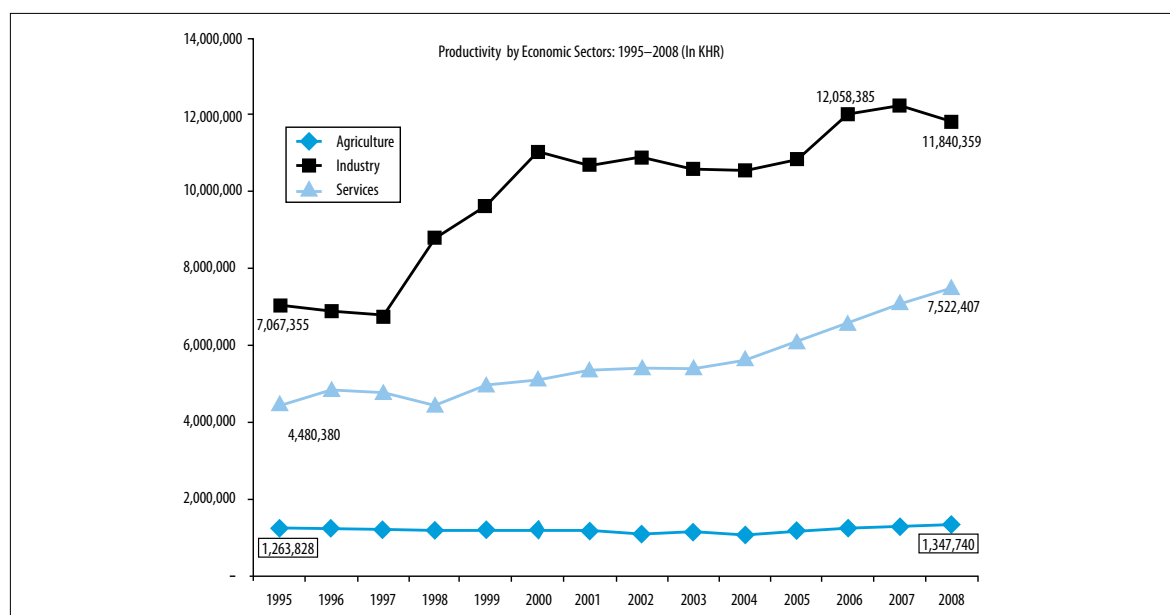
Table 5: Labour productivity by sector (of value added per person employed in 2000 constant value)

Sector	1998		2008		Average annual growth (%)	
	(million KHR)	(USD)	(million KHR)	(USD)	KHR	USD
Total	2,380	631	4,190	1,030	5.7	4.9
Agriculture, forestry and fishery	1,294	343	1,537	378	1.7	1
Mining and quarrying	3,637	964	25,341	6,229	19.4	18.7
Manufacturing	9,735	2,580	13,339	3,279	3.1	2.4
Electricity, gas and water	15,849	4,200	10,695	2,629	-3.9	-4.7
Construction	9,337	2,474	13,553	3,332	3.7	3
Trade	4,156	1,101	4,598	1,130	1	0.3
Hotels & restaurants	24,378	6,460	22,068	5,425	-1	-1.7
Transport and communications	6,042	1,601	10,824	2,661	5.8	5.1
Finance and other services	4,292	1,137	10,096	2,482	8.6	7.8

Source: Labour and Social Trends in Cambodia 2010 (National Institute for Statistics).

Increases in productivity by economic sector have been uneven. Chart 3 provides a clear picture regarding the fast growth of productivity in industry and in services. Productivity in agriculture has been stagnant since 1995.

Chart 3: Productivity by economic sectors: 1995–2008



Source: SNEC (2011).

1.2.1 Quality of the labour force

The level of education of the labour force is still rather low, but improving, with a decrease of people without any education and an increase of the proportion of people with primary education or above (see Table 6).

Table 6: Level of education of labour force (15–64 years), 2009

Age group	None or only some education	Primary school non completed	Primary school completed	Secondary or higher education	Total
Total 15–64	20.2	35.1	26.1	18.6	100
% of total age group. 15–24	11	30.4	36	22.6	100

Source: Report on Labour Market Information, 2010.

Another feature that needs to be considered is the small differences in some areas in average earnings by educational attainment level. For instance, in 2007 the average earnings of male youth were almost the same for primary, lower secondary and upper secondary education certificate holders (see Table 7). At the same time, there were relatively large differences between the earnings of bachelor degree holders and upper secondary certificate holders.

Table 7: Average earning by education level for youth (USD/Month)

Education Levels	Male	Female	Total
None	-	-	37.5
Primary School	56.23	59.82	58.14
Lower Secondary School	61.70	61.03	61.35
Upper Secondary School	59.19	65.79	62.17
Technical/Vocational	149.71	75.60	95.02
College/University Undergraduate	135.53	103.02	115.55
Bachelor Degree	150.78	129.59	141.74

Source: Cambodia Socio-Economic Survey (CSES), 2007. (National Institute of Statistics).

The figures show the limited chances for secondary school leavers of getting well-paid jobs. This adversely affects attitudes towards the continuation of education to upper secondary level, especially when families are not capable of supporting students through higher education.

A study conducted in 2011 by the economic research centre of the Royal University of Law and Economics (RULE) amongst a large representative sample of bachelor's graduates of 2008 gives interesting information on access to the labour market for higher education graduates. The study confirms the concentration of graduates in economics and management and the weak representation of graduates in engineering. A total of 45 per cent of graduates graduated in economics and management, followed by English studies (16 per cent), ICT (12 per cent), tourism (4 per cent), sciences (4 per cent) and engineering (3 per cent).

Although they were affected by the economic crisis at the end of 2008 and in 2009, higher education graduates' positions in the labour market were generally good. At the time of the survey, most graduates had a paid activity (91.3 per cent), with a maximum paid employment rate for sciences (98.4 per cent) and a minimum for engineering (88.3 per cent). Only 2.4 per cent of the graduates were unemployed and looking for a job at the time of the survey, with unemployment rates particularly low for English, literature/humanities and science graduates. Graduates in engineering faced the consequences of the economic crisis, which affected the construction sector. Civil engineering graduates in particular were affected, with 7 per cent of engineering graduates unemployed and looking for a job at the time of the survey. Nearly 80 per cent of graduates had never faced unemployment and 10 per cent were unemployed for a period which did not exceed five months.

The most qualified positions (managers, professionals and associate professionals) represented almost 65 per cent of the jobs held by graduates. The graduates of economics/management were overrepresented in two categories: clerical support, services and sales. Managerial positions were proportionally more available for English and information technology graduates. Professional posts were more available for literature/humanities graduates, which is largely due to the inclusion of teachers in this category.

The median income of the main occupation of graduates was USD250 per month (i.e. half of the graduates earned less than USD250 and half earned more than USD250), with no difference between men and women. In a country where the minimum salary in the garment industry (the main formal industry) is USD63 per month, a median income of USD250 represents four times the minimum salary.

The better paid and highly qualified jobs include four main categories: business and administration managers (finance managers, human resources managers, etc.) with a median income of USD400 per month; administration professionals (policy administration professionals, business consultants, etc.) who earn USD400 per month; science and engineering professionals (engineers, architects, etc.) with an income of USD374 per month; finance professionals (accountants, auditors, etc.) with an income of USD280 per month.

Occupations relatively well paid with large number of graduates include numerical and material recording clerks (accounting and finance clerks, book keepers, etc.) with a monthly salary of USD350, service and sales workers (USD300), and customer services clerks (USD250).

General and keyboard clerical positions (general office clerks, secretaries, keyboard operators, etc.) and secondary teacher attract large number of graduates but offer rather poor remuneration. Secondary teachers represented the worst paid job category for graduates, USD125 for males

and USD100 for females as basic remunerations, which increase thanks to additional activities, to USD160 and USD150 respectively.

The private sector employed the majority of graduates (65 per cent). The public sector recruits a little less than a quarter; NGOs employ more than 10 per cent; and private organizations who comprise of more than 100 workers employ almost 45 per cent of graduates, which is far beyond their relative position regarding private employment in Cambodia.

In relation to labour market regulation and workers' protection, the 1997 Cambodian Labour Law and the subsequent legal acts provide a detailed framework. However, the Labour Law has yet to be fully and effectively enforced for all businesses. Garment factories and larger registered companies comply more frequently with provisions in the code, with the garment industry setting the monthly minimum wage at USD63 from July 2010.

According to the RULE study of graduates, 31 per cent stated that they had not signed a labour contract with their employer. For private organizations, it is clear that the proportion of graduates without a contract decreases in line with increases in the total number of workers within a company. A total of 44 per cent of graduates in companies with less than 10 workers do not have a contract, against 25 per cent in companies with 100 to 250 workers and 10 per cent in companies larger than 1,000 workers.

1.2.2 Migration

The socio-economic importance of migration has been steadily increasing, with an increase in migrant workers and remittances from abroad. The figures reported in the following table on overseas migration relate to registered migrant workers only. However, it can be seen that the number of registered migrant workers has increased almost ten times in six years, ranging from 1,329 in 2003 to 14,924 in 2009. More than 64 per cent of these migrants were in Malaysia, 23 per cent in Thailand and 11 per cent in the Republic of Korea.

Table 8: Number of Cambodians working overseas, by country

Year	2003	2004	2005	2006	2007	2008	2009
Total	1,329	1,483	2,244	3,636	9,476	7,340	14,924
Male	711	624	899	1,798	4,611	3,616	4,292
Female	618	859	1,345	1,838	4,865	3,724	10,636
Thailand				445	5,670	2,116	3,543
Male				226	3,935	1,425	1,968
Female				219	1,735	691	1,575
Malaysia	573	809	1,776	1,690	3,219	2,654	9,682
Male	73	105	467	231	174	53	876
Female	500	704	1,309	1,459	3,045	2,601	8,806
Japan					3	39	16
Male					3	13	10
Female					0	26	6
Rep. of Korea	756	674	468	1,501	584	2,531	1,687
Male	638	519	432	1,341	499	2,125	1,438
Female	118	155	36	160	85	406	249

Source: Department of Employment and Manpower, MoLVT.

According to MoLVT statistics, in 2008, most Cambodian migrants were working in the manufacturing sector (50.2 per cent), followed by domestic work (35.2 per cent) and agriculture (13.2 per cent).

Table 9: Number of Cambodian workers working overseas, by sector

Year	2003	2004	2005	2006	2007	2008
Total	1,329	1,483	2,244	3,636	9,476	7,340
Domestic workers	37.6	39.2	44.9	31.4	22.3	35.2
Manufacturing	62.4	55.6	49.4	68.3	76.0	50.2
Agriculture	0.0	5.1	5.7	0.3	1.6	13.2
Construction	0.0	0.0	0.0	0.0	0.0	0.9
Officials	0.0	0.0	0.0	0.0	0.0	0.5

Source: Department of Employment and Manpower, MoLVT.

This report will address (Chapter 3) the question of qualifications and the reform of the qualifications system in Cambodia. The participation of Cambodia in the ASEAN Regional Qualifications Framework can improve the conditions of Cambodian migrants in neighbouring countries labour markets.

In addition, it is worth raising several other aspects of migration that are now receiving greater attention:

Diasporas: Governments are increasingly interested in diasporas as part of growth and development policies. Circular migration and trans-national networks have a significant economic and social impact. According to the International Organization for Migration (IOM) in Cambodia, as of 2007, the remittances of Cambodian migrant workers tripled in less than 10 years and represented more than 4.1 per cent of the GDP. While it is difficult to get exact figures for illegal Cambodian migrant workers, the most important destination countries are Thailand and Malaysia.

Brain drain and brain gain: While concerns continue, rightly, about the brain drain that occurs when 10 per cent or more of the highly qualified people from a particular sector emigrate, there is also a growing interest in the 'brain gain' effect. Patterns of skilled and highly qualified emigration may act as an incentive for others to participate in education and training. At the same time, 'brain waste' is now a recognised phenomenon, in which young returnees do not pursue further studies after a period abroad.

Returning migrants: Those individuals bring back skills, work experience and often capital from abroad. This aspect is now often discussed under the heading of circular migration.

Knowledge and technology transfer: Migration in the information age opens up new opportunities for the transfer of knowledge and technology.

1.2.3 Demand for skills from the productive sector

The growing role of the manufacturing sector will have a direct impact on the demand for skills. A 2004 Japanese International Cooperation Agency (JICA) study identified priority industries by looking at sub-sectors of labour intensive and agricultural based industries, as well as at global and regional trends. The study identified food processing, garments, electric/electronic

components, and machinery and chemical/ferrous/non-ferrous metals industry as the next industry developments for Cambodia.

However, the current relatively narrow industrial base means that demand for highly skilled workers and technicians is modest (ADB, 2011). This hiatus gives Cambodia an opportunity to work gradually on boosting the quality of training as the demand grows. Indeed, producing large numbers of less well-trained skilled workers could actually have a deleterious effect in three ways: the demand for higher quality skilled workers could still be unmet, TVET graduates could be unemployed, and the future demand for TVET places could be depressed as job prospects in TVET could be seen as problematic.

At present, the comparative advantage of Cambodia is its low labour costs (SNEC, 2011). This is reflected in the low percentage (15.5 per cent) of firms identifying skills as a relevant constraint. However, as noted by the World Bank (2010), this percentage had more than doubled in four years (6.5 per cent in 2003).

Based on a pioneering report of the Cambodian Federation of Employers and Business Association (CAMFEBA) on youth and employment (2008), the World Bank report notes that employers identify soft skills as the most important skills lacking in most employees, in particular among out-of-school youth. However, as noted by the World Bank report (2010) the rising demand for workers with a mix of good soft and technical skills remains largely unmet. For instance, according to the survey, only 13 per cent of employers affirm that students graduating from vocational and higher education have all or most of the skills needed for work. Instead, 76 per cent of employers affirm that graduates are not equipped with the set of skills they need to perform their jobs (see annex 1 for details regarding the survey results).

1.3 Conclusion

The socio-economic factors and labour force characteristics enumerated above have a direct impact on education and training policies. Cambodia's economy is growing and its structure is changing. At the same time Cambodia is facing a dramatic expansion of its labour force, with large cohorts of youth joining the labour market. Whether this sizeable young labour force is a blessing or a burden will depend to a large extent on the capacity of the economy to create more jobs and to provide decent work, and on the capacity of decision makers to provide opportunities to youth and adults to develop skills that will be rewarded in the labour market and that will support further learning. To achieve this, different components of public policies should be brought together in an integrated manner, including agriculture and industrial development, education and training, employment and social protection.

Part 2: The Education and Training System

This section introduces the overall architecture of the education and training system in Cambodia, assesses the quality of education and considers its effectiveness in equipping graduates with knowledge and skills for the labour market and further learning.

UNESCO has developed an Education for All (EFA) Development Index (EDI) which is a composite index that provides an overall assessment of a country's education system in relation to EFA goals. Due to data constraints the index currently focuses only on the four most easily quantifiable EFA goals: universal primary education (goal 2), measured by the primary adjusted net enrolment ratio (ANER); adult literacy (first part of goal 4), measured by the literacy rate for those aged 15 and above; gender parity and equality (goal 5), measured by the gender-specific EFA index (GEI), an average of the gender parity indexes of the primary and secondary gross enrolment ratios and the adult literacy rate; and quality of education (goal 6), measured by the survival rate to grade 5.

Table 10 presents the EFA Development Index for selected countries of Asia. Out of 127 countries, Cambodia's overall EDI is 102, right behind Bhutan (101), but better than Lao PDR (109). A survival rate to grade 5 indicates the effectiveness and quality of the education system. In the case of Cambodia, survival rate is very low (0.621), much lower than Bhutan (0.961), and lower than Lao PDR (0.668).

Table 10: The EFA Development Index and its components 2008

Ranking according to level of EDI	Countries/Territories	EDI	Primary adjusted rate	Adult Literacy Rate	Gender-specific EFA Index (GEI)	Survival rate to grade 5
High EDI						
1	Japan	0.995	1.000	0.992	0.999	0.990
4	Kazakhstan	0.994	0.991	0.997	0.992	0.995
23	Azerbaijan	0.983	0.961	0.995	0.986	0.990
50	Republic of Korea	0.968	0.990	0.935	0.958	0.987
Medium EDI						
65	Malaysia	0.945	0.961	0.921	0.961	0.937
69	Indonesia	0.934	0.987	0.920	0.966	0.862
85	Philippines	0.898	0.921	0.936	0.965	0.768
Low EDI						
101	Bhutan	0.793	0.842	0.528	0.841	0.961
102	Cambodia	0.786	0.886	0.776	0.861	0.621
107	India	0.769	0.955	0.628	0.834	0.658
109	Lao PDR	0.761	0.824	0.727	0.826	0.668
112	Bangladesh	0.723	0.884	0.550	0.909	0.548

Source: *Education for All Global Monitoring Report, UNESCO, 2011.*

The education system suffers from various inequalities. Attendance and completion rates are strongly associated with wealth, gender, ethnicity, location and other factors. For example, 28 per cent of people aged 23 to 27 from the wealthiest 20 per cent of households have completed secondary school, compared with 0.2 per cent for the poorest households.

The situation is critical for poor youth from urban and rural areas. For instance, 90 per cent of urban poor youth and 82 per cent of rural poor youth areas have not completed lower secondary education compared with 31 per cent of urban rich youth (UNESCO, 2012).

Education system in Cambodia is characterized by low internal efficiency. For instance, a quarter of school leavers do not complete primary education. A total of 14 per cent of them leave the school system after having completed primary education, 16 per cent after having completed lower secondary education, 19 per cent at the end of secondary education or without having completed higher education and 9 per cent leave with a certification from higher education

(see Table 11). That means that at least 42 per cent of the population hardly masters the basic skills required for further learning including vocational training.

Table 11: Estimates of education levels of school leavers at the beginning of the 2010's

Level of Education	Percentage
None or some education	42
Primary school completed	14
Lower secondary education	16
Upper secondary education and higher education non completed	19
Higher education completed	9

Source: MoEYS.

2.3 Conclusion

Cambodia is making progress towards achieving universal primary education and expanding equitable access to education. However, without provisions for ensuring educational quality, the gains will have minimal positive impact on the lives of learners. Poor quality education at the lower age-levels reduces quality at the post-basic levels and does not sufficiently prepare young people to seize TVET learning opportunities.

Part 3: The Technical and Vocational Education and Training System

This section introduces the characteristics of the technical and vocational education and training system in Cambodia, the TVET policy framework, legal framework, TVET system steering and institutional governance and processes of deconcentration and decentralization. This section then considers TVET funding and issues of access and participation, curriculum, pedagogy and quality.

3.1 Characteristics of TVET

The TVET system includes all forms of learning and development with a major technical or vocational component. This comprises formal technical or vocational education provision, whether in school, college, university, training or work settings, formal training programmes, less formal / more informal learning while working, and other forms of learning which may be self-directed or involve peer learning.

In Cambodia, formal TVET provision covers four main levels:

- Certificate level: Short courses from a few weeks to less than a year leading to certificates delivered in provincial or vocational training centres, or in communities;
- Diploma level: Post grade 9 trade training in provincial and vocational training centres, leading to diplomas at three levels (for years 1, 2, and 3);
- Higher diploma level. Post-grade 12 entry plus two years of study leading to a higher diploma in technical institutes and polytechnics;
- Bachelor level: Entry either (a) post-grade 12 plus four years (or 4.5 years for engineering) leading to a bachelor degree in engineering, technology or business administration or (b) higher diploma plus two (or 2.5) years for the same degrees.

Table 12: Enrolment by qualification level in 2010

Qualifications	Enrolment		
	Male	Female	Total
Bachelor + Upper	1,523	458	1,981
Diploma level	2,466	842	3,308
Certificate I, II, III	404	342	746

Source: DGVET.

There are relatively few statistics about the size and characteristics of the TVET system, particularly on costs, financing and completion. The only data available covers enrolment by qualifications levels in public institutions under the MoLVT (see table 12).

Formal TVET programmes are delivered mostly in polytechnics and technical institutes. There exist 14 polytechnics and technical institutes delivering formal TVET courses at certificate, diploma and degree levels.

3.1.1 Non-formal TVET programmes

Non-formal training programmes are delivered by a variety of providers ranging from public institutions such as Provincial Training Centres (PTCs), Community Learning Centres (CLCs), Non-Governmental Organizations (NGOs), Women's Development Centres, private providers, and small businesses offering informal apprenticeships.

There exist 22 PTCs which offer agriculture, craft and basic vocational skills. PTCs operate at a variance with each other in terms of enrolment, length of training and delivery modality.

