

## SECTOR ASSESSMENT (SUMMARY): TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING

### Sector Road Map

#### 1. Sector Performance, Problems, and Opportunities

1. **Context.** Cambodia's annual gross domestic product grew by an average of 4.7% over fiscal years 2007–2010, and it is projected to grow by an average of 7.2% over fiscal years 2011–2015.<sup>1</sup> Employment has grown quickly, with an average of 100,000 new jobs created annually in each of two main sectors: industry (garments and construction) and service (tourism). Agriculture remains vital to employment, but its share of total employment is gradually declining from 59% in 2007 to 54% in 2010.<sup>2</sup> Despite strong growth, the economy and labor market face major challenges. It is estimated that 250,000–300,000 new job seekers enter the labor market each year. The economy needs to diversify and expand if it is to sustain high rates of economic growth over the next decade. The need for economic diversification has important implications for Cambodia's technical and vocational education and training (TVET) system and for the nature of skills required to support economic growth and development. Diversification will require a more strategic, relevant, and market-responsive formal TVET system where institutes equip students with both general and specific skills that employers demand. While economic growth and employment have undergone rapid transformation, the formal TVET system remains in its infancy. Gaps in access, relevance, quality, and institutional capacity constrain poverty reduction, inclusive development, and Cambodia's participation in the global economy and progress toward other national goals.

2. **Key issues constraining sector performance.** Although Cambodia has made significant progress since 2000 in increasing access to basic education (grades 1–9), the level of dropout is very high—particularly from the lower secondary level (grades 7–9). The transition rate to lower secondary education remains about 80%, but 21% of students drop out before completing grade 9. The dropout rate is particularly high for poor students and girls in remote areas. In school year (SY) 2011–2012, the dropout rate was 22.5% (22.2% for girls) for grade 7, 19.5% (20.7% for girls) at grade 8, and 21.3% (20.6% for girls) for grade 9.<sup>3</sup> Annually, about 230,000 youth in Cambodia leave school without completing basic education. Those who have not graduated from grade 9 cannot enter the formal TVET system. Fewer than 1% of grade 9 graduates progress to formal TVET.<sup>4</sup> The majority of trainees entering formal TVET have completed grade 12 and are eligible for diploma courses. However, only about 7% of grade 12 graduates enter TVET.<sup>5</sup>

3. **Technical and vocational education and training system.** TVET in Cambodia is governed by the National Training Board (NTB) and administered through the directorate general

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<sup>1</sup> Asian Development Bank (ADB). 2013. *Asian Development Outlook*. Manila.

<sup>2</sup> United Nations Development Programme. 2011. *Human Capital Implications of Future Economic Growth in Cambodia: Elements of a Suggested Roadmap*. Phnom Penh.

<sup>3</sup> The reasons for dropout include high school fees; opportunity costs of schooling; local employment and house chores; poor quality of schooling and low educational relevance; low student achievement and lack of motivation; teacher shortage and absenteeism; and in the case of girls, employment opportunities and gender barriers such as unsupportive school or home environments.

<sup>4</sup> In SY2009–2010, total secondary enrollment was 908,698. Formal TVET enrollments decreased sharply from 1,200 in SY2008–2009 to 746 in SY2009–2010. Sources: Ministry of Education, Youth and Sport, 2009; Ministry of Labour and Vocational Training, 2012.