CLCs, under the MoEYS, offer literacy and basic vocational training for income generation. At the moment, there exist 157 CLCs.

According to DGVET, on the basis of official registration data, provincial data, directories, and advertising records, an estimated 750 private businesses offering fee-based training services were identified nationwide. The largest single group offered computer and/or English language training. Other providers were identified as driving schools, dance academies and small auto or electrical workshops, which offered informal apprenticeships.

There are also a range of non-formal skills development programmes (see table 13) implemented under the set of training funds put in place by the government and donors (mainly ADB). DGVET indicated that the number of beneficiaries of the different training funds, in 2009–2019, was 114,142 (56,882 female).

Table 13: Non-formal programmes under training funds

Programme/Funds	Main purpose
National Training Fund (NTF)	Support initial training programme before employment in PTCs. At present, the NTF is administered and financed by MoLVT. All PTCs, a significant number of NGOs and some institutes receive funds from NTF to provide short-term vocational training programmes.
Voucher Skills Training Programme (VSTP)	Provide skills development programmes for disadvantaged groups in PTCs, enterprises and communities. VSTP is funded by ADB. It is a large-scale non-formal programmes responding to demand from communes and villages. Although the great majority of trainees participated in agriculture and livestock-related programmes, the VSTP also supported non-agriculture skills development programmes.
Prime Minister's Special Fund: Special Fund of Samdech Techo Prime Minister	Support skills development and entrepreneurship for the recently unemployed and out of work youth. The fund also provides allowances to trainees for food and accommodation. Training is delivered by PTCs, NGOs and communities.
Post-Harvest Technology and TVET Skills Bridging Programme	Provide training in post-harvest skills for agricultural producers and skills training to jobless and out-of-school youth to allow them to be integrated into the formal TVET

Source: adapted from DGVET, ADB 2009, World Bank 2010.

3.1.2 In-service training programmes

In Cambodia in-service training programmes are not regulated. Little information is available regarding the actors, the scale and the importance of in-service training. Quantitative information (with corresponding performance indicators) is limited to a, relatively small scale of activity reported in a scattered way by CAMFEBA and other organizations.

There is evidence that few private enterprises are spending significant amounts on in-company technical and vocational training. A case in point is the ACLEDA Bank which developed a robust training system geared to human resources management (Box1).

Box 1: In-service training in ACLEDA Bank Plc.

ACLEDA Bank Plc. is a public limited company, formed under the Banking and Financial Institutions Law of the Kingdom of Cambodia. Originally, it was founded in January 1993, as a national NGO for micro and small enterprises' development and credit. ACLEDA has a large network of offices (234) located in provinces and towns.

ACLEDA has a strong human resources management focus with substantial investment in employees' skills development and career management. It has an internal training centre that is in charge of all internal and external staff training programmes.

The ACLEDA Employee Training and Development Report in 2010 indicates that the organization has developed three types of programmes:

Staff training and development: this programme includes training for new employees and skills development training for employees. This type of programme respond to bank needs and is based on a collective training plan.

Staff development: this programme is geared toward staff career development needs and covers additional learning programmes which are regular higher education programmes (PhD, Master, Bachelor) and short-term courses such as English language programmes.

Internship: this programme offers learning opportunities for students (local and overseas).

Training courses are implemented through internal and external resources (trainers). Almost 99 per cent of programmes are implemented using internal resources.

Key training figures are as follows:

	2007	2008	2009	2010
Total bank staff who received training	4,401	6,128	7,013	6,999
Average of training received per staff	43	36	27	27
Average training hours received per staff	5	5	5	6
Training cost per staff (USD)	118	11	80	66
Total training cost	518,350	679,926	564,305	464,305

3.2 TVET Policy Framework

3.2.1 Context

The Government and private industry are faced with the challenge of meeting increased global competition and more regional competition following the introduction of a common market in the ASEAN region from 2015.

The TVET system seeks to interface with the Rectangular Strategy of strengthening four major pillars of economic and social development: agriculture, physical infrastructure, private sector and employment, and human resources.

The National TVET Development Plan (NTDP) 2006–2010 consisted of 15 policies with associated strategies:

1. Macro Policy

- Policy 1: Poverty Reduction
- Policy 2: Decentralization
- Policy 3: Supporting Enterprise Growth with a Skilled Workforce

2. Development Policy to Support the Macro Policy

- Policy 4: Out of School Youth
- Policy 5: Self-employment
- Policy 6: Micro Credit Access
- Policy 7: Small Enterprise Support
- Policy 8: Community and Enterprise Based Training (outreach)

3. Enabling Policy to sustain the demand driven TVET system

- Policy 9: PPP-Beneficiary Financing TVET
- Policy 10: PPP-Enterprise Involvement in TVET
- Policy 11: PPP-Expanding the provision of TVET
- Policy 12: Assuring Quality of TVET provision
- Policy 13: Quality of TVET Leadership, Management & Coordination,
- Policy 14: Labour Market Information,
- Policy 15: Skills Competency Standard.

The NTDP had two major goals. First, TVET needed to respond to social equity issues by assisting the poor to master skills which would enhance family income through better agricultural productivity or from basic self-employment. Second, TVET needed to meet the needs of enterprises for a skilled and adaptable workforce. The NTDP also sought to promote decentralization, assuming that TVET training would be best offered in communes where local markets and village skills are understood. It set out to develop the role of Provincial Training Centres (PTCs) which were to provide not just training but also planning and services for TVET. It was felt that the PTCs could increasingly concentrate on expanding the availability of TVET through private sector trainers, often assisted by PTC staff. PTCs were to receive 10 per cent of the value of this training in payment for developing and arranging the training (e.g. in the Voucher Skills Training Programme).

The importance of TVET is also highlighted by donors and international organizations. An ADB report (2009) saw TVET as crucial, but lacking the capacity to respond in an adequate manner to the labour market and individual skills needs. The report identified that the TVET sub-sector could assist in economic development by 'training in skills, knowledge and aptitudes to: (i) increase productivity by performing existing jobs more effectively; (ii) perform more value-added jobs within a given industry (many of which are currently being filled by foreign workers); and (iii) widen the range of production processes and industries (e.g. ones that the government has identified as potential export enhancing and/or import replacing)' (ADB, 2009, p. ix). A subsequent ADB (2011) report reiterated the key role for TVET in contributing to the medium- to long-term growth and development of the country and acknowledged that current government planning provided for:

- Upgrading of the TVET curriculum on the basis of determined labour market needs and specified industry skills requirements and skills standards;
- Improved trainer capacity and accompanying training resources;
- Enhanced system management and development capacity; and
- Wider national access to effective training to meet the national demand for high-quality skills.

The World Bank (2010) has also advocated for an integrated skills development framework "which should address disadvantaged youths preparation for the labour market, an integrated approach

should be adopted to address poor quality of general education, high drop-out rates and the need for technical training [...]. A strategy for improving the quality of training could consist of three pillars, covering certification, accreditation and financial support to high-performing institutions and poor students" (p. 17).

3.2.2 Promoting quality and effectiveness in TVET

A Circular on the Promotion of Quality and Effective Technical and Vocational Education and Training published by the Prime Minister's office in February 2011 mapped out a plan for the future:

TVET plays a key role in human resource training geared towards socio-economic development, increase in the living standards and poverty reduction. TVET has so far fulfilled these important roles and achieved remarkable results. The next stage in TVET development requires its strengthening and expansion in terms of both quantity and quality. Enough energy needs to be gathered to produce a skilled workforce with technical capacities in order to contribute to promoting socio-economic development, creating employment opportunities for youths, attracting both national and international investors and addressing other challenges such as the issues of labour mobility and establishment of ASEAN free trade area after 2015 (Circular 01 SRNN, 2011).

The aforementioned circular sets out the following strategic directions for TVET (see full text in annex 2):

- Develop the TVET system to a level of high effectiveness and attractiveness, for socio-economic development and increased public recognition;
- Promote the quality and outcome of TVET in order to increase employment opportunities, job productivity and income;
- Strengthen training based on the principle of equity by giving priority to women, disadvantaged or marginalised people, poor youths and dropouts.

The circular concluded that the MoLVT shall manage TVET programmes to ensure quality, work on creating detailed regulations and develop a circular to implement the above measures, monitor and evaluate implementation and report to the Government.

The MoLVT is also aware that TVET needs to align with markets beyond the domestic labour market. It has strategies to develop enterprises and strengthen migration for employment abroad. The migration strategy linked migration policies and bilateral agreements, selection and assessment of appropriate recruitment agencies as well as skill and language development and preparation for working abroad. The UNESCO team saw examples in PTCs, for example in Kampong Thom province, of integrated TVET provision which combined skills development, language courses and support to facilitate migration to the Republic of Korea.

At a broad strategic level, TVET policy appears well-founded, both in relation to current policy and in terms of positioning the country for the future. Policies are coherent and relatively comprehensive. However, they are not yet particularly well-grounded in evidence, due to the absence of up-to-date financial and performance data (ADB, 2011). The absence of such evidence is an obstacle to ongoing work on policy, planning and implementation.

3.3 TVET System Steering and Institutional Governance

This sub-section analyses the governance model of Cambodia's TVET system and analyses the country's education and training governance arrangements in the context of international experience. The focus is on understanding how institutional arrangements contribute to the goal of ensuring a high quality TVET.

The governance model of the Cambodian TVET system has been evolving on four main fronts over the last decade. The first front has been the setting up of an entity with specific responsibilities for setting standards, certification, assessment and evaluation of the TVET system. The second front is the more recent policy decision to decentralise. The third front relates to school empowerment and autonomy. The last front is about the involvement of civil society and social partners in policy decision making.

Until 2004, formal TVET was under the Office of Technical and Vocational Training of the MoEYS. The office was directly responsible for the administration and development of TVET and for the management of its institutions and programmes. In 2005, the responsibilities for TVET were transferred from MoEYS to the newly constituted MoLVT under a Directorate General of TVET (DGTNET). Responsibilities for non-formal and informal (short course) vocational training were similarly transferred to the new ministry from the Ministry of Social Welfare.

MoLVT is organised around two central operational directorates – Employment and TVET – plus a Directorate of Administration and Finance and an inspectorate, each under a Secretary of State and an Under Secretary of State. It has 24 provincial or municipal offices.

MoLVT is now officially mandated to regulate formal and non-formal TVET. However, other ministries also operate TVET programmes, in particular the MoEYS, and the ministries of Women's Affairs, Health, Agriculture and others. Each ministry sets operational requirements for teachers and schools under their responsibilities; administers the public budget for TVET.

In addition, in the absence of a recognised ministry in charge of coordination and certification, private providers and NGOs have the freedom to decide to apply for MoEYS or MoLVT for a semblance of 'official' programme certification. As a consequence, a myriad of institutions and programmes are operating, all of variable quality, which remain largely unregulated.

The key players within the Cambodian TVET system include:

- The Ministry of Labour and Technical and Vocational Education and Training (MoLVT)
- The Ministry of Education, Youth and Sport (MoEYS)
- Education and labour local authorities
- Provincial Training Centres
- Community Learning Centres
- Schools (especially those designated as resources centres)
- Employers' organizations (CAMFEBA)
- Private companies
- NGOs

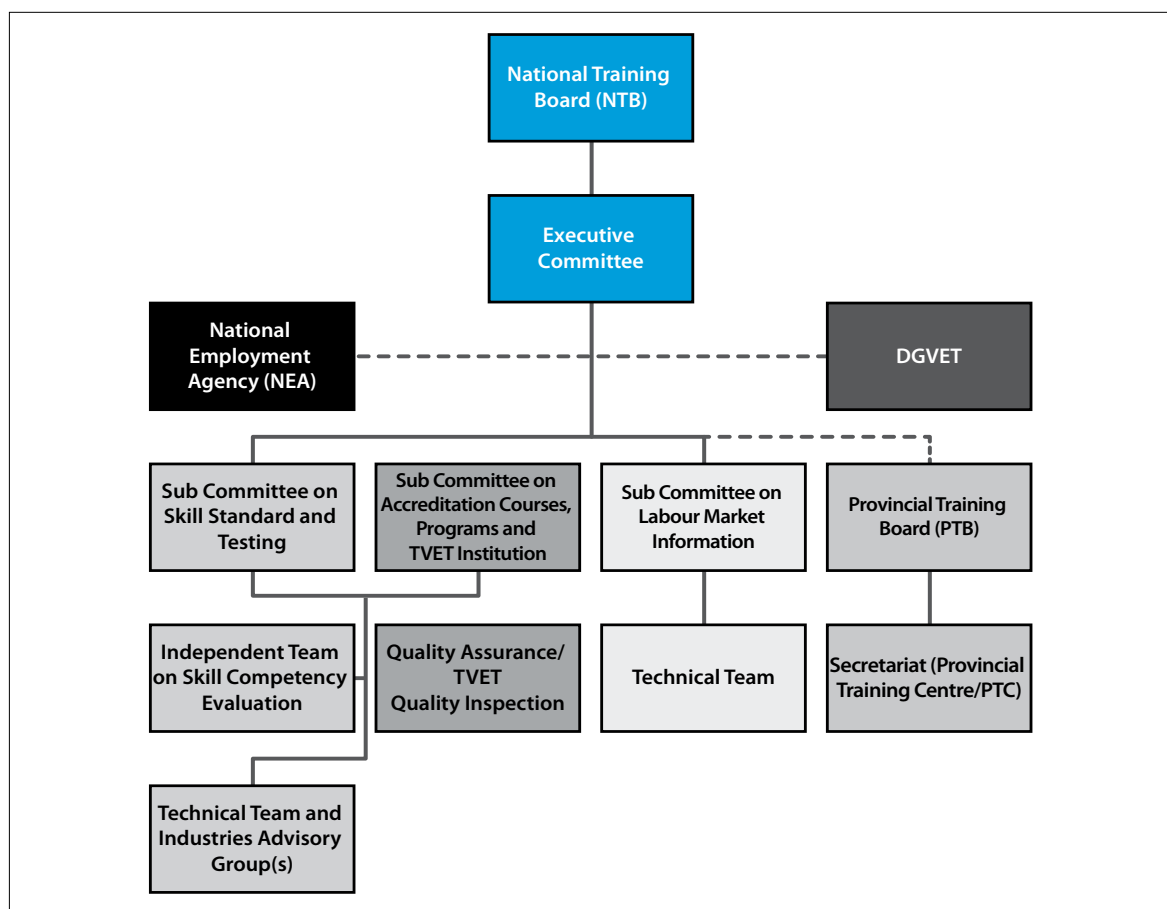
- National Employment Agency (NEA)
- National Training Board (NTB)

The National Training Board (NTB) has overall responsibility for the TVET system. It is the policy determination, consultative and monitoring authority for TVET for Cambodia. The DGVET of the MoLVT acts as secretariat to the NTB, which provides it with policy direction and guidelines for provision of national skills development. The structure ensures emphasis on labour market needs and the demand for skills, rather than just on the supply side of training provision.

Membership of the NTB is under the chair of the Deputy Prime Minister. There are 31 additional members, of whom 16 are senior government officials (including five secretaries of state, three undersecretaries, and eight director generals or deputies). Besides this, all ministries with direct involvement in TVET provision are represented in the Board. In addition, a total of five positions are occupied by private sector or employer associations, two by representatives of trade unions, three by NGO representatives, and four by representatives from government training institutions.

As illustrated in Figure 1, the organizational structure of the NTB includes three technical sub-committees: (i) Sub-committee on Skills Standards and Testing; (ii) Sub-committee on Accreditation Courses, Programs and TVET Institutions; (iii) Sub-committee on Labour Market Information. The NTB has also provincial representation through Provincial Training Boards (PTBs) who report to the executive committee.

Figure 1: NTB structure

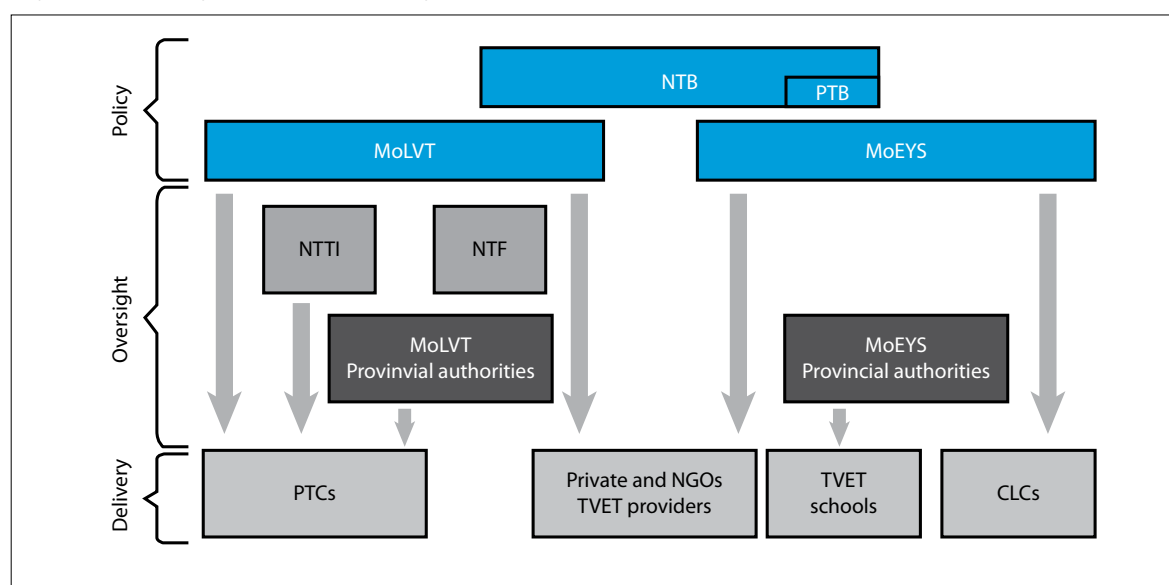


There is a notable difference between NTB's legal mandate and responsibilities and the actual functions that it carries out, reflected in the infrequent and ad-hoc nature of its meetings. Another important feature is the low involvement of social partners in the NTB.

Figure 2 illustrates Cambodia's TVET governance arrangements. The NTB is the most important policy-setting authority. It sets performance standards for all TVET system participants. More particularly, the NTB is expected to set occupation and certification standards.

One key feature of Cambodia's TVET governance arrangements is the non-separation of policy and oversight functions. For instance, the NTB has both policy-setting and oversight responsibilities. However, international experience suggests that successful TVET systems are shifting toward governance arrangements where the ministries remain the main policy-setting authority. Monitoring and evaluation functions are transferred to agencies that are operationally independent from the ministry. The goal of these reforms is to avoid conflicts of interest that may arise when the same agency evaluates the success of the policies and programmes for which it is also responsible.

Figure 2: TVET governance arrangements



Source: Authors

From a governance and institutional arrangements perspective, it is important to understand the responsibility of each institution in setting performance standards, evaluating and reporting on performance, setting requirements for operation, providing technical and pedagogical support, and ensuring adequate and equitable distribution of funding. Table 14 shows an attempt to map responsibility for quality in the TVET system and how it is distributed, at present, between different institutions.

Table 14: Mapping of responsibility for quality in TVET system

	MoLVT	NTB	NTF	NTTI	MoLVT Directorates (Provinces)	Other departments
1. Sets performance standards						
2. Evaluates performance						
3. Reports on performance						
4. Evaluates the impact of policies and programmes	Yes	Yes	Yes		Yes	
5. Sets requirements to operate						
6. Provides technical-pedagogical support						
7. Ensures adequate funding and its equitable distribution						

Colour key:

Institution is:

- Legally responsible and carries out this function.
- Legally responsible for this function but does not carry it out in practice, or does so to a very limited extent.
- Not legally responsible for this function.

	Sets performance standards	Evaluates performance	Reports on performance	Evaluates the impact of policies and programmes	Sets requirements to operate	Provides technical-pedagogical support	Ensures adequate funding and its equitable distribution
MoLVT	Legally responsible and carries out this function	Not legally responsible for this function	Legally responsible for this function but does not carry it out in practice, or does so to a very limited extent	Not legally responsible for this function	Legally responsible and carries out this function	Legally responsible and carries out this function	Legally responsible and carries out this function
NTB	Legally responsible and carries out this function	Legally responsible for this function but does not carry it out in practice, or does so to a very limited extent	Not legally responsible for this function	Legally responsible for this function but does not carry it out in practice, or does so to a very limited extent	Legally responsible and carries out this function	Not legally responsible for this function	Not legally responsible for this function
NTF	Not legally responsible for this function	Not legally responsible for this function	Not legally responsible for this function	Not legally responsible for this function	Not legally responsible for this function	Not legally responsible for this function	Legally responsible and carries out this function
NTTI	Not legally responsible for this function	Not legally responsible for this function	Legally responsible for this function but does not carry it out in practice, or does so to a very limited extent	Legally responsible for this function but does not carry it out in practice, or does so to a very limited extent	Not legally responsible for this function	Not legally responsible for this function	Not legally responsible for this function
MoLVT Directorates (Provinces)	Not legally responsible for this function	Not legally responsible for this function	Not legally responsible for this function	Not legally responsible for this function	Not legally responsible for this function	Legally responsible and carries out this function	Legally responsible and carries out this function
Other departments	Not legally responsible for this function	Not legally responsible for this function	Not legally responsible for this function	Not legally responsible for this function	Legally responsible and carries out this function	Legally responsible and carries out this function	Legally responsible and carries out this function

Source: Authors

The need for fundamental change in the governance of Cambodian TVET has been a consistent theme for more than a decade. The ADB review of 2011 concluded that “there appears to be a need for more extensive employer involvement in guiding and assessing training, and specifically the need for increased employer representation on the NTB. This requires ongoing adjustments of its membership mix to reflect the overall scope and private/public balance of the economy and the patterns of skilled labour needs and training provision.” (ADB, 2011, p.26).

Governance problems are also linked to inter-ministerial coordination, for example in terms of overseeing the provision of non-formal TVET. The World Bank Report (2010, p.77) noted that “there appears to be some overlap on training offered by MoEYS and MoLVT and on respective responsibilities [...] who should provide non-formal training to out-of-school youth, and who should supervise and coordinate it”.

There is a need to further build up employer engagement and trust while expanding to other planned sectors and at many different levels within the TVET system. For this, there is also a need to strengthen the role of CAMFEBA and Federations and to build their institutional capacity to participate in TVET.

3.4 Decentralization and Deconcentration

According to the ADB review of governance in Cambodia (2012), the education sector is more advanced than most other sectors in terms of deconcentrating responsibilities to provincial branches which have direct dealings with school management.

The MoLVT is also acting to bring about more decentralization, eg. deconcentration of services. At the policy level, PTBs are expected to play an important role in the steering of the TVET system at provincial level. However, in the province visited by the UNESCO team there was no evidence of relevant activities being undertaken by the PTB, and the stakeholders interviewed did not provide information regarding regular meetings or decision-making processes.

Successful decentralization has to go hand in hand with TVET institutions’ autonomy. In reality, decentralization and TVET institutions’ autonomy are in tension with existing forms of ‘centralised’ governance. This may be inevitable. In reality, the autonomy of TVET institutions, and consequently their accountability, remains undefined and there is no trace of developing an effective model of TVET institutions in the MoLVT Strategic Plan. Moreover, no institution visited had any instruments for strategic planning. The management had greater concern for daily micro-management of their institutions than analysis of the local TVET environment and the development of a vision for the future. For example, an important tool for autonomy and accountability is the TVET institution’s Development Plan (DP). The DP should be based on the present situation of the concerned institution (as a baseline) and should reflect students’ needs and priorities in local development plans.

In all cases, decentralization and autonomy should be accompanied by important efforts for capacity building at different levels.

3.5 Funding of TVET

This subsection examines the availability of financial resources for TVET and the challenges faced by Cambodia as it seeks to expand enrolment and improve quality in a financially sustainable way. Financing is discussed from the viewpoint of resource mobilization, allocation, utilization, and equity impact. Finally, there is a discussion regarding the need to mobilise sustainable resources for TVET and implement mechanisms to stimulate effective and innovative management practices.

Confronted by budgetary pressures, the Cambodian Government continues to find it difficult to provide adequate, stable financing for public TVET institutions and skills development in general (an exception is the above mentioned Prime Minister's Special Fund, developed as a response to the global economic crisis, which prioritised support for the recently unemployed and out-of-work youth).

In 2009, the recurrent budget for MoLVT was set at USD12.735 million, of which USD9.22 million was earmarked for central administration and USD3.515 million for provinces and cities. In addition, a triennium capital expenditure budget (2009–2011) was set at USD8.167 million, of which USD1.24 million was set down for expenditure in the 2009 financial year. This budget represented an increase of 43.4 per cent over that of 2008, which in turn was an increase of almost 25 per cent on 2007. Since its creation in 2005 with a budget of USD2.949 million, the MoLVT's recurrent funding has increased nearly 350 per cent over the five year period or on average just over 45 per cent year on year. While full disaggregation and allocation of the budget data is not possible, it seems that approximately 50 per cent of the recurrent annual allocations to the DGTVE (2009) were for training provision in PTCs and for long-course institutes. Table 15 shows the allocation of the 2009 DGTVE budget by sub-programme areas, for the major central responsibilities of DGTVE, excluding salaries and utilities for head office and all institutes.

Table 15: Recurrent budget outlays, DGTVE, by sub-programmes, 2009, (USD)

Sub-program	Management Responsibility within DGTVET	Description	(USD)
1	TVET Secretariat	National Training Board	45,122
2	TVET Management	Technical Management Service	164,024
3		Programme Budget (Long Courses)	160,000
4		Programme Budget (Short Courses)	411,463
5		National Training Fund	624,390
6	National Competency Standards	Quality Assurance	68,073
7	Labour Market Information	Labour Market Information	40,195
8		Special Training – Apprenticeship, Handicapped, etc.	21,537
Total			1,534,805

Source: DGTVE 2009.

3.5.1 Sources of funding

The national education budget derives from several different sources, including central government funding, non-governmental (private) funding and investment, foreign loans, technical assistance and grants, and local revenues generated by each school and community. While the budget from the central government is mainly used for wage-related recurrent expenses, other operational budget support called 'programme-based budgeting' is used to provide financial support to public TVET institutions.

At present, the principal sources of funding by type of TVET provision are: (i) direct budgetary support to the DGTVE for revenue administration, salaries and other recurrent costs, as well as scholarships; (ii) grants and concessional loans; and (iii) student fees, Voluntary Industry Levies, donations and in-house training. Grants and concessional loans to the Royal Government of Cambodia (RGC); include some direct funding of programmes (e.g. VSTP) from a variety of sources, including the ADB and the Governments of Korea, India, Japan and Germany. NTF's resources originate from the Ministry of Economy and Finance.

3.5.2 Allocation of funds

In an international review of training funds, Johansen (2009) provides a useful typology of TVET financing: (i) pre-employment training fund; (ii) equity training fund; and (iii) enterprise training fund. Table 16 complement information provided in section 1 and maps the available financial instruments for TVET in Cambodia against Johansen's typology. Clear gaps occur in relation to the role of enterprises in skills development: e.g. enterprise training fund.

Table 16: Typology of training funds in Cambodia

Name	Type	Main purpose	Financing sources
Training Fund	Initial training programme	Finance the expansion and delivery of initial training before employment	Public subsidy
Voucher Skills Training Programme	Equity training fund	Increase opportunities for skills acquisition by disadvantaged groups not covered by enterprise schemes	Public subsidy and donors (ADB)
Prime Minister's Special Fund	Equity training fund	Increase opportunities for skills acquisition by recently unemployed and out-of-work youth	Public subsidy

At present, all PTCs and some 'long-course' institutes receive funding under the NTF. A significant number of NGOs also receive support, some of which contract both public and private providers to deliver the actual training, if they are unable to deliver it themselves.

Many reports point to the large expenditures on wages, which in turn leaves few resources available to cover developmental expenses such as teaching and learning materials and other inputs. In reality, without a sustained mid-term financial commitment from the Government there is little hope that the available budget will be spent on improving TVET quality instead of recurrent expenditures (wages).

3.5.3 Use of funding

Based on visits to several institutions, we can argue that, with some exceptions, heads of TVET institutions are not planning their institutional budgets but rather this is being done for them. Furthermore, the UNESCO mission but that this is rather being done for them, if any, TVET institutions' boards are having in overseeing budget planning and budget execution, their active involvement seems unlikely. The absence of detailed costing for curricula implementation (cf. Section 3.8) is a key weakness of the present system. A bottom-up budgeting based on teaching and learning activities, enrolments and pedagogical organization is necessary for any effective improvement of resource utilization. This seems difficult to achieve without greater autonomy of TVET institutions.

3.5.4 Policy issues

There is an urgent need to engage in policy discussions at the highest levels to ensure appropriate, sustainable and coordinated funding (investment and recurrent spending) for TVET. The present report highlighted already several features of the present funding system: (i) diversity of funding sources which lead to coordination challenges; (ii) donor dependency which triggers sustainability challenges; (iii) importance of wage expenditures which impacts on quality; (iv) low involvement of enterprises which reduces the capacity of the TVET system to respond adequately to labour market needs.

The ADB (2011) report presents an assessment of the TVET financing system. According to this assessment, the DGVET budget has increased at an average rate of around 45 per cent over the past five years. The results points to the absence of up-to-date financial (and performance) data within the MoLVT. The report considers it to be a key obstacle to the formulation of well-informed policy, planning and operational decisions by the DGTVE senior management. Currently, the majority of the DGTVE programme funding is expended on short-course provision. Private contributions to publicly delivered long-course TVET, by way of fees, are now apparently common, and possibly amount to between 70 per cent and 90 per cent of total annual recurrent costs in some programmes.

More broadly, alternative reforms to system financing have to be analysed from the perspectives of resources mobilization, allocation and utilization. In this context, there are key challenges that the system needs to further address: (i) funding gaps; (ii) mechanisms for gaining sustainable resources; (iii) resource allocation, including issues of equity; (iii) linking finance with quality improvement and performance.

Based on international experience, there are five broad financing trends that could be envisaged separately or in combination (Masson, 2006):

1. Introduction of per-capita funding;
2. Decentralization of key areas of funding responsibility to regional and local authorities;
3. Greater autonomy for schools;
4. Equity;
5. Increased emphasis on private/enterprise funding.

Box 2 provides a detailed analysis of these trends and their implications. In the case of Cambodia, there is a clear attempt to partially implement these five financing trends. For example, in the introduction of per-capita funding, the unit cost is not yet weighted by occupational sector.

The same applies to TVET institutions' autonomy to generate funds for example through interventions funded by training funds and/or the Voucher Skills Training Programme. The latter is also related to equity for a specific group, such as the rural population. However, the key gap appears in the area of involving private/enterprise funding, which is still at its infancy. The involvement of enterprises in setting-up sustainable mechanisms for funding is discussed in a later section. However, we can already argue that there is a gap in the role of enterprises in TVET funding. The ADB report (2011) highlights a lack of genuine private/public partnerships in TVET provision as yet.

Box 2: Key trends in system financing

Per-capita funding in simple terms is a sum allocated (usually annually) to each student going through schooling. The notion is complicated by the criteria for weighting this sum: for example, full-time or part-time students, disadvantaged students, rural students requiring transport or dormitories. In TVET the sum may be weighted by occupational sector. A staff-student ratio may be determined by multiplying the class size, the number of times it meets and the number of hours taught by the teacher. Modify each variable and the ratio is changed.

Decentralization: It is important to flag up at an early stage the distinction between decentralization (associated with local political elections and local tax collection and distribution), *deconcentration* (e.g extension of the central government to the local level), and *cursive autonomy* (e.g. responsibility for local affairs).

Greater autonomy for schools is relative. No institution can be truly autonomous if it depends on funding from elsewhere. We are focusing on flexibility in the use of marginal monies gained by commercial activities, not the overall management of overall budgets as found in schools of many English-speaking countries.

Equity is a term with several different applications. It may refer principally to schools advantaged or disadvantaged by geographical location where the responsibilities of community, region or municipality needs more or less difficult to meet; but it can equally refer to minority ethnic groups or to gender.

Private or enterprise funding in EU member state countries tends to be used by governments to shift costs either to local governments or towards the private/enterprise sector (for example, through levies for apprenticeships or continuing TVET).

Source: Adapted from Masson 2006.

3.5.5 Elements for debate

The Government's ability to carry out its strategic plans in TVET will hinge, to a large extent, on the availability of sufficient, sustainable and coordinated financial resources. From a policy perspective, two avenues are open: (i) improve efficiency with existing resources; i.e. pursue more cost-effective training solutions; and (ii) mobilise new and sustainable fund sources outside government. The latter has been part of a trend in efforts to diversify financing for TVET over the past decades in many countries. There are five potential policy options for mobilising additional and sustainable resources: payroll levies on employers; tuition and other fees paid by enterprises, trainees and their families; production and sale of goods and services by training institutions; community support and donations; and expansion of non-government provision. The Cambodian Government has been introducing the last four instruments in recent years. At present, the Government seems also to be envisaging the development of the first option, i.e. payroll levy.

The discussion regarding the introduction of a levy on payroll can be, among others, informed by international experience and regional benchmarks. Table 17 provides a synthesis of advantages

and limitations of such schemes. The key advantages of such schemes are related to stability and sustainability of resources, particularly in the context of unstable public budgets.

Table 17: Advantages and limitations of levy systems

Advantages	Limitations
Earmarked payroll levies can be viewed as “benefit taxation”, i.e. those that benefit (employers and workers) pay for the training.	Earmarked taxation does not conform well with the principles of sound public finance and weakens attempts to unify the national tax system.
Levy systems can substantially augment the resource base for training.	Payroll levies raise the labour costs to the employer, possibly discouraging employment.
Increased training resources, in turn, can substantially increase the incidence of training.	Employers may shift the incidence of the levy on to workers in the form of lowered wages; in this case, workers and employers bear the burden of the tax.
Levies can provide a steady and protected source of funding for training, particularly in the context of unstable public budgets.	Insecurity of income: under fiscal pressure, government may divert levy proceeds into general public tax revenues for non-training uses.
Levy-grant systems can encourage firms to intensify their training efforts, increase training capacity and raise training quality.	Unequal access: many firms, particularly small ones, do not benefit from the scheme; this breeds resentment, opposition and compromises the status of training levies as “benefit taxation”.
Training levies collected from formal sector employers can serve as a vehicle for cross- subsidization, e.g. for smaller employers and especially for firms in the informal sector.	Inefficiency: payroll levies may constitute an over-sheltered source of funding, leading to unspent surpluses, inefficiencies and top-heavy bureaucracies.
Funds with tri-partite management can forge cooperation among social partners and facilitate formulation of appropriate training policies.	Red tape may erect high barriers for firms to access funds.
Funds can influence the quality of training through accreditation procedures and helping to stimulate a competitive training market.	
Levy-financed funds can also help correct imbalances in training access by pooling funds, e.g. for training disadvantaged segments of society, unemployed, those in the informal sector. This redistribution can be termed “cross-subsidization”.	
Establishment of a separate training fund account can facilitate transparency and minimize distrust between employers and the public sector.	

Source: Guillermo, H (2011) Adapted from Ziderman 2003, Johanson 2009.

However, a key limitation highlighted in the same review is the fact that payroll levies raise the labour cost to the employer, possibly discouraging employment. Hence, this option has to be further explored taking into account, for instance, the low level of taxation and labour costs in Cambodia compared to neighbouring competitors (labour taxes and contributions are 0.1 per cent in Cambodia against 10.3 per cent for East Asia and Pacific). Labour costs in Cambodia (0.33 USD/Hour) are among the lowest in the Asia and Pacific region (see Table 18).

Table 18: Comparative analysis of labour costs in selected countries of the Asia-Pacific region

Apparel Manufacturing Labour Cost in 2008	
Core Asian Import Supplier Base	
In USD per Hour-Including Social Charges	
Countries	Labour Cost
	USD/Hour
Bangladesh	0.22
Cambodia	0.33
Pakistan	0.37
Viet Nam	0.38
Sri Lanka	0.43
Indonesia	0.44
India	0.51
China Inland	0.55–0.80
China Coastal	1.08
Philippines	1.07
Malaysia	1.18
Thailand	1.29–1.36

Source: www.emergingtextiles.com

An estimate of the total payroll for the garment industry in 2011 is USD390 million. This estimate is computed with data from the report titled Factory Level Chain Analysis of Cambodia's Apparel Industry (USAID, 2007). Since the share of industry in GDP is 21 per cent and the share of services is 42 per cent, we can roughly estimate that the payroll for companies in the service sector eligible for training tax (hotels, banks, etc.) is at least of the same amount. If we estimate that the payroll is the same for tourism, we arrive at an overall minimum estimate of USD800 million for registered companies eligible to training tax. Table 19 provides a sensitivity analysis for the estimation of revenue from the potential levy on payroll. The rates used are based on international experience (see Johansen and Van Adams, 2004; Johansen, 2008).

Table 19: Sensitivity analysis for payroll revenue

Total payroll (USD)	Potential revenue from a payroll levy (USD)			
800,000,000	0.50%	1%	1.50%	2%
	4,000,000	8,000,000	12,000,000	16,000,000

Source: Authors' estimation.

This analysis provides elements for national discussion. As pointed out by Johanson and Van Adams (2005, p.149), levy-grant schemes can be successful but also demand considerable capacity to administer, and care has to be taken to avert a tendency toward reduced effectiveness over time.

3.6 Access and Participation

Short non-formal training programmes for the enhancement of rural incomes continue to be a major part of on-going TVET provision. Most of these are provided through the Government's 22 PTCs, with a total number of about 20,000 trainees on average per year from 2006 to 2008 (ADB, 2011). The VSTP provided further assistance, in the period 2006–2008, in short rural basic skills training for income supplementation for some 100,000 trainees, of whom 60 per cent were women (see Table 20).

At a policy level, the 2011 Circular on Quality in TVET outlined the intention to continue to implement the principle of equity in training by giving priority to women, persons with disability, disadvantaged people, poor youths and dropouts so that they can develop skills and contribute to and participate in broader society. To this end, a commitment has been made to introduce priority measures such as scholarship programmes and establishment of dormitories for these target groups. Another aspect of TVET policy is to support short-term, non-institutional courses determined by the communities, delivered on-site using existing facilities and provided by NGOs with experience or existing involvement in the commune.

One strand of the National TVET Development Plan (NTDP) 2006–2010 sought to respond to social equity issues by assisting the poor to master skills which enhanced family income through better productivity or basic self-employment. For example, VSTP as well as NTF focused on poverty reduction by developing programmes for the poorest communes designed to provide basic income-generating skills based on local needs.

The NTDP also sought to encourage commune-based skills training in micro-enterprise management. A list of self-employment ideas were to be taken to communes and an assessment of local market opportunities was to be carried out. Communes would then be advised to use enhanced farm productivity, self-employment and family-based employment as the planned outcome of most training in the training plans. To be effective, it was felt that training for self-employment must be linked to provision of micro-credit.

The NTDP also facilitated the development of a programme to assist small, rural enterprises to expand training through informal apprenticeships. The programme was to assist in developing training strategies and introducing appropriate technology. Community development specialists in each PTC were to be trained to assist small enterprises in developing informal apprenticeship programmes, with the NTTI developing competency standards in small enterprise development.

Table 20: Number of VSTP graduates, 2008–2009

No.	Province	No. Districts	No. Communes	Commune based Training			Enterprise Based Training			Centre Based Training			Grand Total		
1	Battambang	7	29	4,054	2,212	6,266	200	39	239	161	46	207	4,415	2,297	6,712
2	Kampot	8	32	3,872	2,771	6,643	66	182	248	74	139	213	4,012	3,092	7,104
3	K. Chnang	8	26	3,261	2,222	5,483	72	72	144	63	82	145	3,396	2,376	5,772
4	Siem Reap	9	39	5,950	2,276	8,226	79	58	137	138	157	295	6,167	2,491	8,658
5	Stung Treng	5	14	2,115	825	2,940	52	38	90	43	38	81	2,210	901	3,111
6	Svay Rieng	7	31	3,500	2,983	6,483	36	113	149	102	148	250	3,638	3,244	6,882
7	Takeo	9	39	4,315	3,911	8,226	101	95	196	121	115	236	4,537	4,121	8,658
Grand total		53	210	27,067	17,200	44,267	606	597	1,203	702	725	1,427	28,375	18,522	46,897

Source: DGTVEF.

In addition to access, the key policy issue is to improve the quality of provision. It may be appropriate to develop relevant mechanisms to assure quality in the range of programmes implemented. This should happen alongside efforts to enhance capacities for planning, management and monitoring of training delivery.

3.7 Curriculum

The curriculum is a key policy instrument in education and training processes. In the MoYES, the new Curriculum Framework for Secondary Education will constitute the main reference document in the years to come. It is expected to provide comprehensive guidelines with regard to why, what, how, and how well students should learn. For instance, it will outline ways for improving assessment strategies; school and classroom management and teacher education and training.