<sup>5</sup> UNESCO Institute for Statistics. Database 2010. <http://www.uis.unesco.org/Pages/default.aspx> (accessed 13 August 2014).

of TVET (DGTVET) of the Ministry of Labour and Vocational Training (MLVT). The TVET system is the primary source of middle-level craft, trades, and technician skills training. At present, TVET nonformal training is available for individuals with little or no education, while formal TVET training is provided through a system that runs parallel with the existing education system, managed by the Ministry of Education Youth and Sport (MoEYS). Short, nonformal training programs for the enhancement of rural incomes continue to be a major part of ongoing TVET provision. Most of these are provided through the government's 26 provincial training centers (PTCs), with about 20,000 total trainees on average per year from 2006 to 2008. From 2006 to 2008, the Voucher Skills Training Program (VSTP) provided further assistance in short rural basic skills training for income supplementation to some 100,000 trainees, 60% of whom were female. Formal training is also provided at certificate level to students who have completed grade 9 and at diploma level for those who have completed grade 12. Bridging programs are being rolled out to allow students who have not completed grade 9 to obtain an equivalent qualification and become eligible for entry into formal TVET programs.

4. In 2012, the NTB approved the Cambodian Qualifications Framework (CQF) as a unified system of national qualifications covering TVET and higher education. It links qualifications at each level and between sectors into a national system of educational recognition, providing flexible pathways between education and training. The CQF is integral to the delivery of education and training services offered by both the MLVT and the MoEYS, and other government agencies providing opportunities for human resource development, as it provides uniform definition of skill standards to be achieved and recognized.

**5. Nonformal technical and vocational education and training performance and issues.** The TVET system in Cambodia is based on a two-track policy of skills development for poverty reduction and economic development, leading to a dual system of nonformal (short courses) and formal training (long courses). TVET in Cambodia mainly involves short, nonformal training programs aimed at enhancing rural incomes and reducing poverty. The nonformal TVET system is well developed, particularly with the national rollout of the VSTP for delivering large-scale nonformal programs to communes and villages. Nonformal training programs have no entry requirements; most trainees have not completed grade 9 and are based in rural communities. Nonformal training programs lead to certification, but credit toward formal TVET is not recognized. Nonformal training is provided through the government's 26 PTCs and over 200 private and nongovernment organization (NGO) vocational training centers, offering short courses of 6 months or less, mainly in the skill areas of agriculture, computing, business, handicrafts, sewing, hairdressing, and basic mechanics.

6. Enrollment in PTCs is lower than in private and NGO vocational training centers. In SY 2010–2011, total PTC enrollment was 37,414 (21,871 females) and total private enrollment was 49,511 (20,180 females). More than 70% of trainees complete courses in agricultural skills development, representing 68% of the agricultural labor force.<sup>6</sup> Other course offerings in high demand include basic mechanics and sewing.

**7. Formal technical and vocational education and training performance and issues.** An estimated 300,000 Cambodians enter the labor force annually, of whom only 30% hold a formal TVET certification. Formal training programs at diploma and degree level are limited. Polytechnics and technical institutes under the MLVT offer certificate and diploma level courses, but only in air conditioning repair, auto mechanics, and electrical works.<sup>7</sup> The MLVT will initiate

<sup>6</sup> Government of Cambodia. 2010. *Cambodia Socio-Economic Survey 2010*. Phnom Penh.

<sup>7</sup> Certificate and diploma level courses refer to middle-level skills development—CQF levels 2–4.

regional training centers (RTCs) in five provinces to scale up PTC training services to offer certificate level courses. Formal TVET is also offered by other ministries such as the Ministry of Agriculture. There are few private sector TVET providers at the certificate and diploma levels. A system of qualification standards is not yet in place to enable uniform certification processes among public and private TVET providers and across ministries. Most public TVET institutes are in Phnom Penh, so rural access to formal TVET is limited. Completion of grade 9 is a requirement for entering formal TVET at the diploma level since the diploma courses are an alternative to upper secondary education (grades 10–12). Grade 12 completion is required for formal TVET at the diploma level. Career development through TVET is limited, given the lack of courses for study up through the diploma level. Course offerings are supply-driven, focusing on mechanics, electronics, electrical works, construction, computing, and business. There is limited labor market information available to inform the decisions of TVET students and providers.