In TVET, as presented earlier, the NTTI is responsible for curriculum development. The NTTI is part of the MoLVT. It is staffed primarily by people with higher education expertise and/or previous experience in the TVET system. In reality, according to NTTI's management, the Centre is not directly responsible for leading work on the new curriculum. The MoLVT has set-up an ad-hoc committee working on the curriculum with ADB experts. So far, overall coherent curriculum reform has not been implemented.

The TVET strategy, particularly its second strategic axis, (improve the quality of educational and training process) considers the curriculum instrumental for the improvement of TVET's responsiveness to the labour market. The TVET strategy is introducing a policy focus on 'pathways' with continuing training and career guidance policies "allowing sustainable paths of education and learning in order to provide opportunities for lifetime vocational and career improvement". Nevertheless, the UNESCO mission and discussion with several stakeholders reveal a trend towards a more demand-driven TVET system, in which a competency-based approach and modularization are key building blocks for improving the flexibility of the system and, potentially, for increasing the learners' possibilities to select learning pathways according to their needs. This shift is supported by the ADB-funded SVET programme.

The curriculum reform agenda in both ministries (MoYES and MoLVT) can be assessed as follows:

- i) The MoEYS is now concerned with implementing a reform of the upper secondary curriculum. However, there is still a number of concerns that need to be addressed. For example, the UNESCO team discussion with the Curricula Design Department under the MoEYS suggests that the new curricula are quite academically driven, with perhaps insufficient variety of innovative pedagogical approaches, including the use of ICTs. Related to that, there has been no organised piloting or micro-testing of the curriculum in schools. Moreover, it would appear, from a financial standpoint, that there has not been a comprehensive assessment of the total cost of ownership (TCO) of the new curriculum or the costs of delivering it in terms of facilities and infrastructure (including resource centres) or the assumed minimum requirements for running laboratories, libraries and providing other teaching and learning equipment and materials. In addition, it would appear that there is no clear strategy for evaluation of curricula implementation. The UNESCO team did not find any evidence of sound design and implementation of a monitoring and evaluation system, which would include key indicators, responsibilities and reporting lines to measure the effectiveness of the curriculum.

ii) The MoLVT is also developing and implementing competency-based curricula in the framework of the ADB STVET project. However, there are several challenges that the MoLVT need to address for effective design and implementation of these new curricula:

- The ADB-funded SVET programme has launched an innovative model to develop curricula relevant to labour market needs. To ensure ownership, NTTI needs to be in charge of curricula development and involve representatives of enterprises. The curricula have been designed according to labour market needs: starting by developing a definition of a job profile (defining the skills of a competent worker) and deriving from it a modular training plan including in-company training. Implementation and 'institution re-engineering' is also taking place. The latter, however, is proving difficult due to the constraints of vocational institutions and the absence of a management with capabilities in this area.
- The MoLVT is not considering affordability or sustainability of the curricula developed. Every curriculum comes with a price ticket and yet it seems that ongoing work does not factor in cost implications at the design stage, thus risking failure to achieve the desired outcomes. Common cost components of curriculum reform cover: (i) teacher training and incremental salary costs to motivate teachers to adopt new curriculum and methodological requirements; (ii) the provision of facilities and equipment such as workshops, ICT facilities, libraries which incur initial investment, periodic replacement cost and annual recurrent costs; (iii) the cost of consumables (raw materials, ICT consumables, etc.); (iv) operational overheads (electricity, internet access costs, etc.); (v) equipment replacement costs (requires policy on assumed equipment life); (vi) materials development costs, e.g. new generation of print and e-materials needed to serve new curriculum specifications and outputs.
- Although the NTTI is supposed to become the institutional home for the curricula design function, the discussion with its management shows that it is not in the driving seat and that the capacity development in curricula design as supported by the ADB project is outside of the institution's sphere of influence. In addition, the NTTI is clearly busy with teacher training, alongside managing the provision of initial TVET at post-secondary level. Neither the capacity nor the expertise is available to support the upgrade of TVET institutions, action research or labour market analysis. In reality, as evidenced by the absence of a working relationship with the Phnom Penh Polytechnic, developing this function is not one of NTTI's priorities. The weak role played by the NTTI is reducing the capacity of the MoLVT for monitoring and evaluation of curriculum implementation in line with agreed quality criteria. It also weakens the capacity of the NTTI to support curriculum implementation and decentralization. In fact, decentralization of implementation does not mean the disappearance of the national level: the role of the NTTI in a decentralised system should be stronger, not weaker.
- It would appear that there has not yet been an intention to develop a comprehensive assessment of implementation costs for both investment facilities and infrastructure, including laboratories, and other teaching and learning equipment and materials, as well as recurrent costs like consumables. The announced emphasis on competencies will require new profiles for teachers and the availability of adequate TVET workshops, including ICT facilities. There needs to be careful analysis of recurrent costs impacts.
- The new curricula cannot be implemented without the full commitment and wide involvement of teachers and trainers. Policies for curriculum reform should, therefore, include measures to ensure the involvement of social partners and enterprises in different phases and should also reinforce the capacity of vocational institutions to support their teachers and trainers in order to gain their interest and adherence.

- There is also a need for clarifying the mandate and responsibilities of NTTI, MoLVT, TVET institutions and PTCs. For example, the NTTI's mandate does not include the requirement to support TVET institutions in improving their service delivery.
- Finally, it is important to consider the accreditation of institutions and programmes as part of placing TVET providers in a virtuous cycle of quality improvement. The self-assessment and accreditation of institutions and programmes should be an opportunity for VTCs to develop and to improve the quality of their programmes. Among the PTCs and institutes, several will be upgraded in coming years, mainly through the support of donors (ADB, the Qatar Foundation, etc.). Those institutions might be ready for accreditation. Others including those in the private sector that are not ready and will need greater support to meet the required quality levels.

3.8 Pedagogy: Teaching-Learning Processes

The claim of emerging pedagogical practices was not corroborated with clear evidence of more active pedagogy in the TVET institutions visited by the UNESCO team. These findings are, however, limited in scope due to the limited field visits undertaken.

Crowded training classes and workshops in poorly equipped facilities and under-funded institutions do not allow for active pedagogical methods and approaches. In several institutions visited, teachers lacked teaching materials and/or did not appear to use them. The team did not see evidence of learner-centred approaches. For example, students in the carpentry course visited were part of a passive learning process, one of “doing simple and routine tasks” rather than participating in interactive and experiential modes of learning.

In some of the NGO programmes visited (PSE and CKN) there appeared to be some efforts in making learning more group-based and experiential. NGOs seem closer to addressing labour market needs through their engagement with community problems (CKN) or by using work-based learning (PSE).

Substantial change in the pedagogical approach is still to be achieved. Among the various factors determining the successful implementation of competency-based reform is the empowerment of teachers and the support they receive at school level. Even if adequate teacher training is provided, other institutional and organizational constraints have key implications for effective teaching-learning processes.

For example, competency-based and learner-centred approaches adopted at national level require resources and teachers' capacities at operational levels. These do not seem immediately available in the TVET institutions visited by the UNESCO team. The capacity of teachers, as a team, to play a role in the development process is weak and unorganised (except in the Phnom Penh Polytechnic and in some NGO programmes). This implies that teachers have yet to understand and to be convinced that the proposed model will work and will address their basic concerns regarding infrastructure, curriculum, quality of learning and their career development.

In the next sections the findings on curricula will be further analysed against teacher training and institutional developments in other parts of the system (e.g. quality assurance, governance and funding schemes, guidance provision and others).

3.9 Quality

This sub-section considers the effectiveness of TVET in Cambodia in equipping those completing TVET programmes with skills for life, work and further learning. It assesses the available information about the quality of TVET inputs, processes and outputs. Particular attention is given to the fitness of the TVET system for the purpose of meeting local, national and international labour market needs. Initiatives to improve quality and standards in TVET and in the wider education system are examined in the light of international practice.

3.9.1 Systemic quality issues

The ADB (2011) report highlights a number of major challenges in extending and improving quality of provision in formal long-course TVET, which included:

- limited national access to programmes (most student places are in Phnom Penh);
- little enterprise involvement so TVET remains supply-oriented rather than demand-driven;
- no competency standards and related curriculum;
- lack of appropriate articulation with general education;
- inadequate and out-dated equipment; and
- few teachers with technical skills related to workforce needs.

The ADB (2011) report recommends a an extension of national provision through upgrading selected PTCs to Regional Training Centres to provide skilled worker and technician-level skills training (and for in-service training of PTC teachers to become more technically competent). It is also felt that there is a need for a more effective, integrated approach to skills development and training systems including: industry advisory committees to endorse skills competency standards and testing, and to advise and monitor training programme development. There is also need for more effective labour market information as a basis for planning and system development.

Most of these criticisms and recommendations are being addressed at policy level. During the UNESCO visit there was clear evidence of some progress in implementation. One of the priorities outlined in the Prime Minister's Circular on the Promotion of Quality and Effective Technical and Vocational Education and Training (2011) focuses on ensuring training quality for enhanced productivity. The components outlined do represent a shift in direction, with the most significant one being the recommendaton that the NTB shall introduce a national qualifications framework (NQF), national competency standards, competence testing, and accreditation criteria, as well as undertake assessment of the quality of training.

The latter point is significant in that attention will be paid to learning processes and not just learning outcomes.

3.9.2 Quality of teaching staff and teacher training

The process of developing new curricula and implementing them requires intensive in-service teacher training and clear mechanisms for teacher career management and incentives. A new curriculum is expected to be substantially different from the existing one, implying a paradigm shift in teaching, learning and assessment processes. Such changes present a major challenge

for current teaching staff. Massive in-service teacher training, and further support at the TVET institution level, will be needed in order to help teachers acquire the necessary skills to implement the new curricula. Practical steps have also to be taken in partnership with employers, for example to ensure that TVET teachers have a good understanding of workplace settings.

Management of in-service provision: The NTTI is responsible for teachers' professional development with a purpose of "integration of existing fragmented instructor-training courses into a national teacher education and staff development programme" (NTTI Guide Book, July 2010). This transfer of responsibility has not yet been addressed with a clear policy to channel funds from the Ministry of Education to Provincial Authorities. Challenges at the level of in-service teacher training will increase dramatically with the implementation of the new curricula.

Sustainable budget for teacher training: The discussion with NTTI management highlighted shortages of resources, both financial and expertise, to lead the work on teacher training. The Government has to ensure that in the mid- and long-term the teacher training budget will be dramatically increased and made sustainable.

3.9.3 Quality assurance

Quality assurance covers aspects related to institutions, qualifications, assessment and teaching staff. Quality assurance mechanisms are not yet formalised and, in most cases, have a far greater focus on more traditional aspects, which have come to be known as 'inputs', such as curricula, qualifications of staff, and so on.

Certification currently happens through training providers and ministries, with separate systems for each awarding ministry. This is likely to continue until national stakeholders agree on key components of an NQF and the quality assurance framework related to it.

In general, in relation to quality assurance, TVET programmes suffer several shortcomings (World Bank, 2010; ADB, 2009), (see Table 21):

- TVET is shared across various ministries, leading to major coordination and harmonization issues, as evidenced by the overlap in responsibilities for quality assurance across ministerial departments within i.e. the MoEYS and the MoLVT, for example, for non-formal TVET;
- Programmes lack quality assured certificates and recognition of those certificates in the labour market;
- The quality of training varies considerably, and small training centres and informal apprenticeship schemes often suffer from narrow theoretical knowledge, outdated technologies and an absence of formal recognition of the skills students have acquired;
- Public TVET programmes and institutions tend to be poorly funded and have little interaction with the productive sector. Their reporting tends to focus more on enrolment rather than quality assurance and outcomes.

Table 21: Overview of quality assurance processes across TVET institutions/ programmes

Institutions/Programmes	Implementation stage			
	Quality Assurance for Institutions	Quality Assurance in Qualifications	Quality Assurance in Assessment	Quality Assurance for Teachers
PTCs (long courses)	●	●	✕	✕
PTCs (short courses)	●	✕	✕	✕
CLCs	⊙	✕	✕	⊙
NGOs	⊙	✕	✕	✕
Private Providers	⊙	✕	✕	✕
Enterprises	✕	✕	✕	✕
Other Public Providers	⊙	⊙	✕	✕

Source: Authors' review

Legend: ● Developed; ⊙ Developed in some aspects; ✕ No progress or limited progress. n.a: No available information

A Quality Assurance and Monitoring and Evaluation Framework with six performance criteria and 35 performance sub-criteria has been recently by NTB. Based on the framework a self-assessment and quality audits will be undertaken.

3.10 Relevance and Impact

This sub-section examines the approaches and instruments for impact assessment developed by the Government. It analyses the impact of the TVET system in terms of efficiency, effectiveness, and relevance for individuals, employers and the labour market.

Information about training quality as well as post-training employment experiences of TVET graduates is either patchy or non-existent.

The Government has combined a series of emergency programmes (such as the Prime Minister Fund) with the development and implementation of long-term education and training programmes. As outlined earlier in this report, TVET programmes range from short-term training programmes of several weeks or months to education and training programmes lasting several years, including those leading to Bachelor and Master degrees.

Many of those who completed TVET courses had only received short-course training (often between one and four months). For example, according to DGVET, the VSTP trained nearly 100,000 participants. This was in line with a focus on rural skills development and the aim to reach out to those out of work on the lowest ranks of a skills development ladder. However, as such training was largely non-assessed and non-accredited there was no mechanism for judging quality of provision or of outcomes.

At the moment, the wide variation in course length and delivery modes as well as the lack of assessment and quality control means there is no way of monitoring what skills course graduates can be expected to demonstrate.

The short-course training in basic, entry-level or self-employment skills (e.g. in construction, home wiring, small engine and pump repair etc.) provided in PTCs or in CLCs could be more or less useful depending on opportunities in the local labour market and individuals' future plans, as well as upon the quality of the provision itself. Moreover, based on UNESCO's team visits, there appears to be some overlap in training offered by PTCs and CLCs.

At the micro level, there is also little follow-up information about TVET graduates. An ADB (2009) survey of the post-training experiences of VSTP course graduates has been conducted. According to the survey, more than 50 per cent of VSTP programme graduates reported that their income had increased by at least 15 per cent. However, rigorous evaluations of other programmes have not yet been carried out.

The lack of evidence on labour market outcomes in terms of income supplementation, self-employment or employment is problematic for TVET programme decision-making and planning. The absence of reliable and robust evidence of the impact on the range of programmes hinders the ability of decision makers to better coordinate, prioritize and scale-up or reduce the concerned programmes.

Part 4: TVET Links with the Labour Market

This section examines the links of TVET with the labour market and the challenges to respond to labour market dynamics. It outlines the key arguments in recent years that have been used by policy makers seeking to combine workplace experience with formal classroom-based learning: improved youth pathways, economic and productivity benefits, improved pedagogy, and efficiency of vocational education systems. It draws lessons from international experiences to inform national discussion. It also looks at labour market information systems and available instruments and approaches, and it assesses available capacities to ensure relevance to labour market and inform decision makers.

4.1 Employment and Career Guidance Services

Employment and career guidance services have recently been established with the support of ADB and ILO. The ADB (2009) review of the skills development system in Cambodia highlighted the importance of employment services and career development and guidance (CDG). The report argues that students often seem to choose courses based on their conceptions and aspirations rather than on job opportunities, and apparently without obtaining informed advice. At the time of writing, there were no employment services and few CDG programmes were available in TVET institutions. The same report also argues that the establishment of job shops under a National Employment Agency (NEA) would provide an information base where employers could announce their hiring needs, and provide new graduates, out-of-school youth and the unemployed with information. In the longer term, it was envisioned that an NEA could also offer job placement, services and information about occupational health, workplace safety, skills retraining and overseas placement services.

The subsequent setting up of the National Employment Agency (NEA) in the 2009 was a key moment in getting employment and career guidance services organised on a much more secure footing. The key functions of NEA are:

- Coordinate and organize to allow for the dissemination of employment and labour market information and technical and vocational training services;
- Provide effective information services to job seekers, employees, employers, training providers and the general public in an open manner and to bring together all relevant stakeholders through NEA's publications and various other programmes;
- Study, research and develop the labour market information system to proportionally suit the current and future economic growth;
- Boost publications on employment, labour market information, technical skills and vocations via NTB's website and other reliable methods;
- Cooperate, coordinate with ministries, institutions, development partners and civil society organizations who need workers, technical and vocational skills in order to propose feasible recommendations to NTB;
- Provide accurate labour market data as a base to assist the Government in managing human resource development plan and a functional labour market, which is meant to contribute to achieving the strategic target of poverty reduction through education, TVET and job opportunity creation for the citizens.

Job shops have been established giving employers a forum to announce their hiring needs. Job shops also cater to the needs of those who drop out or complete school, college or university, as well as youth and other members of the workforce who wish to obtain information on work opportunities (see: www.nea.gov.kh).

4.2 Labour Market Information System

At the moment there is no integrated statistical system on the labour market in Cambodia. A *prakas* (sub-decree) signed by the Vice Prime Minister on October 2008 set up a Subcommittee of Labour Market Information. The *parkas* established the roles and duties of the offices of labour market information and labour statistics in the Department of Labour Market Information of

the DGTNET. The office must collect and compile available labour market information, analyse collected data, conduct surveys to identify priority jobs, provide labour market information service, etc. More recently, in 2009, under the NTB (see: NTB structure in Figure 1 in section 3.3 above) a sub-committee on labour market information has been established. The sub-committee's key mandate is to design and implement a labour market information system. The NEA is taking the lead in organising the work of the sub-committee. In this framework, NEA now has the responsibility to collect information on the labour market. But the staff are still developing the NEA's organizational capacities, with the assistance of the ILO, and the production of information which deals mainly with current vacancies, job seekers and programmes/courses.

Additional information is collected by the Department of Planning, Statistics and Legislation of the MoLVT. The available information covers the number of trainees enrolled in each public TVET institution, but without any data on the characteristics of the trainees and their employability. Moreover, no information is available on the private TVET providers.

Finally, the ADB STVET programme (2010–2013) is taking an occupational sector-by-sector approach to define occupations standards, allowing for sector prioritization (with an initial focus on engineering mechanics, construction and ICT). The key deliverables is rather qualitative data, allowing for the development of competency standards, training and assessment packages.

Available instruments in the labour market information system in Cambodia might be characterised as first and second generation measures of skills and institutional arrangements. Table 22 provides a detailed outline of such approaches. First generation of labour market information contains the following features: it focuses mainly on supply-side characteristics, rely on administrative records or standard labour force surveys as data sources, and includes indicators for which data are routinely available. Indicators in the second generation provide a more nuanced picture. The focus is broadened to include: demand-side factors (e.g., composition of the economy, growth rate, wages trends, returns to education and training, time to fill a vacancy, etc.). As interest in skills development continues to grow, there is a corresponding intensification of interest in what might be called the third generation of labour market information and skills indicators, ones that are closely aligned to measure matching skills. Building on the first two generations of indicators, the defining features of the new indicators include: a broader focus on the match between jobs and skills, measurement of the skills possessed by the stock of the workforce, not just those about to enter it, and reliance on new survey instruments designed specifically to generate the new data.

Table 22: Overview of LMI instruments and institutional arrangements

Labour market information and measure of skills	Institutional arrangements	Focus	Data collection tools and mechanisms	Set of indicators
First generation	Informal organization characterised by the fact that no institution is responsible for labour market information system.	Focus mainly on supply-side characteristics.	Rely on administrative records or standard labour force surveys as data sources. Existing information are generally unreliable even where ad-hoc studies have been carried out.	Include indicators for which data are routinely available.
Second generation	Institutional organization, in this case institutions and bodies – inside or outside the respective ministries – have been given responsibility for the systematic monitoring of developments in the employment market and/or in the education and training system.	Broaden the focus to include: demand-side factors.	The use of direct measures of the literacy and numeracy skills of youth who are on the cusp of entering the workforce (e.g. the OECD's PISA test scores for 15 year-olds); and data from new sources, including the World Bank's Investment Climate Surveys.	Composition of the economy, growth rate, wages trends, returns to education and training, time to fill a vacancy, etc.
Third generation	Network generation, permanent networks are created, with varying degrees of institutionalization and coordination between the institutions and the bodies producing information, as well as between the main parties involved in the education, training and employment systems.	Broader focus on the match between jobs and skills; measurement of the skills possessed by the stock of the workforce, not just those about to enter it.	Reliance on new survey instruments designed specifically to generate the new data.	Indicators on the <i>efficiency of matching skills</i> .

Source: Adapted from G20 Development Working Group.

The present Cambodian system is close to a first generation orientation. For instance, different ministries and institutions are collecting, processing and producing information on the labour market, education and training systems. Most of this information is administrative and/or ad-hoc. However, the system incorporates elements of a second generation focus in that the NEA is now in charge of leading the work under the NTB. In addition, a labour force survey is in preparation supported by the ILO and is expected to be conducted in 2011. At the same time, the new strategy, particularly its last component, seeks to advance the system towards the third generation. For instance, the MoVLT action plan to implement the Rectangular Strategy Phase II 2009–2013, priority 4, aims at developing a labour market information system through (p. 29):

- Creating a mechanism to obtain job market information by setting up the NEA through the NTB;
- Expanding the group to study training needs and work, at national level and in each educational institution;
- Studying and analysing training needs to respond to current and future job market needs;
- Developing the labour market information system.

Using the aforementioned framework, Table 23 provides indicators that hinder Cambodia from setting up a relevant labour market information system and skill measuring framework. It will be vital to harmonise information collection and analysis across providers.

Table 23: Implementation of key issues across three generations of approaches to LMI

	Source of information		
	First generation	Second generation	Third generation
Policy focus	●	⊙	⊙
Institutional arrangements	n.a	⊙	⊙
Availability of tools and instruments	⊙	⊙	✕
Available indicators	●	✕	✕

Legend: Aspects which Cambodia: ● Has already implemented; ⊙ Has implemented in some respects. ✕ Has made limited progress; n.a No available information

Source: Authors

4.3 Public-Private Partnerships

Public-Private Partnership (PPP) is considered as an important institutional set-up to improve the quality and relevance of TVET. There are several organizations that can play an important role in developing a sound PPP in Cambodia. These organizations are acting at national and sectoral levels.

Cambodian Federation of Employers and Business Associations (CAMFEBA) is an overarching body representing and safeguarding the rights and interests of employers in terms of labour issues. Garment Manufacturers Association of Cambodia (GMAC) is an employers' organization of the apparel industry.

UNESCO team meetings with CAMFEBA and GMAC indicate that, overall, enterprises and their representatives hold a considered view of the context necessary for long-term human resource development and the requirements for the creation of a successful economy.

CAMFEBA's work on youth and employment is good evidence of employers' strategic interest in human resources development. CAMFEBA is an overarching body representing and safeguarding the rights and interests of employers regarding labour issues. CAMFEBA also acts as a training provider with a view to: (i) assist employers in strengthening their competitive edge through skills training and employee development; (ii) provide employers with a comprehensive range of practical, generic and customised training and development programmes for employees' skills upgrading; and (iii) update employers on the latest developments in human resources and industrial relations management.

GMAC identifies one of its missions as applying pressure on the Government to deliver an employment sector policy with more relevant programmes and appropriate certification. The association is planning to take a loan from the French development agency to set up a private vocational training centre focused on textiles and garments and with a strategic objective to develop skills which allow learners to move up the value chain.

Representatives of CAMFEBA and GMAC sit on key national committees related to TVET such as the above mentioned NTB's committees on skills standards and testing, accreditation, the Labour

Market Information System, etc. However, both organizations were critical of inertia and lack of dynamism on the part of the NTB and emphasised the importance of further enhancing the participation of employers' organization in the decision making process in the field of TVET.

Site visits to TVET institutions made by the UNESCO Team, as well as several reports point to the weak links between TVET institutions and enterprises. However, there is evidence of increasing effort to engage the private sector and, specifically, employers' representatives in dialogue on TVET. There are some examples of good practice in the way the Phnom Penh Polytechnic collaborates with employers on defining skill development needs in order to inform curriculum development as well as devising individual development plans for interns and new employees.

However, it has been recognised (World Bank, 2010; ADB, 2009; ADB, 2011) that the shift in attitudes and practices is not yet achieved. The absence of representatives from employer's organizations in the team charged with developing the NQF shows the difficulty in building public-private partnerships.

The concept of public-private partnership is not simply a question of a government or a ministry consulting with employers. Instead, the ministries have to step back from taking all the decisions as suppliers of TVET. They have to develop a more participative approach in which the knowledge and skills of the world of work (demand side) are brought to bear on the reform of TVET institutions, qualifications systems and curricula.

By the same token, other stakeholders have to actively and conscientiously take on a share of responsibilities that previously were left only to the Government. For example, employers need to be engaged with as skills providers. As proposed by UNESCO (forthcoming) this may well include one or more of the following roles and responsibilities (see Box 3).

Box 3: Potential role and responsibilities of social partners

Potential role and responsibilities of social partners
• Engage as a stakeholder in the development of national, sector or local policies that link economic and social objectives to renewed TVET; • Improve training provision at a firm or sectoral level; • Assist in the establishment of funding mechanisms, for initial TVET or continuing training, that recognise the role of the government, employers and the individual learner; • Participate in the development of a national qualifications framework, or a sectoral framework; • Join the board or management body of an institution charged with carrying through reforms, such as the development of new or reformed qualifications; • Determine efficient methods for identifying occupational skills and standards to serve as the basis for education and training standards; • Participate in pilots, initiatives and innovation; and • Support reformed TVET through involvement in provision of work experience and on-the-job training; development of bespoke aspect of curricula and programmes of study; conducting partial assessment of learning outcomes; support for career guidance; membership of school boards. (Leney 2010 – tabulation for ETF, previously unpublished)

Source: UNESCO, forthcoming.

4.4 Workplace Learning: Apprenticeship

Apprenticeship is defined and regulated by the Cambodian labour law. Article 8 defines apprentices, in the same way as in most countries: “ ‘Apprentices’ are those who have entered into an apprenticeship contract with an employer or artisan who has contracted to teach them his/her occupation; and in return, the apprentice has to work for the employer according to the conditions and term of the contract.” Chapter III and its 14 articles are exclusively dedicated to apprenticeship. Article 57 stipulates precisely that “Any enterprise employing more than sixty workers must have the number of apprentices equal to one-tenth of the number of the workers in service of that enterprise.”

DGVET has oversight over formal sector apprenticeship programmes. By law, all Cambodian establishments that have 60 or more workers are obliged to take on an additional 10 per cent of people as apprentices, or pay 1 per cent of their wages bill in lieu. There is no information regarding the quality of the apprenticeship scheme, whether participating enterprises are able and willing to provide quality training or whether they are only participating because they are obliged to do so. There is no information either on whether apprentices are retained by their employers once they have completed their indenture, whether they get jobs in the same occupations elsewhere, and what wages they receive during and after their training (ADB, 2011).

According to information provided by the Department of Labour Market Information (see: Table 24), only 92 enterprises had apprentices in 2010. The total number of apprentices was 5,569, mainly women (92 per cent). The large proportion of women apprentices suggests that these enterprises are mainly from the garment sector. Since data on enterprises do not identify those with 60 workers or more, we can refer to enterprises with 50 or more workers, or with 100 or more workers. The proportion of enterprises which comply with the law on apprenticeship lies between 6.4 per cent and 13.3 per cent. The proportion of apprentices is between 1.3 per cent and 1.5 per cent of workers. This rate is well below the official ‘regulatory’ proportion of 10 per cent. Officers of the MoLVT admit this reality but argue that companies are reluctant to comply because of concerns about their overall costs.

Table 24: Development of apprenticeship in Cambodia

Number of enterprises which have apprentices	Number of apprentices	Number of registered enterprises		%	Number of workers	%
92	5,569 (92% women)	>50 workers	1,439	6.4%	421,912	1.3%
		>100 workers	692	13.3%	372,765	1.5%

Source: Report on Labour Market Information, 2010.

International experience shows that learning through work is a central and, perhaps, most salient element of technical, vocational education and training, explicitly enacted through apprenticeship type arrangements, and implicitly through workers’ learning across their lengthening working lives. In some enterprises such as the ACLEDA Bank, employers seem to be more aware of of the potential of and more interested in workplace learning than TVET providers. In reality, very few training providers (mainly NGOs) are using the workplace as an important component of the learning process.

In most of the public TVET institutions visited by the UNESCO team, some training programmes are organized according to occupations, which could be learned (at least partly) in a more efficient and appropriate way in the workplace such as carpentry, hair-dressing, sewing, and others. Such categorization would also have the potential to ease the transition from school-to-work for young people, allow for better quality of learning in some cases, reduce the pressure

on government budgets and provide policy makers with the option to allocate funds more effectively. The carpentry programme in one of the VTC visited by the UNESCO team is a case in point. To produce chairs, learners were asked to repeat specific tasks while the teacher was lacking materials. Learners were not given any information on costs, clients' expectation, issues related to stocks, deadlines, etc. In contrast, a more productive example is the Centre Kram Ngoy (CKN) which is engaged in a rural electrification project. There teachers are implementing the project and learners are involved in the work and the local community needs.

Through engaging in work activities, individuals secure the conceptual, procedural and dispositional occupational knowledge required for their work, as well as elements that are adaptable to other circumstances where that occupation is practised (Billett, 2001).

At present, in Cambodia, there is a growing demand for work-based experiences to be included and integrated in post-secondary education, for example at the polytechnics, the NTTI or at university. These experiences are now seen as essential for developing skills required for entry into occupations sought after by students. VSTP's data also points to workplace learning as a less costly option compared with school-based training. Table 25 shows that the cost of enterprise-based training is only 12.78 per cent of the overall.

Table 25: Mode of delivery mapped against hours and costs of training

Mode of delivery	Training Hours/ Training Modality (in Hours)	Training Hours/ Training modality (as % of total hours)	Training cost/training modality (USD)	Training Cost/ Training Modality (as% of total cost)
Total commune-based	2,055,567	65.35	584,897	70.57
Total enterprise placement	442,634	14.07	105,921	12.78
Total centre-based	647,052	20.57	138,038	16.65
Total	3,145,253	100	828,856	100

Source: *The Voucher Skills Training Programme: The Cambodian Experience in Seven Pilot Provinces*, ADB 2009.

Policy considerations extend to making workplaces effective learning environments, as well as how to enrich these experiences through specific pedagogic practices and pedagogically-rich activities. Consideration is also required for the kinds, duration and sequencing of work-based learning within courses and the experiences provided in TVET institutions prior to, during and after students' workplace experiences. For this, work-based learning needs to be legitimised and understood more fully, its potential contributions elaborated in greater detail and the means by which it can be effectively enacted more solidly informed.

4.5 Conclusion

This section highlighted the importance of career development and guidance. The setting up of the National Employment Agency (NEA) in 2009 was a key moment in getting employment and Labour Market Information (LMI) services on a much secure footing. One function is to link job seekers with employment opportunities. Job shops have been established where employers can publish their hiring needs and school leavers, unemployed youth and others can obtain information on work opportunities.

There is now a need for synergy in the development and use of LMI, based on labour market needs and training analysis developed at local, regional, entity and national level.

Currently, there is no system of systematic career guidance in primary and secondary schools. Mechanisms for vocational guidance and counselling also need to be established at local level.

The current strategy for providing career guidance, starting at a relatively early stage, and including advice on labour market trends and initial contacts with employers about the skills they need, is a good base from which to expand provision. Materials on skills in demand can focus on skill sets which underpin a number of occupations (communication, practical and cognitive skills) as well as information on jobs. Encouraging individuals to think about their own skill sets is itself a valuable aspect of taking control of their own learning and development, as well as helping them to be adaptable when faced by changes in the labour market. The role of the NEA could be expanded in this respect.

The system could support individual skill development and job mobility as well as focus on support for long-term unemployed. The development of career profiles and pictures of how people move through the labour market over time can also help promote adaptability in the labour market.

Part 5: Vocational Orientation or Vocationalising of General Secondary Education

This sub-section examines policy directions concerned with the vocationalization of general secondary education. It discusses the rationale for the introduction of a new TVET stream in general secondary education. The section draws lessons from international experience to inform national discussion.

5.1 Plans for the Development of Vocational Education by MoEYS, March 2011

In March 2011, the Department of Vocational Orientation published a draft paper on vocational education policy. Vocational education was defined narrowly as “the systemic field of preparing youth at general secondary schools to learn basic skills in a vocational field” (p. 2). The definition focuses on forms of TVET most effective in general education.

The draft paper envisages that after completion of grade 9, students wishing to continue schooling will have two options: from Grade 10 they can either follow an academic track or a vocational track available in technical and vocational high schools. In the paper, attention is also given to vocational orientation in lower secondary education. In this context, vocational education is conceived as being divided into three fields.

5.1.1 Vocational Orientation

The first field comprises of vocational orientation which aims at helping young people orient themselves in preparation for the world of work. It comprises a number of stages, from the provision of information about possible education and occupational pathways, individual consultations and coaching to career counselling. Vocational orientation is currently planned to take place in lower secondary schools (from grade 7 to grade 9). There is a hope that it will inform school-to-work transitions and/or influence career choices.

Upgrading the quality of vocational orientation is seen to depend on the engagement of staff at a number of levels. Staff from national expert units should ideally:

- engage in professional development;
- renew study programmes in the light of increasing globalization;
- establish clear administrative structures to ensure the quality of vocational orientation services;
- encourage capacity building in TVET research;
- facilitate knowledge sharing through domestic and overseas internships;
- support the establishment of magazines or bulletins on vocational orientation;
- develop vocational management database systems;
- foster cooperation between relevant institutions, both private and public, and NGOs on vocational orientation; and
- support vocational education exhibitions.

Staff at municipal or provincial expert units should facilitate cooperation among schools and the implementation of school development plans focusing on vocational orientation education. Meanwhile, school principals should facilitate in-school vocational orientation activities, while clusters of teachers or trainers could prepare and integrate vocational orientation into their teaching subjects, encourage student discussion about vocational orientation, assess and support students' achievements relevant to vocation orientation and help orient students to the needs and skills required in different forms of work.

5.1.2 Plans for life skills education

The second field encompasses life skills education, which is broadly defined as “the technical personal capacity of reading, writing, calculating, and using personal skills from birth,” (MoEYS, 2011, p. 5). In the Policy for Curriculum Development 2005–09 (MoEYS, 2005) ‘life skills’ are more fully defined as “the intellectual, personal, interpersonal and vocational skills that enable informed decision-making, effective communication, and coping and self-management skills that contribute to a healthy and productive life in which individuals can cope with daily problems successfully.”

The policy document, Life Skills Education Policy 2005–2009 (MoEYS, 2005), defines three sets of life skills as follows. General life skills comprise topics related to personal hygiene, safety, planning for daily life, organization, relationships and being good citizens with high morals. Pre-vocational skills are those that enable students to be productive contributors in the workforce or their communities. The skills include communication and mathematical skills, problem solving and team work. General and pre-vocational skills are basic skills for all learners.

The third set of life skills relate to career skills which can be divided in two kinds. Simple career skills require short training courses and simple techniques to help learners improve their family life or income. Simple career skills are taught to all learners as part of the Local Life Skills Programme (LLSP) or in non-formal education such as tailoring, hair cutting and dressing, growing vegetables, raising animals, small-scale vending, repairing bicycles and motorbikes, producing agricultural tools, producing weaving tools, carving, traditional music, art and dance, etc. Vocational skills are those that require medium- or long-term courses and highly technical capacity building in order to equip learners for future skilled or professional occupations. Vocational skills include those related to tourism, accounting, ICT and management. These are mainly studied by students as part of the Elective Vocational Educational Programme (EVEP) in upper secondary education or in non-formal education.

Life skill education takes place from primary to high schools and is integrated into various subjects such as home economics, sports, arts, carpentry. MoEYS has plans for National Expert Units to take the lead in the modernization of the life skills curriculum and in strengthening its implementation through inspection processes. The role of school principals could include identifying and applying for funding to support life skill education from NGOs and the private sector, while teachers’ teaching, learning and assessment strategies could facilitate student engagement with life skills education.

There could be value in continuing the discussion on how life skills can be developed over time. In a country where people have such diverse experiences and which has undergone high economic growth, developing the capability of individuals to make a series of successful transitions could be a driver for further discussions. Input from stakeholders and inter-ministerial discussions may help to develop mutual understanding of the challenges and possible ways forward on a life skills agenda.

5.1.3 Plans for an expanded vocational track in upper secondary education

The third field comprises of vocational training which is offered in schools and is intended to provide basic vocational training, focusing on a social equity agenda of alleviating poverty and increasing income for poor families. There is also an intention “to lead and develop technical and vocational fields at technical and vocational high schools in terms of the need in a growing society,” (MoEYS, 2011, p. 5). The Department of Vocational Orientation of MoEYS intends to put a greater emphasis on a stronger and more widely available vocational stream in upper secondary education. It expects that study programmes could be offered in a number of subjects within eight broad clusters as follows:

- Human Resource and Agriculture Cluster: Agricultural Mechanics; Animal Science; Environmental Science and Technology; Horticulture and Gardening; Fruit Growing; Poultry Raising;
- Communication Service and Arts Cluster: Design and Visual Communications; Radio and Television Broadcasting; Architecture; Painting, Sculpture, and Pottery; Textile and Handicrafts;
- Customer Service and Business Cluster: Beauty Therapy (hairdressing, hairstyling, manicuring, make up); Fashion Design Technology; Marketing; Office Technology; Goldsmith; Jewellery; Bakery;
- Construction Cluster: Facilities Management; Cabinet-making and Carpentry; Electricity; Heating, Air Conditioning; Masonry and Tile Setting; Plumbing; Sheet Metalworking; Construction Craft Labourer;
- Manufacturing, Engineering and Technological Cluster: Electronics; Engineering Technology; Machine Tool Technology; Telecommunication; Welding; Web Design; Food and Drink Processing;
- Health Services Cluster: Dental Assisting; Practical Nursing; Medical Laboratory Technology; Paramedics; Operating Room Technology;
- Hospitality and Tourism Cluster: Banking; Culinary Arts; Hospitality Management; Tourguiding; and
- Education Cluster: Pre-school teachers; Health Studies.

The intention is to integrate vocational education into general secondary education in order to accelerate skills and knowledge development, allowing students to tackle complex problems in their chosen field. It is recognised that such a programme raises challenges in relation to finding and developing qualified teachers who have the requisite vocational skills and an aptitude in facilitating the development of these skills in others.

Only 45 students would be allowed in each class, with special access being given to disadvantaged and disabled students. The facilities and location should facilitate appropriate pedagogical processes and programmes should be offered in high schools which offer both lower and upper secondary education. These schools would become selective vocational technical secondary schools, that would use a combination of selection criteria for admission to grade 10 vocational streams. These selection criteria would take into consideration the following: academic grades; attendance record; discipline/conduct record; previous school recommendation; student interviews (to determine English proficiency and vocational skill).

The model appears, implicitly at least, dependent upon securing external funding, along the lines of existing model technical schools. The special nature of these schools can also be seen

on the basis of the variety of engagement plans with the world of work, with sufficient resources and time being allocated for students to undertake study visits; agreements between vocational high schools and private sector actors in term of finding jobs for students after graduation; good communication between schools and the private sectors; evaluation of students' performance on placement; and real work experience on work placements.

At present formal TVET provision in the MoEYS is limited to Kampong Cheu Teal High School. Tables 26 and 27 provide details on enrolments and internal effectiveness of this stream. The number of those who successfully completed the vocational programmes in the first year (2004–2005) were impressive (78 per cent). This is partly due to small class sizes, extra support and greater selectivity in the intake, which usually occurs in the first year of any programme. Table 27 shows that on average completion rates were rarely above 50 per cent for any vocational area in any year.

Table 26: Kampong Cheu Teal High School: Statistics of enrolled students by stream, gender and school year

School Year	Students of General Education						Vocational Students										Total	
	Lower Secondary		Upper Secondary		Total		Electronic		Electricity		Veterinary		Agronomy		Total			
2001– 2002	200 78	F	200 51	F	400 129	F	0		0		0		0		0		400 129	F
2002– 2003	400 164	F	320 96	F	720 260	F	40 0	F	40 2	F	40 20	F	40 17	F	160 39	F	880 299	F
2003– 2004	600 240	F	430 129	F	1030 369	F	77 4	F	68 0	F	77 36	F	78 34	F	300 74	F	1,330 443	F
2004– 2005	577 227	F	363 113	F	940 340	F	91 4	F	85 2	F	106 49	F	99 45	F	381 100	F	1,321 440	F
2005– 2006	532 228	F	336 105	F	868 333	F	40 4		59 2	F	94 50	F	71 25	F	264 81	F	1,132 414	F
2006– 2007	607 260	F	379 126	F	986 386	F	45 4	F	70 2	F	86 57	F	76 32	F	277 95	F	1,263 481	F
2007– 2008	584 275	F	419 288	F	1,003 467	F	80 0	F	93 0	F	111 58	F	87 38	F	371 96	F	1,374 563	F
2008– 2009	517 ?	F	501 ?	F	1,018 ?	F	107 ?	F	111 ?	F	91 ?	F	97 ?	F	406 ?	F	1,424 ?	F
2009– 2010	483 290	F	610 253	F	1,093 543	F	96 5	F	102 0	F	103 58	F	89 53	F	390 116	F	1,483 659	F
2010– 2011	481 246	F	612 250	F	1,093 496	F	65 5	F	105 5	F	103 68	F	86 33	F	359 111	F	1,452 607	F

F = Female

Source: Kampong Cheu Teal school statistics.