8. The formal TVET system focuses on long-term courses emphasizing theoretical knowledge, with limited practical application. TVET instructors are recruited from degree and diploma holders in relevant fields, but low salaries make it difficult to attract candidates with up-to-date industrial and enterprise experience. After completing pedagogical training in the National Technical Training Institute (NTTI), they can teach in a polytechnic, technical institute, or PTC. Among polytechnic and institute teachers, one-third have a master's degree and two-thirds an undergraduate degree or diploma. About 90% of PTC staff have a degree or diploma. About 75% of instructors have completed 12 months of pedagogical training at NTTI. However, this training does not provide adequate preparation in community and enterprise development, working with industry, understanding the employment market, microenterprise support, career guidance, and, most importantly, hands-on practical skills in their field. Most TVET institutes lack adequate, industry-relevant equipment and training facilities. There is limited use of systematically collected labor market information or surveys of large employers to identify skills shortages and surpluses in determining the range of TVET course offerings.<sup>8</sup> Performance incentives for TVET institutes are weak.

9. Since 2009, enrollment in certificate level courses has averaged only over 6,000, and only 3,600 enrollments in diploma level courses.

10. **Gender.** The proportion of females enrolled in formal TVET has been very low, at 20% of the total. One of the barriers to women's access to formal TVET courses is physical distance from TVET institutes and cultural values that do not encourage women to leave home. Women's opportunities in particular are hampered by prevailing traditional attitudes regarding "appropriate" occupations for women. Formal TVET programs mainly focus on traditionally male-oriented skill areas such as mechanics.

11. **System challenges.** The two TVET streams—formal and nonformal—are independent and lack processes of articulation between them. Nonformal programs remain highly localized, with generally small-scale institutes offering programs that are not accredited and do not provide a pathway to further training. The only link between the systems is that they both fall under the jurisdiction of the DGTNET. This lack of articulation between the systems is a major constraint on the supply of skilled labor and on equity of access to TVET.

12. The formal TVET system lacks links to employers and the increasingly important private sector. Enterprises regard the government training provision system as low-quality, out-of-date, and ineffective. With the exception of business programs and programs outside Phnom Penh,

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<sup>8</sup> The NTB is the apex body for TVET policy formulation. It is chaired by a deputy prime minister.

demand from potential trainees for TVET training programs is decreasing. TVET provision is failing to meet the needs for basic and mid-level skills formation and, in large part, failing to provide acceptable career paths for youth.

13. Strengthening the TVET sector is becoming a growing priority, since 200,000–300,000 youth enter the labor market annually and the private sector demands public TVET institutes that produce a quality skilled workforce. The government and the Ministry of Economics and Finance recognize the critical importance of increasing the budget for TVET. However, the capacity of DGTNET for planning and budgeting according to central government requirements for program-based budgeting remains weak.

## **2. Government's Sector Strategy**

14. The government emphasizes skills development as part of Cambodia's Rectangular Strategy for Growth, Employment, Equity and Efficiency Phase III, and the National Strategic Development Plan, 2014–2018.<sup>9</sup> The draft TVET Strategic Plan, 2014–2018 under the MLVT guides TVET sector development. The government's National Strategic Development Plan, 2014–2018 reaffirms its high prioritization of and commitment to skills development for inclusive growth, which are premised on widely perceived socioeconomic gains at the individual and national levels such as improved rural incomes and a more responsive workforce to meet labor market needs. Recent trends and projections of the government's recurrent budget indicate a positive trend. From 2007–2011, government recurrent budgets rose by 86.9% overall and are projected to increase a further 25.7% from 2011–2014.<sup>10</sup> Similarly, the MLVT recurrent budget increased from \$13.1 million in 2009 to \$26.9 million in 2013. The DGTNET recurrent budget grew strongly in nominal terms and as a percentage of the MLVT budget from 2009 to 2013. The DGTNET recurrent budget tripled in that period from \$5.4 million to \$16.6 million. Expenditure has mainly been on the development of systems and capacity.