Table 27: Kampong Cheu Teal High School: Statistics of graduates (and those enrolled) in TVET by school year

	Electricity	Electronics	Agronomy	Veterinary	Total
2004–2005	27 (40)	36 (40)	30 (40)	32 (40)	125 (160)
2005–2006	17 (68)	28 (77)	26 (78)	28 (77)	99 (300)
2006–2007	17 (85)	3 (91)	28 (99)	27 (106)	75 (381)
2007–2008	13 (59)	4 (40)	10 (71)	20 (94)	47 (264)
2008–2009	40 (70)	32 (45)	28 (76)	30 (86)	130 (277)
2009–2010	31 (93)	34 (80)	27 (87)	37 (111)	129 (371)
Total	145 (415)	137 (373)	149 (451)	174 (514)	605 (1753)

(Numbers of those enrolled two years previously are given in brackets)

Source: Kampong Cheu Teal school statistics.

These figures should give pause for thought about the intention to roll out more vocational areas in upper secondary schools. Getting a job in a relevant area before the completion of a programme will often make sense at an individual level, particularly when it is accompanied with opportunities to continue developing vocational skills through access to challenging work and on-, and possibly off-the-job training. However, low completion rates undermine the idea that completion of very resource-intensive school-based vocational programmes should be a national priority at this time.

5.2 International Perspectives

During the UNESCO mission, the MoEYS expressed the interest in receiving policy advice from UNESCO regarding the relevance of enhancing vocational orientation and, related to that, the possibility of introducing a new TVET stream in upper-secondary education.

The trends and international experiences in what is called ‘vocationalization of general secondary education’ are not new. There are well referenced reviews that have synthesised international experiences and provide good mapping of rationales and constraints for such endeavour.

Lauglo (2005: see Box 4), in a review of vocationalization of secondary education, proposes three different rationales, depending on the main policy goals: personal development goals, socio-political goals, and economic goals.

Box 4: Rationales and constraints for vocationalization

Personal Development Goals: Dominant theories of general education point to the ideal of a well-rounded education. Vocational aspects also have their uses in private lives (e.g., agriculture, handicraft, domestic science, accountancy) and are part of the goal of educating the 'whole person'. Education should develop moral, aesthetic, physical, and practical capacities, not just cognitive knowledge organised in academic disciplines. Practical subjects can have the additional justification that they allow students to learn from more active 'doing' than what is typical in academic subjects. Through this perspective, the teaching of practical skills and familiarization with the 'world of work' does not need to be justified only as preparation for specific occupations. They are legitimate parts of general education and are to be introduced at 'age-appropriate' stages in a person's progression through the education system, not necessarily only in the last educational leg before labour market entry. One example is the teaching of 'life skills.'

Socio-Political Goals: A 'diversified' curriculum structure incorporating a vocational strand can be seen as a means to greater equal opportunities because it would purportedly cater for a wider range of talents and prepare for a wider range of future activity, than purely academic curricula do. This view has historically been part of the rationale for establishing comprehensive secondary schools in many countries.

Economic Goals: By teaching vocational skills, the hope has been that students would find it easier to find employment after leaving school and become more productive and trainable in the course of the programme. Sometimes the declared goal is preparation for self-employment and another is the easing of school leavers' transitions to work.

Constraints: Vocational subjects will not receive enough time and attention to give credible 'entry-level skills' given that they are only minor portions of the total timetable. Schools mainly providing general education lack incentives and resources to develop the labour market links that would help their students. Schools also lack capacity and incentives to adapt their teaching to skills needs in the labour market. It is unrealistic to expect that vocationalised education will directly prepare for self-employment. Good marks from general education may count more than vocational subjects, with employers who think of such marks as a proxy for being 'bright', 'hardworking', and able to learn on the job. Access to further training/higher education in the economic sector for which vocationalised subjects purportedly prepare (e.g. agriculture) can place a premium on academic subjects to the exclusion of any recognition for relevant vocational courses.

Working examples: International experience (for example in the United States and Mozambique) shows that external effectiveness for secondary school graduates can be better when courses are taught to greater depth and at a more advanced level, under 'better' labour market conditions.

Source: Adapted from Lauglo (2005).

5.3 Elements for National Debate

This section aims to inform the national debate and to support evidence-based policy. It is based on preliminary analysis and forecasts regarding education system performance.

5.3.1 Key policy questions

From a supply perspective, there are several key questions for national stakeholders regarding policy options for the vocationalization (or not) of general secondary education: What will the education make-up of the labour force be in ten or twenty years? How and how fast can government and private efforts improve the education levels of the labour force? What is the most efficient way to increase a particular education level within the labour force?

During the UNESCO mission, Cambodian educational leaders appeared highly concerned about the situation of young people finishing primary and secondary education without any occupational skills. Their key argument is about 'economic relevance', i.e. that occupational skills will ease the transition into work when they leave school. In other words, school-leavers need skills in the labour market to be productive and earn income. The general school curriculum does not provide sufficient occupational skills, and many school leavers are subsequently unemployed. Therefore, educational leaders consider that it is worthwhile adding a vocational preparation component to the curriculum to ease the school-to-work transition.

The ADB (2011) report, when reflecting on the implications for TVET, asked the question of whether a lack of technical-vocational skills was a binding constraint on economic growth and development in Cambodia? The answer was a categorical: 'Not at this time.' In the medium to long term shortcomings in the skills development of the labour force could become an increasingly important restriction to growth in Cambodia, as businesses grow in size and sophistication. Hence, there is a window of opportunity in trying to make sure that in the medium-term sufficient high quality technical, intermediate and craft skills are available so as not to act as a brake on economic development.

The issue of medium-term skills development needs to be addressed now due to the time lag between action and results in the education and training sector. The predominant issue will be the quality of skills development, rather than an urgent need for high numbers of people to fill immediate labour market demands. With the current relatively narrow industrial base, demand for highly skilled workers and technicians is modest at present (ADB, 2011). This hiatus gives an opportunity to work on boosting the quality of education and training as the demand grows gradually. Indeed, producing large numbers of less well-trained skilled workers could actually have a deleterious effect, in three ways: the demand for higher quality skilled workers could still be unmet, the TVET graduates could be unemployed and the future demand for TVET places could be depressed as job prospects following TVET could be seen as more problematic than for those who successfully completed more academic pathways (including graduates).

However, there is room for debate around the desirability of developing occupational skills related to particular jobs in the immediate labour market, or addressing the development of broader skill sets. This partly revolves around whether to supply skills which might support the current low skills equilibrium or to seek to develop individuals who could undertake a wider range of jobs in a more diverse labour market.

Consequently several policy options are under discussion, including changing the curriculum of secondary education by adding vocational skills useful in industry, agriculture and business. During the UNESCO team's mission the policy options were not yet clearly formulated. For example, adding some practical courses to an academic curriculum is clearly not the same as providing TVET in separate institutions or streams in parallel with academic education.

In a more recent review, the OECD (2010, p.300) makes the following distinction between secondary level programmes:

- General education programmes are not designed explicitly to prepare participants for specific occupations or trades, or for entry to further vocational or technical education programmes (less than 25 per cent of programme content is vocational or technical);
- Pre-vocational or pre-technical education programmes are mainly designed to introduce participants to the world of work and to prepare them for entry into further vocational or technical education programmes. Successful completion of such programmes does not lead to

a vocational or technical qualification that is directly relevant to the labour market (at least 25 per cent of programme content is vocational or technical);

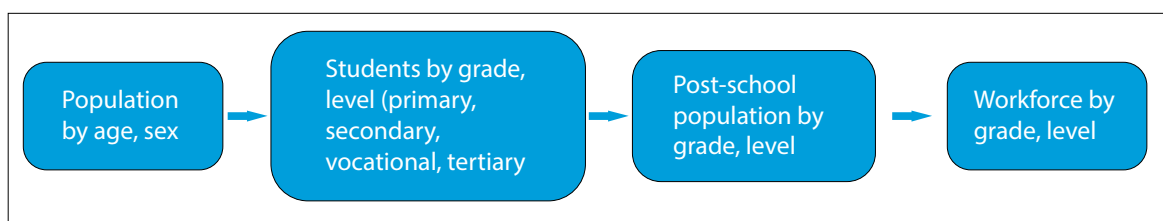
- Vocational or technical education programmes prepare participants for direct entry into specific occupations without further training. Successful completion of such programmes leads to a vocational or technical qualification that is relevant to the labour market.

5.3.2 Evidence-based analysis

To inform the national debate in member states, UNESCO in partnership with the Education Policy and Data Centre (EPDC) has developed a simulation model for the workforce. The model is composed of four main components, each of which builds on the preceding one (see Figure 3). Firstly, the overall population of a country is projected by age and sex but undifferentiated by education (the model can also project sub-national regions).

Population rate provides the overall number of people of working age – potential members of the labour force. It also provides input for the next calculations, namely, students in primary, secondary, vocational, and tertiary education. The student enrolment rate at each level is computed in the same way as a ministry of education or a school planning board would project these numbers. For each projection year, the number of students in each grade or level, from grade 1 (e.g primary) to graduate (e.g tertiary) level, is computed using intake, promotion, repetition, dropout, and transition rates between levels. At each grade, a portion of the students discontinues their education. This outflow, the school leavers, becomes part of the post-school population. The post-school population is differentiated by the highest level of education completed, as well as age and sex, and is projected with the same mortality rates as the overall population. The leavers enter the post-school population in their age, sex and highest education level group. Finally, for each projection year, force participation rates by sex, age, and education level are used to compute the labour force by education. A more extensive picture of the model and details on the calculations are provided in the appendix.

Figure 3: Four components of the workforce model – population, students, post-school population and workforce



Source: UNESCO, TVET section.

The analysis of the Education Attainment of Adults and Youth in Cambodia report presents three future alternatives for the educational attainment of Cambodia – including selected results and selected drivers. The diagrams and analysis look at the value of both developing vocational education to make it a distinct progression pathway for upper secondary school students and of improving the quality of short-term vocational training for most youth with secondary education (see Box 5 and Charts 6–8).

Box 5: Future scenarios for educational attainment in Cambodia

Scenario 1: EFA by 2020. Intake to 100 per cent, repetition to 3 per cent, dropout to 0 per cent by 2025, full transition to lower secondary; Upper Secondary and Vocational training rates constant.

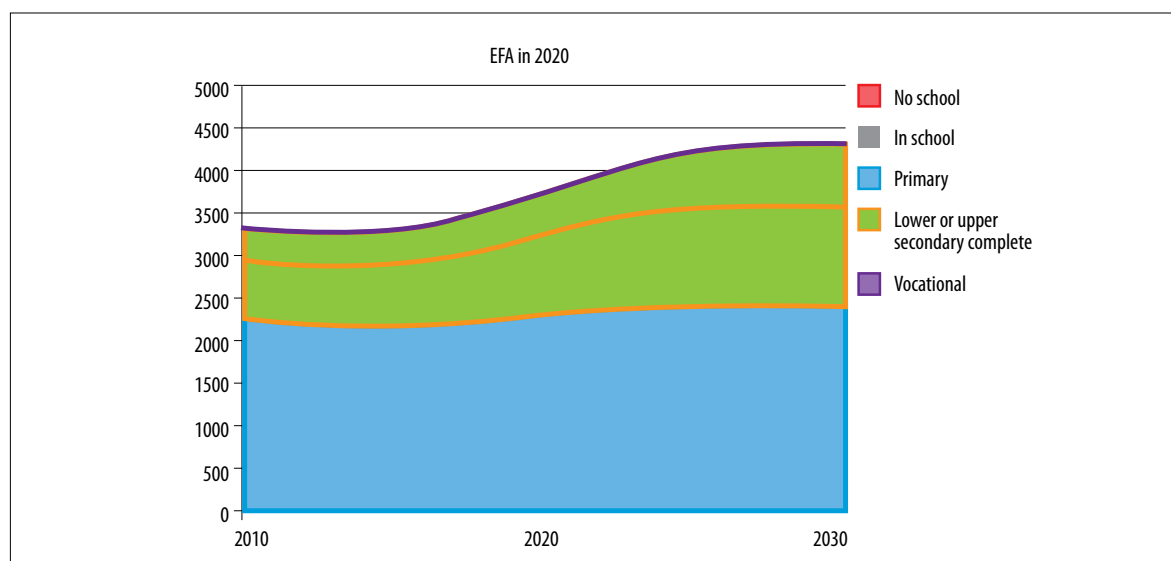
Scenario 2: USVA: Upper Secondary + VOC FOR ALL (USVA). As Scenario 1 with 80 per cent transition to upper secondary and 15 per cent to vocational training.

Scenario 3: USVA + Short Term: Provision of Upper Secondary and Vocational Education for All + SHORT-TRAINING. As Scenario 2 plus most youth with lower secondary or less receive short-term training.

Simulation of pupil numbers by level

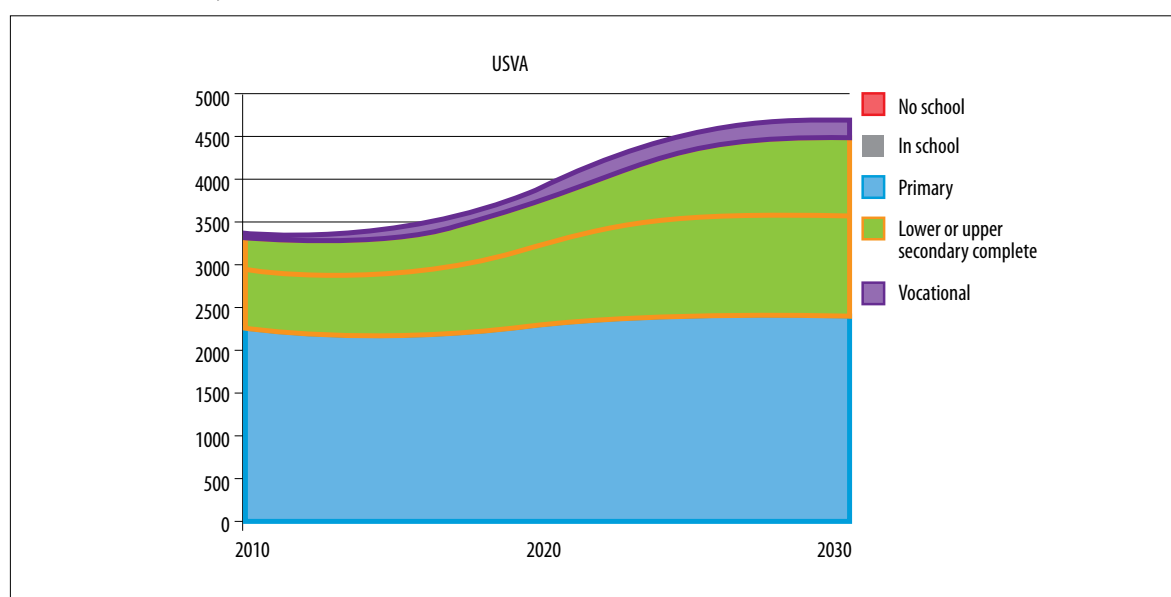
The number of pupils increases slowly over the next 20 years, with a fast rise in the 2020s as secondary education expands. In the two USVA scenarios, the number of secondary pupils doubles from approximately one million in 2010 to two million by 2030.

Chart 5: Pupils by level scenario 1 (EFA)



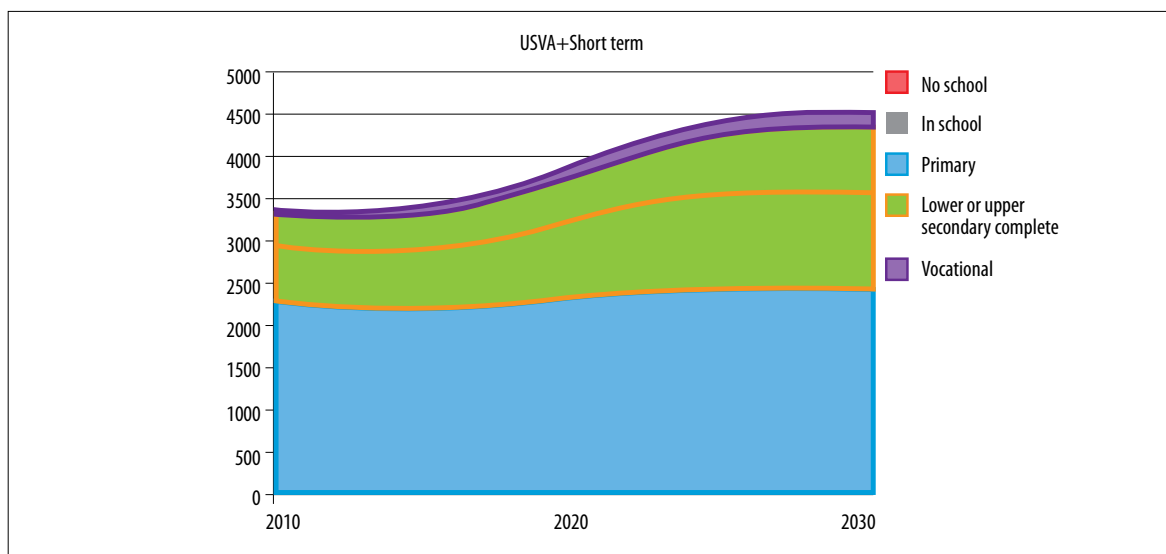
Source: UNESCO, TVET Section.

Chart 6: Pupils by level scenario 2 (USVA)



Source: UNESCO, TVET Section.

Chart 7: Pupils by level scenario 3 (USVA + short term)

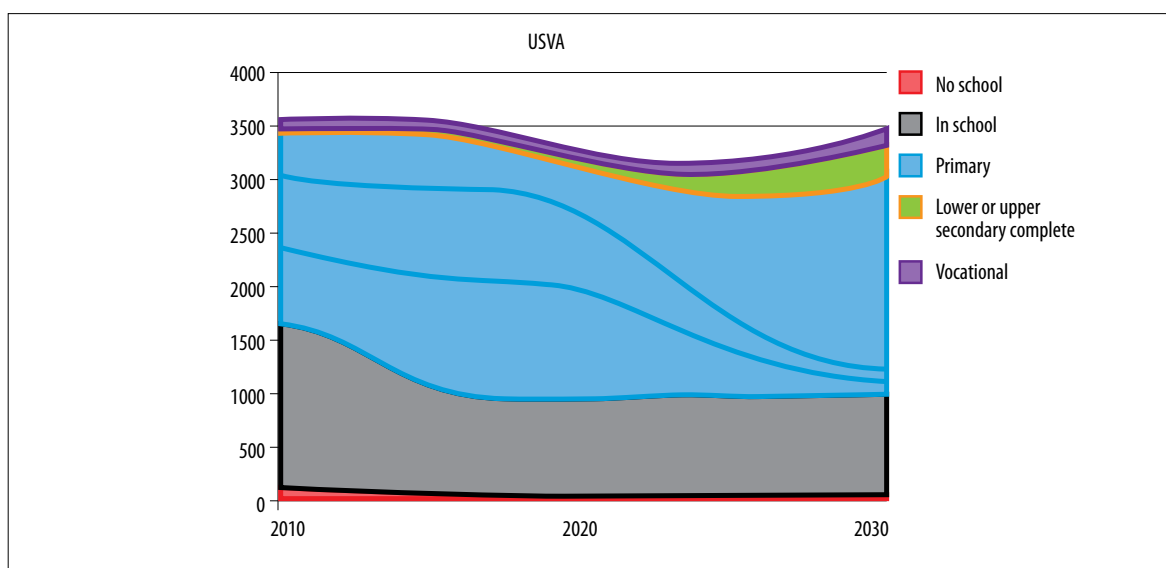


Source: UNESCO, TVET Section.