15. With Asian Development Bank (ADB) support, the MLVT is formulating the TVET Strategic Plan, 2014–2018 with the following objectives: (i) enhance quality and relevance, (ii) improve access and equity, and (iii) strengthen management and governance. ADB's draft Cambodia country partnership strategy, 2014–2018 prioritizes development of the TVET sector.<sup>11</sup>

## **3. ADB Sector Experience and Assistance Program**

16. ADB's education and training strategy in Cambodia supported the completion of 9 years of basic education, leading to further education and technical and vocational training. ADB support is part of a program-based, sector development approach to meet the objectives of the education and TVET sectors, as stated in the government's National Strategic Development Plan (NSDP), 2014–2018 and respective sector strategies. The four completed projects have laid a good foundation for ADB's future work in TVET. The Basic Skills Project established the framework for development and management of the TVET system.<sup>12</sup> This involved setting up the NTB to oversee and coordinate all TVET, and the National Training Fund, through which the government funds all its TVET programs. It also included the NTTI for TVET instructor training

<sup>9</sup> Government of Cambodia. 2013. *Rectangular Strategy for Growth, Employment, Equity, and Efficiency, Phase III*. Phnom Penh; Government of Cambodia. 2013. *National Strategic Development Plan 2014–2018*. Phnom Penh.

<sup>10</sup> Note that 2007–2010 are budget expenditures and 2011 is budget allocation.

<sup>11</sup> The project is also included in ADB. 2011. *Country Operations Business Plan: Cambodia, 2011–2013*. Manila.

<sup>12</sup> ADB. 1995. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Cambodia for the Basic Skills Project*. Manila.

and curriculum development. The First and Second Education Sector Development Programs strengthened this emerging system through support for sector planning, management, and monitoring; and expansion and upgrading of training institutes.<sup>13</sup> Extensive support for nonformal training was provided under the second education sector development program, which successfully introduced the VSTP for rural basic skills training that is responsive to community needs. The Piloting the Post-Harvest Technology and Skills Bridging Program for Rural Poor successfully pilot tested an initiative that offers out-of-school and unemployed youth a “bridging training path” to gain an alternative entry to CQF level 2.<sup>14</sup> This is an important strategy to support increased access to CQF certificate level.

17. The ongoing Strengthening Technical and Vocational Education and Training project ensures an expanded public TVET system through the following key interventions: (i) construction of five RTCs to offer demand-driven TVET in three sectors (ICT and business, automotive mechanics, and construction); (ii) expansion of the VSTP, which was pilot tested under the second education sector development program; (iii) development of skills standards, curriculum, and assessment procedures in the three sectors; (iv) establishment of industry advisory groups; and (v) policy study for TVET for future TVET directions.<sup>15</sup>

18. The country assistance program evaluation rated the education sector assistance program *successful (low)*. ADB support to the sector was assessed relevant, efficient, likely to be sustained, and having a substantial impact.

19. **ADB’s forward sector strategy.** Attaining the government’s long-term social and economic goals will require strengthening the education and training systems to better respond to social and economic demands and to foster inclusive growth. ADB’s forward strategy for education and training is aligned with the government’s NSDP, 2014–2018 and the education and TVET sectors’ strategic plans, 2014–2018. The TVET Sector Development Program will build on and extend the achievements of the completed projects as well as align with progress made through the ongoing Strengthening Technical and Vocational Education and Training project to: (i) ensure equitable access for all to education and training; (ii) enhance the quality and relevance of learning and skills development; (iii) increase the involvement of employers in education and TVET delivery through public–private partnerships at both strategic and operational levels; and (iv) strengthen governance and management in education and the TVET system. ADB envisages strong coordination of assistance with other emerging partners through the proposed program.

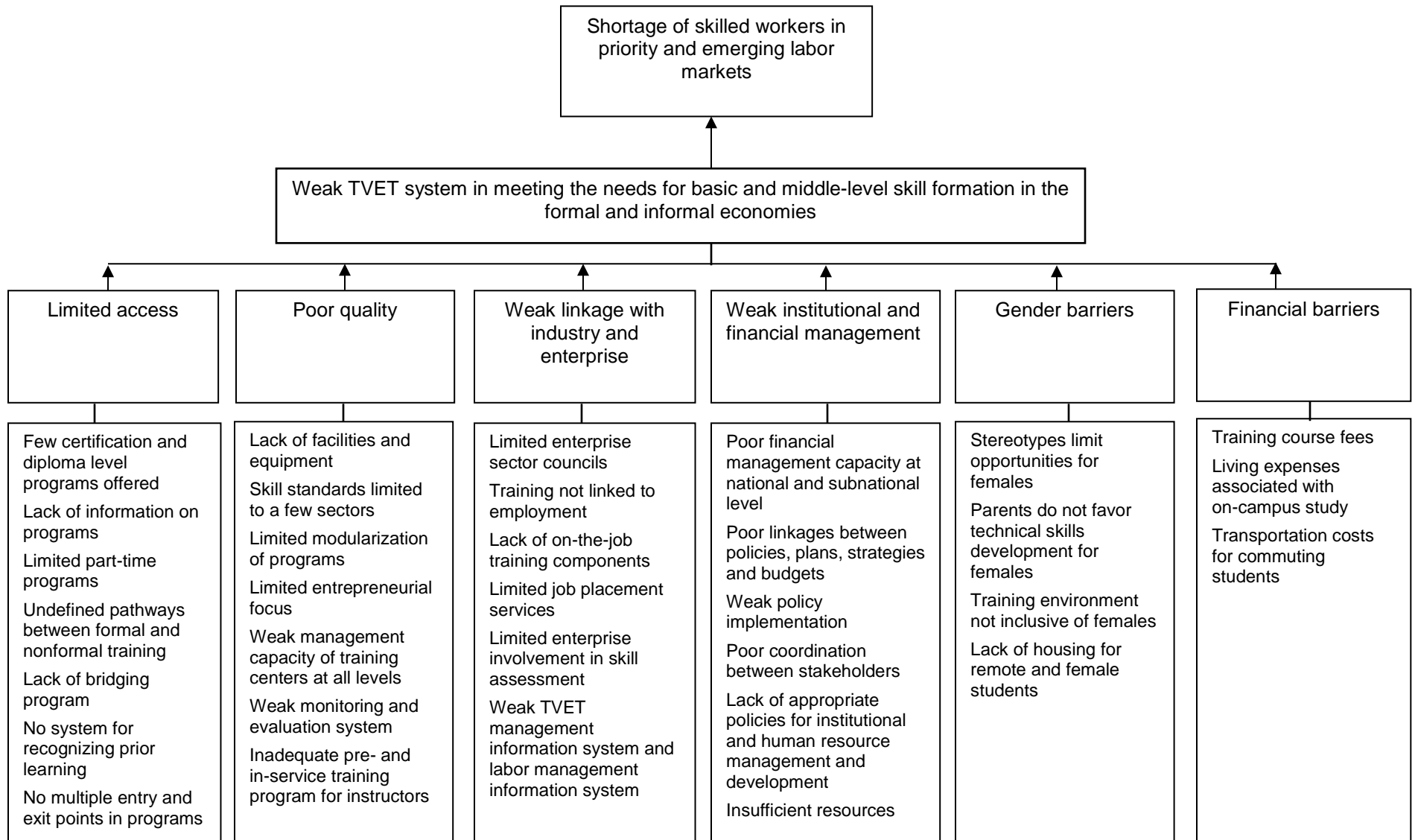
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<sup>13</sup> ADB. 2001. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Cambodia for the Education Sector Development Program*. Manila; ADB. 2004. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Cambodia for the Second Education Sector Development Program*. Manila.