Educational attainment by youth between 15- and 24-years old

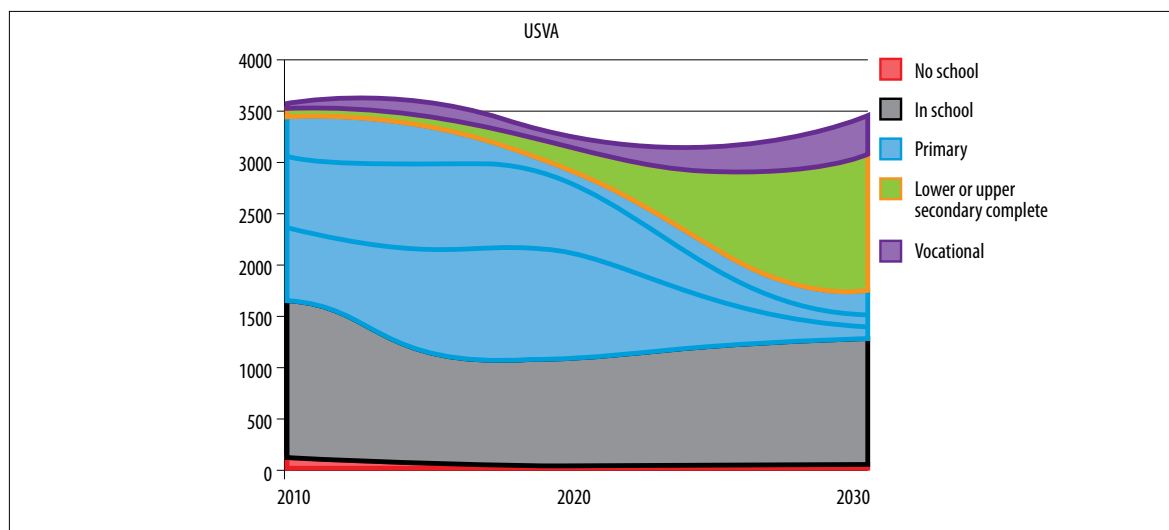
In the EFA scenario, most youths will continue to have lower secondary education or below (within this group there will be a shift from primary to lower secondary attainment); but there can occur a rapid increase of upper secondary attainment in the USVA scenario. Note: the bulge of youth with vocational training (mostly short-term) in the USVA+short-term scenario (see: Charts 9–11).

Chart 8: 15–24 Educational attainment scenario 1 (EFA)



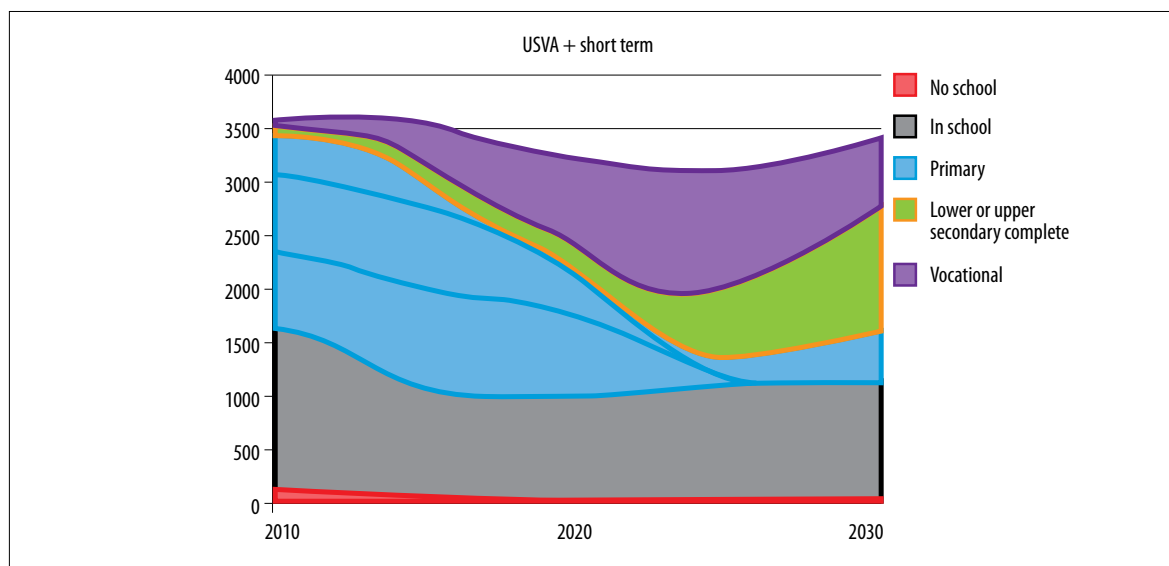
Source: UNESCO, TVET Section.

Chart 9: 15–24 Educational attainment scenario 2 (USVA)



Source: UNESCO, TVET Section.

Chart 10: 15–24 Educational attainment scenario 3 (USVA + short term)

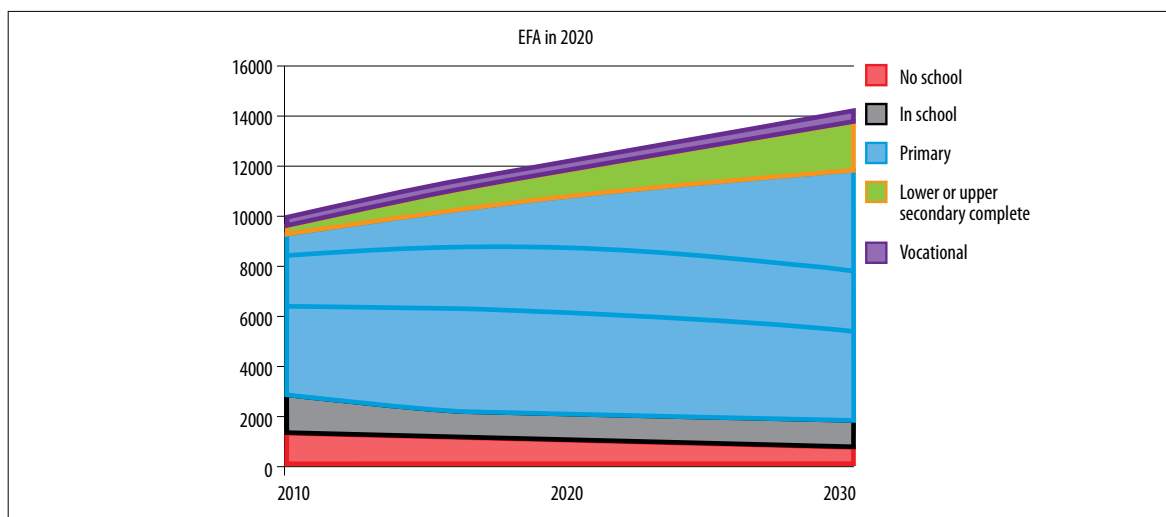


Source: UNESCO, TVET Section.

Educational attainment by adults between 15- and 64-years old

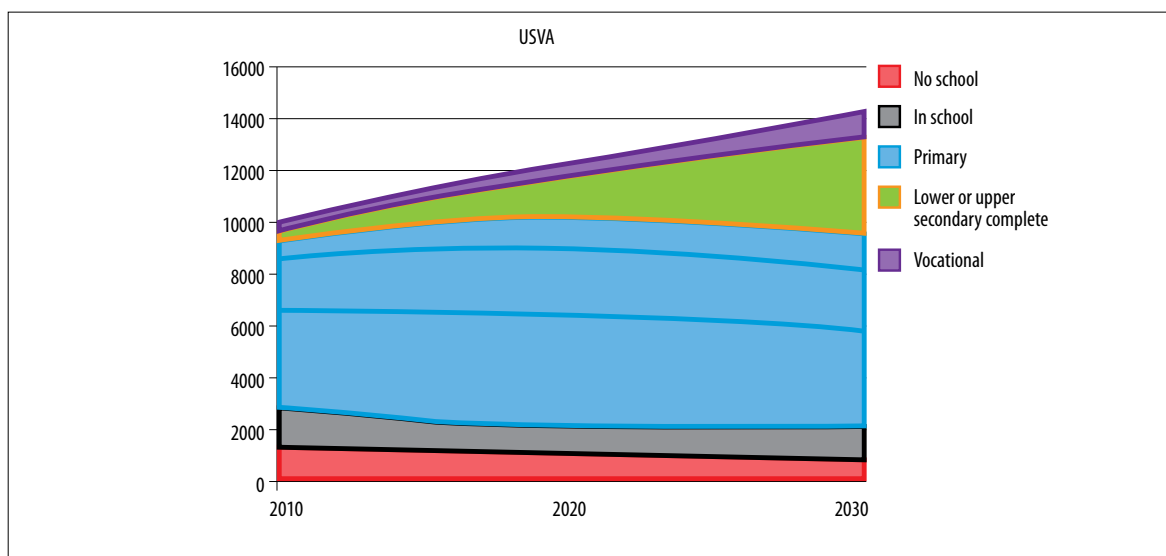
Adult education attainment changes more slowly than that of the youth. In all three scenarios, cumulative progress results in more adults attaining upper secondary education (see: charts 12–14).

Chart 11: Adults 15–64 educational attainment scenario 1 (EFA)



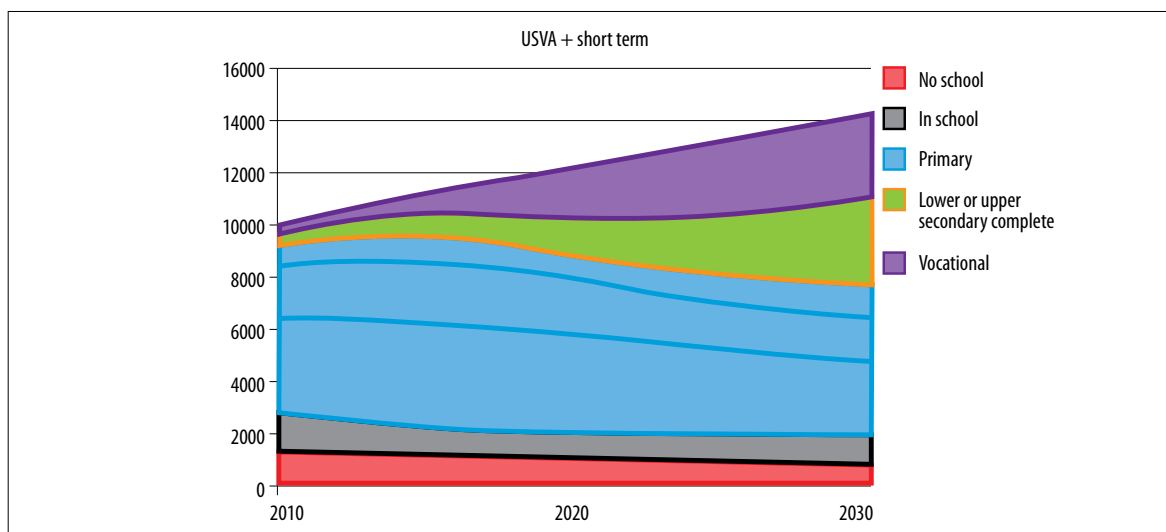
Source: UNESCO, TVET Section.

Chart 12: Adults 15–64 educational attainment scenario 2 (USVA)



Source: UNESCO, TVET Section.

Chart 13: Adults 15–64 educational attainment scenario 3 (USVA + short term)



Source: UNESCO, TVET Section.

The above presents three future alternatives for the educational attainment in Cambodia, including selected results and selected drivers. The analysis explores the value of both developing vocational education to make it a distinct progression pathway for upper secondary school students and of improving the quality of short-term TVET for most youth with secondary education. The question is, given constrained resources, should one approach be given the primary emphasis, with the other approach given secondary consideration, or should both strands be promoted, or should a phased approach be used?

The predicted continued expansion of the Cambodian labour market suggests that improving the quality of short-term TVET for most youth with secondary education or less will help to create a bulge of young people who have had skills development through TVET, as outlined in the diagrams over the next fifteen years. This bulge will be useful in meeting the requirements to fill a range of jobs with varying skill demands in the labour market, e.g. the young people's initial vocational training will mean that they are essentially 'trainable', even if they find work in an area other than that in which they received their short-term training. Improving the quality of short-term vocational training for most youth with secondary education or less, as soon as possible, and over time increasing the number of people trained looks to align with future labour market demands.

What then of plans to develop an enhanced vocational education pathway within schools? This is not quite so urgent in that labour market demands suggest. Cambodia has a little space and time in terms of demand for intermediate skills (ADB 2011). Demand in this area is picking up, but only slowly, and supply is sufficient, especially as current de facto vacancies are being filled by candidates with technical higher education (or technical or vocational upper secondary) and the transferability of some other graduates, means other places are filled. These other graduates have good communication, other 'soft' skills and can develop the requisite technical skills through training or workplace learning, especially if they enter the service sector. The more highly skilled positions, in for example construction, which are currently filled by workers from outside Cambodia, often require a combination of skills and experience and hence it will take some time before home-developed young people take these positions. However, for the decade 2020–2030 it will be important to have a strong intermediate skills base as part of a balanced and growing economy. The diagrams show that this can be in part realised through expanded vocational upper secondary education. Hence, while the short-term focus can be upon the development of short-term vocational skills, it will also be important to address the longer-term need for higher level skills development. This scenario means that MoEYS needs to explore the possible role for an upper secondary vocational stream. This avenue does not need to be rushed, however, given that it is so resource-intensive. Preparing a new stream would require at least three years to develop. It would be more helpful to implement and evaluate a few pilots to learn from experience before fully committing to this route, especially given the low completion rates from existing vocational streams in upper secondary education.

Having the initial emphasis on short-term vocational skills development will help meet immediate labour market demands, while piloting some vocational streams in secondary education would mean that this route could start contributing to the increasing demand for higher level vocational education and training from 2015 onwards. This could also be fulfilled by expanding post-school provision.

5.3.3 Policy implications

The discussion regarding vocationalization of general education illustrates the importance of achieving coherent systems of education and training. The issue at the heart of the policy debate on vocationalization is undoubtedly about 'economic relevance' and 'easing transition' to work. By providing vocational skills, the hope is that students will more easily find work when they leave school and that the new stream will have relevance and a direct labour market payoff. However, the policy discussion seems to be framed by a 'supply-driven' perspective. For example, there is more concern regarding the management, enrolment, curriculum and content of vocational orientation rather than its links with the labour market. In addition, vocationalization of secondary education is creating policy tension between MoEYS and MoLVT regarding the necessity for introducing such stream as well as who should supervise and coordinate it.

Hence, there is a need for a systematic consultative process with employers' associations, unions and civil society. In addition, there is a risk of major shortcomings regarding capacities of the government to finance and implement a high quality 'vocational orientation stream'.

Policy on vocationalization should be linked to the development model Cambodia is aiming for and operationally rooted in what schools are able to achieve. Taking into account the scarce public resources, a key policy question concerns the effective delivery of the curriculum and its affordability. Every curriculum reform comes with additional costs (investment and recurrent) and yet few curriculum reforms factor in cost implications at the design stage. This weakness often contributes to failure in achieving the desired outcomes. There is clear evidence that education in general and TVET in the MoEYS in particular are currently (or presently) under-funded and low in effectiveness. As a consequence, implementation runs the risk of being constrained by high costs and greater logistics complexity. In addition to financial resources being required, human and organizational capacities would need to be clearly identified and mobilised for any proposed development to have a chance of being successful.

Part 6: Conclusions, Recommendations and Points for Further Discussion

This report does not aim to provide precise and 'strait-jacket' policy recommendations. Rather, the objective is to point to key policy areas that require further dialogue, analysis and policy consultation. This section draws clear conclusions and makes specific recommendations. The section also highlights some areas where it may be fruitful to continue policy discussions.

6.1 Meeting the Imperative of National Coordination

The absence of continuous coordination and a strong and consistent sectoral approach is hampering institutional progress in key areas. These include identification of skills needs, provision and supervision of non-formal TVET, enhancing the strategic planning and relationship between TVET and general secondary education and organization and delivery of vocational orientation.

The National Training Board (NTB) is the over-arching body with a legal mandate to develop TVET policies and ensure coordination among ministerial departments and social partners. However, in practice the NTB has both policy-setting and oversight responsibilities such as validation of occupation and TVET standards, accreditation rules, overseeing the national employment agency, etc.

The need for fundamental change in the governance of Cambodian TVET has been a consistent theme for more than a decade. Specifically, there is a need for greater clarity of the roles of different stakeholders and the development of a coordinated system of education and training. The responsibility of each ministry, more particularly MoLVT and MoYES, in terms of provision, supervision and funding of TVET should be better defined.

Steps need to be taken to achieve a more effective balance between NTB policy mandate and the necessary oversight function such as quality assurance, qualifications and certification and funding.

6.2 Building Stronger Public-Private Partnerships

There has been a long tradition of supply-driven approaches in TVET and, in general, there are weak links between TVET institutions and enterprises. Actors on both the supply side (government) and demand side (employers) need to adapt to the need for new approaches. However, there is evidence of increasing effort being made by public stakeholders to engage the private sector and, specifically, employers' representatives, in TVET dialogue. There are some examples of good practice: for example, the National Polytechnic Institute of Cambodia collaborates with employers on defining skill development needs in order to inform curriculum development. The polytechnic also creates individual development plans for interns and new employees.

There are also important initiatives to develop curricula in partnership with enterprises as part of the ADB project "Strengthening Technical Vocational Education and Training (STVET)" which aims at supporting the Government's strategies to reduce poverty and achieve socio-economic development for all Cambodians through: (i) promotion of vocational and skills training to ensure continuing improvement in national productivity; (ii) creation of jobs in the formal and non-formal sectors; (iii) an increase in agricultural productivity to create jobs in rural areas; and (iv) the establishment of TVET networks to assist both men and women, especially the poor, disabled and vulnerable, to respond to labour market needs". More specifically, the STVET Project is supporting the Government's socio-economic development program through provision of industry-endorsed TVET system which is aligned with the basic- and middle-level skills requirements of the formal and informal economies in the three industry sectors, namely: mechanics, construction and business services and ICT.

In addition, Industrial Advisory Groups (IAGs) have been constituted for the three priority sectors of construction, mechanics and ICT/business. Expert workers from the private sector are members of the IAGs and are involved in every stage of review and validations of competency standards, competency-based curriculum and are expected to continue to be involved in critical stages in future. Furthermore, Industrial Liaison Units (ILU) have been set up in all PTCs to interact with the private sector. These units are expected to be more active in future.

There is now a need to build up employer engagement and trust at many different levels within the TVET system including governance and funding, management and delivery, qualifications, curricula design, assessment and certification. Engaging employers in the governance can be further enhanced at the national level, through the NTB by the establishment of sectoral councils. Employers can be engaged regionally or at the level of individual institutions, for example through representation in TVET institution governance. IAGs could have a more strategic role in identifying sector-based strategies for skills development and funding. They can also be involved in organizing workplace learning and assessment.

There is also a need to strengthen the role of employer associations and build their institutional capacity to participate in TVET. Good practices mentioned in this report, such as the collaboration between the National Polytechnic Institute of Cambodia and enterprises as well as the establishment of Industrial Liaison Units (ILU), should be more widely shared with education and training providers who have poorly developed links with employers. Here, the role of the National Technical Training Institute (NTTI) can be crucial by acting as a clearing house and facilitating peer learning, knowledge sharing and informing decision making.

Smaller employers are often reluctant to engage with education and training provision in any capacity. An initial focus on business improvement may be one way to raise their interest. Skills development may be seen as a second-order issue, but an important one nonetheless. Skills upgrading is already being carried out in the garment industry, with plans to move up the value chain. The opening up of the ASEAN common market in 2015 could give added impetus to such an approach.

Another way to develop employer capacities is for education and training providers to look at the quality of learning for students in, for example, beauty salons, shops, repair shops, or restaurants. Effective provision of on-the-job training may mean that the use of interns could be mutually beneficial for interns, employers and education or training providers. On the other hand, if the quality of on-the-job training is poor, this may be an opportunity for the TVET institution to offer training support for employers and staff to upgrade skills and provide more effective products or service delivery. Private training institutions in mainly urban areas are also directly involved in skills training; they could be encouraged to offer a wider range of TVET provision. These institutions may have a role in meeting demands for specific short-duration training needs, often explicitly linked business process improvement. These institutions might also be helpful in relation to training of trainers.

Actions should also cover the informal sector and rural economic activities. Further work, partnership and dialogue on the role and effectiveness of community-driven skills development would be of great importance for the quality and viability of TVET provision in these settings.

6.3 Enhancing the Quality of Teaching and Learning Processes

Important areas of policy action of the Government are the curricula reform and the quality assurance of programmes and institutions. The ADB STVET programme has launched an innovative model to develop curricula relevant to labour market needs. However, to ensure ownership and sustainability, curricula development function should be located at the NTTI and should further involve enterprises' representatives.