<sup>14</sup> ADB. 2009. *Proposed Grant Assistance to the Kingdom of Cambodia for Piloting the Post-Harvest Technology and Skills Bridging Program for Rural Poor*. Manila.

<sup>15</sup> ADB. 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Grant Assistance to the Kingdom of Cambodia for the Strengthening Technical and Vocational Education Project*. Manila.

## Problem Tree for the Technical and Vocational Education and Training Sector Development Program



TVET = technical and vocational education and training.

### Sector Results Framework (Education, 2014–2018)

Country Sector Outcomes		Country Sector Outputs		ADB Sector Operations	
Outcomes with ADB Contribution	Indicators with Targets and Baselines	Outputs with ADB Contribution	Indicators with Incremental Targets	Planned and Ongoing ADB interventions	Main Outputs Expected from ADB Interventions
Increased levels of educational attainment at secondary level and increased participation in Technical and Vocational Education and Training (TVET).	<p>Gross enrollment rate (GER) at Lower Secondary Education (LSE) Target (SY2017–2018): 87% (86% female) Baseline (SY2012–2013): 53.6% (54.2% female)</p> <p>GER for Upper Secondary Education (USE) Target (SY2017–2018): 45% (42% female) Baseline (SY2012–2013): 27.4% (26.4% female)</p> <p>Completion rates for LSE Target (SY2017–2018): 76% (76% female) Baseline (SY2012–2013): 40.6% (40.3% female)</p> <p>Number of formal training enrollments Target (SY2017–2018): 17,600 Baseline (SY2012–2013): 8,700</p> <p>Number of non-formal training enrollments Target (SY2017–2018): 136,000 Baseline (SY2012–2013): 84,400</p>	Education infrastructure and system quality, including TVET, improved.	<p>Number of lower secondary schools (LSS) built Target (2018): 2,069 Baseline (2014): 1,630</p> <p>Number of Upper Secondary schools (USS) built Target (2018): 668 Baseline (2014): 432</p> <p>Number of new LSS teachers recruited Target (2018): 1,309 Baseline (2014): 909</p> <p>Number of new USS teachers recruited Target (2018): 2,717 Baseline (2014): 203</p> <p>Percentage of TVET trainers who have both pedagogical and industry skills Target (2018): 25% Baseline (2014): 5%</p>	<p><b>Planned key activity areas:</b> Secondary education and TVET sector system development (70% of funding)</p> <p>Support to secondary education and TVET policy reform programs (30% of funding)</p> <p><b>Pipeline projects with estimated amounts:</b> TVET Sector Development Program (TVETSDP; \$30 million; 2014–2018)</p> <p>Strengthening Secondary Education and Teaching of Math and Science Program (SSETMS; \$30 million; 2015–2019)</p> <p><b>Ongoing projects with approved amounts:</b> Third Education Sector Development Program (ESDP III; \$30 million, 2014–2018)</p> <p>Strengthening TVET Project (STVET; \$24.5 million; 2010–2015).</p>	<p><b>Planned key activity areas:</b> Access to relevant and quality of secondary education enhanced.</p> <p>Access to relevant and quality of TVET training services enhanced.</p> <p><b>Ongoing projects</b> 60 lower secondary schools (LSS) constructed, including sanitation packages.</p> <p>5 LSSs in Phnom Penh expanded through building additional 2–3 floors.</p> <p><b>Pipeline projects</b> 40% of Vocational Skills Certificate holders (60% female) enroll in the Cambodia Qualifications Framework (CQF) Level 2 courses before 2019.</p> <p>6,400 trainees (50% female) participated in Skills Bridging Program.</p> <p>50% of CQF Level 1 enrollees assessed for recognition of CQF Level 2 competency by 2018.</p> <p>600 RTC and PTC instructors (20% female) trained to deliver competency-based training and assessment for CQF Levels 1–4 programs by 2017.</p>

SY = school year (starts in October and ends in July)

Source: Asian Development Bank and government estimates.