A cost-effective curricula implementation plan including clear strategy for monitoring and evaluation should be established and led with the involvement of NTTI. Curricula implementation process should go hand-in-hand with a TVET institutions upgrading process aiming at changing their management and organization model while simultaneously reinforcing their infrastructure and equipment.

There have been appreciable attempts to reinforce the role of the NTTI. There is, however, a need to align NTTI mandate with the needs of TVET institutions and providers such as support for implementation of new curricula, introduction of new pedagogical approach for teaching-learning and assessment as consequence of the introduction of competency-based approach.

At the same time, new curricula cannot be implemented without the full commitment and wide involvement of teachers and trainers. TVET policies should therefore include teacher career management including pre-service, induction and in-service training and measures to reinforce the capacity of vocational institutions to support their teachers and trainers in order to gain their interest and adherence.

6.4 Building Flexible TVET and Improving Career Guidance

The review identified key issues related to the absence of flexible learning pathways and coherent approaches for career guidance, vocational orientation and counselling.

Guidance and counselling for individuals is uncoordinated and does not yet provide relevant information for career options, prospects and alternatives. The efforts undertaken within the Ministry of Labour and the important role played by the employment agency are not connected with Ministry of Education efforts. Support to learners at all major choice points throughout education and training is lacking. For Cambodia, it is important to encourage people to consider switching jobs as opportunities open up in new industries.

The on-going work on a National Qualifications Framework (NQF) under NTB has the potential to contribute to TVET reform and in building flexible TVET system. It has also a potential to contribute in raising the status and attractiveness of TVET qualifications and in facilitating coordination across education sectors and departments. For instance, the Cambodian NQF is designed with an aim to make possible flexible, transparent and systematic learning pathways, recognition of experiential and prior learning and support the removal of boundaries between the educational sectors.

However, the NQF development process lacked broad consultation and coordination across departments and deep involvement of employer and union organizations. Hence, the recent approval of the NQF should be considered as a starting point for further consultation on its gradual implementation with stakeholders within the Ministry of Labour, across other ministries especially the MoEYS, training institutions, as well as with employers' and employees' representatives.

The current strategy of providing career guidance, starting at a relatively low level, with the provision of advice about labour market trends and initial contacts with employers about the skills they need is a good base from which to expand provision. Encouraging individuals to think about their own skill sets is itself a valuable aspect of taking control of their own learning and development, as well as helping them to be adaptable when faced by changes in the labour market and patterns of opportunities open to them.

More substantive careers guidance could also help to make the labour market more effective and expand access to opportunities for young people. The reforms required to support vocational orientation classes in education and more substantive careers guidance as outlined above can be progressively developed. Vocational orientation discussions could be held within the framework of life skills lessons. Teachers could be provided with support materials which outline the broad skills profiles underpinning different groups of jobs and help start discussions about what skills may help individuals progress from one type of job to another.

As mentioned earlier, the NQF has now been developed and adopted by the Government. Further details regarding its functioning should be defined in cooperation with stakeholders from the world of work and experts with an understanding of emerging labour market needs. Moreover, emphasis should be on its gradual implementation and the role each stakeholder, individually and collectively, should play for its successful implementation.

From a broad education and training system perspective, NQFs should facilitate system-wide reforms and increase the involvement of stakeholders in the development of qualifications, resulting in an education and training system more responsive to the needs of labour markets and individuals. However, NQF will be ineffective in driving education and training reforms if it is not complemented by policy measures to change the learning process and institutional arrangements, e.g., vocational institution leadership, teacher training, governance and social partner roles and responsibilities. Taking this approach gives value to partnerships and provides more power to stakeholders and organizations that produce, allocate and use qualifications.

In the context of Cambodia, not all providers can comply 'immediately' with national standards. The introduction of an NQF and related quality assurance mechanisms will require substantial support to upgrade TVET providers' capacities and improve the quality of provision to meet standards. There should be a direct link, and a clear plan, between NQF and support to TVET institutions, both public and private, to improve the quality and relevance of their programmes and to comply with qualifications and quality assurance requirements. All of this requires a set of planning actions related to resource mobilization, both in terms of government allocation of public budgets and the distribution between publicly funded and privately funded investments and recurrent costs. Among the PTCs and institutes, several will be upgraded in coming years mainly through the support of donors (ADB, Qatar Foundation, etc.). Those institutions might be ready for accreditation. Others including those in the private sector are not yet ready and will need greater support to meet the required quality levels.

The focus on qualifications and how they are related could increase the flexibility of learning and career pathways. The main assumption is that there are more pathways possible to a single

qualification. This has important consequences for the flexibility of learning and may also have cost-saving effects. Related to this is the development of systems for validation of non-formal and informal learning that can facilitate access to learning for people more particularly workers.

6.5 Providing Sustainable Resources for Quality and Expansion of TVET Provision

Confronted by budgetary pressures, the Cambodian Government continues to find it difficult to provide adequate, stable financing for public TVET institutions and skills development in general (an exception is the Prime Minister's Special Fund, developed as a response to the global economic crisis, which prioritised support for the recently unemployed and out-of-work).

The low level of resources allocated to TVET to support both formal and non-formal, initial and continuing vocational learning (in schools, Provincial Training Centres (PTCs), Community Learning Centres (CLCs), enterprises, etc. is a crucial policy issue. There is a need for a deep dialogue on how to secure sustainable resources for the TVET system now and in the future.

From the discussion with national stakeholders, and taking into account international experience in this field, three broad options could be envisaged, discussed and decided upon:

- **Maintain the status quo:** Adding more expectations to an over-stretched and under-funded system is neither appropriate nor affordable, given Cambodia's plans for future economic development. The cost of continuing to provide relatively low quality TVET, much of it on a small scale, would be too great.
- **Rely further on international funding:** Both the MoEYS and the MoLVT are relying heavily on international institution-based support for upgrading and maintaining TVET institutions. This is not sustainable in the mid-term perspective because key donors such as the ADB, the World Bank and the French Development Agency (AFD) are looking for sustainable changes. Moreover, this approach is not systemic and neglects other providers such as NGOs and private TVET institutions.
- **Set-up a new source of funding and improve efficiency:** This could be achieved through deliberate and phased unlocking of the potential of enterprises' contribution to TVET through the development of new policy instruments, for example a payroll levy for formal enterprises. This seems to be broadly accepted by employers, under certain conditions such as clarity of long-term goals and consistency of means to reach them, and involvement of social partners in the governance and management of allocation and use of the resources. The MoLVT planned policy study on "Future Directions of TVET and TVET Financing" should inform decision making regarding this policy issue. Moreover, this policy review (UNESCO) adds a sensitivity analyses for estimation of the potential revenue from a payroll levy, based on international experience.

6.6 Developing Workplace Learning through Apprenticeships

Apprenticeship is defined and regulated by the Cambodian Labour law. In practice, however, apprenticeship is not regulated in Cambodia. In construction, engineering and other craft sectors, basic competencies are learned on the job through informal apprenticeship, but without any contractual arrangement. In the formal sector, apprentices are seldom recruited.

At present, in Cambodia, there is a growing demand for work-based experiences to be included and integrated in post-secondary education, for example in the polytechnics, the NTTI or at university. These experiences are now seen as being essential to develop the kinds of skills required for entry into occupations sought after by students.

The Voucher Skills Training Programme (VSTP) is supported by the ADB training programmes and managed mainly by public provincial training colleges (PTCs) VSTP uses workplace and community potential for skills development. Data from the VSTP points also to workplace learning as a less costly option than school-based training.

However, all these initiatives are not followed by bold policy actions to enhance the quality and expand the workplace learning opportunities, particularly through apprenticeship which already benefits from its legal basis. Current Government approaches do not engage significantly with learning in the workplace or learning through work activities. Such activities are most often described briefly as ‘informal’ or linked to ‘internships’.

There is a clear need for policy to support the better use of workplace learning and apprenticeships in particular. Active policy response can expand and improve the functioning of workplace learning and the quality and relevance of such schemes particularly by focusing on the demand side (enterprises).

If apprenticeships are to expand, it is important to have appropriate regulatory, financing and governance systems in place that involve employers and trade unions in planning and operation of apprenticeship. However, involvement in planning and managing apprenticeships is more likely when social partners, such as employers and employee organization, feel their voice is respected and that they have a real influence upon decision-making.

There is a clear need for close links with the labour market. Consideration needs to be given to the potential contributions of work-based learning, how it might be established, the potential and limitations of learning through work, and how these experiences can be organised to secure robust occupational learning (i.e. that which can be used beyond the circumstances of its acquisition).

However, several issues have to be discussed before moving ahead with the workplace learning policy. These include the expected contribution of enterprises, the regulatory role of NTB and the role of PTCs. The above mentioned policy option for sustainable financing of TVET could, among others, have an important impact on workplace learning development.

6.7 Connecting School with Work and Continuing the Discussion on Options for Vocationalization of Secondary Education

Cambodia's entire education system is facing serious pressure. If current trends persist, enrolment at the secondary levels is projected to double by 2020. Cambodian educational leaders are concerned about the situation of young people finishing primary and secondary education without learning skills necessary for the world of work. Their key argument concerns 'economic relevance', i.e. there is a perception that occupational skills are needed to ease the transition to the world of work.

There is room for debate around the desirability of developing occupational skills related to particular current jobs or addressing the development of broader skill sets which are capable of being applied in a wider range of settings. Put another way, the debate is about whether to support the current low skills equilibrium or to seek to develop individuals who could undertake a wider range of jobs.

The report analysis shows that while the short-term focus can be on the development of quality short-term skills programmes, it will also be important to address the longer-term need for higher level skills development.

The report suggests that plans to develop a vocational education pathway within schools may not be so urgent. Demand for intermediate skills is picking up, but only slowly. Current supply is sufficient, especially as current vacancies are being filled by candidates with technical higher education (or technical or vocational upper secondary). However, in the future it will be important to have a strong intermediate skills base as part of a balanced, diversified and growing economy.

Stakeholders still need to start thinking about higher skills development and to explore the possible role for an upper secondary vocational stream, including pathways to post-secondary education. This avenue does not need to be rushed however, given its resource-intensive nature. Setting up a new stream and getting new graduates would require at least five years to develop. In this case, the government might consider the following actions;

- Connect general secondary education with the world of work through developing in learners the capacity to solve problems, communication and inter-personal and entrepreneurial capabilities and other skills they need to be able to adapt to different work environments and thereby improve their chances of accessing gainful employment;
- Support more substantive careers guidance that can be progressively developed at different points of the education system;
- Implement and evaluate a few pilots to learn from experience before fully committing to this route, especially given the low completion rates from the few existing vocational streams in upper secondary education.

From a policy perspective the big mid-term challenge is to promote a shift in thinking whereby the focus is upon the skill sets and training required to help individuals move through the labour market and achieve their vocational goals. Managing the transition from old to new ways will require leadership and experimentation. Other countries have found it useful to trial innovations before they are more widely adopted.

Finally, current discussion regarding the vocationalization of general secondary education illustrates the problems of policy coordination. In this context, it is vital to achieve coherent systems of education and training for youth.

6.8 Meeting the Social Equity Agenda by Focusing on Quality of Training Provision for Poor Youth in Urban and Rural Areas

The situation is critical for poor youth from both urban and rural areas. For instance, 90 per cent of urban disadvantaged youth and 82 per cent of those living in rural areas have not completed lower secondary education, compared with 31 per cent of urban well-off youth.

The Government has already embarked on a range of initiatives to improve access and equity. The policy agenda already includes incentives, for example community-based learning schemes and equity training funds such as the VSTP. However, in addition to access, the key policy issue is to improve the quality of provision, and to monitor and evaluate impact of programmes.

In this context, it may be appropriate to review, strengthen and enhance the quality assurance of the range of training programmes targeting youth. This should happen alongside efforts to enhance capacities for planning, management and monitoring of training needs, assessment and delivery. In this context, rural TVET programmes face particular operational problems such as accessing facilities and materials and training teachers. The problems can only be effectively tackled through better partnership, collaboration and co-ordination between provincial and local levels.

References

- Asian Development Bank (ADB). 2009. *Kingdom of Cambodia: Preparing the strengthening TVET project*. Manila: ADB.
- , 2011. *Kingdom of Cambodia: TVET subsector assessment, strategy and roadmap*. Manila: ADB.
- , 2012. *Cambodia: Country Governance Risk Assessment and Risk Management Plan*. Manila: ADB
- Cambodian Federation of Employers and Business Associations. 2008. *Youth and Employment: Bridging the gap*. Phnom Penh: CAMFEBA
- Johanson, R. and Adams, A. V. 2004. *Skills Development in sub-Saharan Africa*. Washington DC: World Bank.
- Lauglo, J. 2005. *Vocationalization of Secondary Education Revisited*. In J. Lauglo and R. Maclean (eds), *Vocationalization of Secondary Education Revisited*, Dordrecht; Kluwer.
- Lauglo, J. and Maclean, R. 2005. *Vocationalization of Secondary Education Revisited*. Dordrecht: Kluwer.
- Ministry of Planning. 2011. *Achieving Cambodia's Millennium Development Goals: Update 2010*. Phnom Penh: Ministry of Planning.
- Ministry of Education, Youth and Sport. 2005. *Policy for Curriculum Development 2005-09*. Phnom Penh: MoEYS.
- , 2011. *Draft Paper on Vocational Education Policy*. March 2011. Phnom Penh: MoEYS.
- North South Economic Corridor. 2011. *Industrial Development – An Option for Diversifying Cambodian Economy*. Manila: NSEC.
- UNESCO. (Forthcoming). *International Trends and Issues in TVET: Building skills for work and life*. Paris: UNESCO.
- , 2012. *EFA Global Monitoring Report*. Youth and Skills: Putting education to work. Paris: UNESCO
- World Bank. 2010. *Providing Skills for Equity and Growth: Preparing Cambodia's youth for the labour market*. Washington DC: World Bank.

Annexes

Annex 1: Skills Identified as the Most Difficult to Find among Workers

Workers profile	Skills	Percentage
Unskilled worker	Work attitude	52
	Foreign language	37
	Technical	32
	Experience	32
	Communication	30
Semi-skilled workers	Decision making	45
	Experience	42
	Analytical	40
	Technical	36
	Work attitude	35
Skilled workers	Analytical	64
	Decision making	55
	Experience	37
	Technical	32
	Work attitude	29

Source: CAMFEBA 2008.

Annex 2: Circular on Promotion of Quality and Effective Technical and Vocational Education and Training

Kingdom of Cambodia

Nation Religion King

Royal Government of Cambodia
No: 01 SRNN

Circular on Promotion of Quality and Effective Technical and Vocational Education and Training (TVET)

TVET plays key roles in human resource training towards social-economic development, promotion of standard of living and poverty reduction. TVET has so far fulfilled these important roles and achieved remarkable results. The new stage of TVET requires strengthening and expansion in terms of both quantity and quality to gear up enough energy for produce skilled workforce with technical capacity in order to contribute to promoting social-economic development, creating employment opportunities for youths, attracting both national and international investors and addressing other challenges such as the issues of labour mobility and establishment of ASEAN free trade area after 2015.

In this regard and with reference to the Notification on the Outcome of the 15th Government – Private Sector Forum on April 27, 2010 and the results of the analysis of the TVET situational assessment team, the Royal Government would like to set out the following strategic direction for TVET:

- Promote TVET system to the level of high effectiveness and attraction for social-economic development and increased public recognition;
- Promote quality and outcome of TVET in order to increase employment opportunities, job productivity and income;
- Strengthen trainings based on the principle of equity by giving priorities to women, disadvantaged or marginalized people, poor youths and dropouts.

To realize these strategic directions, TVET shall introduce the following measures:

1. Training linked with labour market demands

- The National Training Board (NTB) through the National Employment Agency (NEA) shall undertake study and research to develop a labour market information system and use the information and data produced by NEA as a sound basis for preparing training plans to address the labour market demands.
- Increase the number of trainings for skilled and technical workers based on the broad labour market situation by expanding or constructing additional TVET institutions.
- Increase the number of trainings on skills much needed on the labor market and undertake studies on additional skills.
- Continue to deploy more short training courses for communities and on-the-job trainings at enterprises, establishments, companies, factories and production bases to address employment

needs in order to enhance productivity and income generation.

- All TVET institutions shall include entrepreneurship incubation aspects into training curriculum to introduce concepts on business or self-employment.

2. Ensuring Training Quality for Enhanced Productivity

- NTB shall introduce a national qualifications framework, national capacity standard, capacity testing, accreditation criteria for assuring quality of training run by TVET programmes and institutions and relevant regulations and shall lead capacity testing process for skilled labour as well as undertake assessment of the quality of trainings run by TVET programmes and institutions.
- To make it easy for the monitoring and for the implementation of the single national qualifications framework and the national capacity standard, all TVET institutions shall be registered at the Ministry of Labour and Vocational Training or at capital/provincial Department of Labour and Vocational Training depending on training levels provided by those institutions including TVET institutions already licensed by other ministries.
- TVET programmes shall ensure four aspects: knowledge, competency, attitude and professionalism as well as the linkage with production practices.
- Improve pedagogical means by providing teaching materials, workshops, books, documents, libraries to catch up with the development of new technologies.
- Organize capacity training for management and provide in-service trainings to lecturers and technical teachers on skills and pedagogy.

3. Strengthening Public-Private Partnership in TVET

- Employers shall give priorities to skilled workers holding TVET degree or certificate when recruiting workers for their factories and enterprises and cooperate with TVET institutions to accept students for internship and experience exchange to address the needs of labour market.
- All TVET institutions shall create a working group to liaise with professional associations, production and service providers, factories and enterprises to find jobs for successful graduates.
- Undertake research to introduce regulations on employers' obligations in TVET and regulations on the use of skilled labour, which have undergone trainings so far.

4. Equity in Training

Continue to effectively implement the Royal Government's principle of equity in trainings by giving priorities to women, persons with disability, disadvantaged people, poor youths and dropouts so that they can develop skills for them to live in harmony with other members of the society. To this end, priority measures shall be introduced such as scholarship programs and establishment of dormitories for these target groups.

5. Promoting TVET System for Social-Economic Development

- Introduce measures to provide incentives to technical teachers and students who are studying or working in TVET institutions to attract scientists, outstand technicians and well-performed students to study or work in this sector.
- Development partners, organizations, private companies and private donors should look at the possibilities to help develop TVET schools and provide scholarships to poor young men and women who voluntarily enroll in TVET courses.

Ministry of Labour and Vocational Training shall manage TVET programmes to ensure quality and work on detailed regulations and circular to implement the above measures, monitor and evaluate the implementation and report to the Royal Government.

Upon receiving this circular, National Training Board, Ministry of Labour and Vocational Training, Ministry of Economy and Finance, all relevant ministries, Provincial Training Boards, all state and private TVET institutions and NGOs shall implement the circular effectively.

Phnom Penh, Feb 08, 2011

Prime Minister
Samdech Aka Moha Sena Padei Techo Hun Sen

Receiving Places:

- Ministry of Royal Palace
- General Secretariat of the Constitution Council
- General Secretariat of the Senate
- General Secretariat of the National Assembly
- General Secretariat of the Royal Government
- Cabinet of Samdech Prime Minister
- Cabinet of Deputy Prime Ministers
- All ministries/institutions
- All capital-provincial halls
- Royal Gazette
- Filing - Documentation

The success of universal primary education in developing countries over the last decade has translated into huge systemic pressure to expand both general and technical and vocational secondary education. Moreover, skills are increasingly seen as critical to sustainable development, labour market inclusion and economic growth making Technical and Vocational Education and Training (TVET) one of the four priority areas in UNESCO's education programme.

UNESCO conducts TVET policy reviews as part of a dialogue with concerned governments to support their actions towards developing appropriate policies for improving the relevance of TVET systems to the labour market and individual needs. This policy review responds to a request from the Government of Cambodia to UNESCO to conduct a review of the country's TVET system and to engage in a policy dialogue on its future development.

Cambodia's development model has important consequences for its education and training system. A large portion of the Cambodian economy is comprised of the informal sector and rural economic activities. However, the country is benefiting from a wave of Foreign Direct Investment (FDI) mainly through industries characterised by labour-intensive, low-skill and low-paid work (for example in the garment industry). There are critical policy challenges for TVET, both in responding to immediate needs for skills in the new industries and in developing the national capacity to improve livelihoods, particularly in rural areas, and in migrating to higher-end skills industries. At the same time, TVET has to be articulated in the education policy and engage learners in a lifelong learning path.

This policy review identifies policy options and strategies for enhancing TVET relevance, equity, efficiency and effectiveness. It is also intended to contribute to learning and participatory processes among stakeholders and to stimulate dynamic and evidence-based policymaking.