



Technical Assistance Report

Project Number: 49178-001
Capacity Development Technical Assistance (CDTA)
December 2015

Democratic Republic of Timor-Leste: Policy and Planning for Skills Development in Secondary Education

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Asian Development Bank

CURRENCY EQUIVALENTS

The unit of currency in Timor-Leste is the United States dollar.

ABBREVIATIONS

ADB	–	Asian Development Bank
MOE	–	Ministry of Education
TA	–	technical assistance
TVET	–	technical and vocational education and training

NOTE

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

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CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data		Project Number: 49178-001	
Project Name	Policy and Planning for Skills Development in Secondary Education	Department /Division	PARD/PAUS
Country	Timor-Leste, The Democratic Republic of	Executing Agency	Ministry of Education
2. Sector		ADB Financing (\$ million)	
✓ Education	Education sector development		0.20
	Secondary		0.40
	Technical and vocational education and training		0.40
		Total	1.00
3. Strategic Agenda		Climate Change Information	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive Pillar 3: Extreme deprivation prevented and effects of shocks reduced (Social Protection)	Climate Change impact on the Project	Low
4. Drivers of Change		Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Institutional development	Effective gender mainstreaming (EGM)	✓
Knowledge solutions (KNS)	Application and use of new knowledge solutions in key operational areas		
5. Poverty Targeting		Location Impact	
Project directly targets poverty	No	Nation-wide	High
6. TA Category:	B		
7. Safeguard Categorization	Not Applicable		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		1.00	
Capacity development technical assistance: Technical Assistance Special Fund		1.00	
Cofinancing		0.00	
None		0.00	
Counterpart		0.00	
None		0.00	
Total		1.00	
9. Effective Development Cooperation			
Use of country procurement systems	No		
Use of country public financial management systems	No		

I. INTRODUCTION

1. The Government of Timor-Leste requested Asian Development Bank (ADB) assistance to enhance the planning and management capacity of the Ministry of Education (MOE) for skills development in secondary education, with emphasis on improving and expanding technical education. During the July and October 2015 missions, ADB and the government reached agreement on the objectives, scope, implementation arrangements, costs, and terms of references for consultants for the technical assistance (TA). The design and monitoring framework is in Appendix 1.¹ The TA is included in ADB's draft country operations business plan, 2016–2018 for Timor-Leste.²

II. ISSUES

2. Timor-Leste's economy has been growing rapidly, with annual non-oil gross domestic product growth averaging more than 10% during 2006–2013. Currently a lower middle-income country, Timor-Leste is striving to become an upper middle-income country by 2030.³ In the Strategic Development Plan, 2011–2030, the government recognizes education and training as key to improving life opportunities for the population. It also identifies the shortage of skilled human resources as a critical constraint to sustaining economic development.

3. Education sector performance has been improving steadily over the past decade. The primary net enrollment rate reached 93% and the presecondary gross enrollment rate (grades 7–9) rose to 75% by 2013.⁴ For secondary education (grades 10–12), the gross enrollment rate reached 61% in 2014, with the female rate (64%) exceeding that for males (57%). Yet, net secondary enrollment remains low at 27% overall. Progress has also been slow in reducing urban–rural disparities and improving the quality of education, including learning outcomes, quality of teachers, and relevance of curriculum. The education system will face further challenges in the coming years, as the large youth population progresses through the school system. Currently, more than half of the country's 1.16 million population is under the age of 20. By 2030, the number of children eligible for presecondary and secondary education will increase by 45%.⁵ Challenges for the education system include not only accommodating an increasingly large number of youth, but also improving the quality to equip young people with the proper knowledge and practical skills for employment.

4. Current employment situations illustrate an urgent need to improve the quality and relevance of education, especially of secondary education. In 2013, only 31% of the population aged 15 and older was in the paid workforce (both formal and informal sectors) or looking for a job, while 26% were engaged in subsistence work.⁶ The unemployment rate is the highest among youth (aged 15–24) at 22%, while the national average is 11%. The unemployment rate is also the highest among those with secondary education at 15% across all education groups.⁷ Despite the abundance of unemployed youth, the economy is faced with a shortage of

¹ The TA first appeared in the business opportunities section of ADB's website on 24 September 2015.

² ADB. Forthcoming. *Country Operations Business Plan: Timor-Leste, 2016–2018*. Manila.

³ Government of Timor-Leste. 2011. *Timor-Leste Strategic Development Plan, 2011–2030*. Dili.

⁴ Government of Timor-Leste, Ministry of Education. 2014. Data from the Education Management Information System. <http://www.moe.gov.tl/?q=node/217>

⁵ National Statistics Directorate and United Nations Population Fund. 2012. *Timor-Leste Population and Housing Census 2010. Volume 8: Population Projection*. Dili.

⁶ Government of Timor-Leste, National Statistics Directorate and Secretariat of State for Professional Training and Employment Policy. 2014. *Timor-Leste Labor Force Survey 2013*. Dili.

⁷ According to the 2013 labor force survey, unemployment rates are 13% for those with primary education, 15% for those with secondary education, and 6% for those with tertiary education.

practically skilled Timorese workers, and relies instead on many foreign workers, particularly in technical positions. Employers cite inadequate skills and poor work attitudes among young Timorese as the main reasons for using foreign skilled or semiskilled workers.⁸

5. Recognizing the issues of skill shortages and high youth unemployment, the government has committed to expand technical secondary education and improve its quality and relevance to labor market needs. Of approximately 50,000 students enrolled in secondary schools as of 2014, only 11% attended technical schools (60% male and 40% female).⁹ This low enrollment is related to inadequate coverage of practical skills programs and lack of relevant curriculum, sufficiently qualified teachers, training facilities, and equipment.

6. MOE aims to improve access to, and quality of, technical secondary education to enhance employability and higher learning opportunities for young Timorese. To meet this goal, MOE has developed a policy to transform some general secondary schools into technical schools. The TA will assist MOE in strengthening its planning and management capacity for technical secondary education. Specifically, the TA will support MOE in developing detailed policy and implementation frameworks for expanding and improving technical education, based on assessments of current learning outcomes, effectiveness of existing skills programs, and labor market needs for priority skills programs in technical schools. The TA will also support MOE in piloting the implementation of new skills programs in one or two priority secondary schools, while ensuring labor market linkages for technical education.

7. The TA builds on ADB's ongoing grant assistance for technical and vocational education and training—the Mid-Level Skills Training Project—under the Secretariat of State for Professional Training and Employment Policy.¹⁰ The assistance introduced mid-level training in construction and automotive trades at the postsecondary level to alleviate acute shortages of skilled workers amid the country's accelerated infrastructure investments. The assistance has helped to establish systematic paths for young people to obtain accredited skills training, and to strengthen quality assurance mechanisms under the national qualification framework. The TA will help MOE establish common quality assurance mechanisms with the Secretariat of State for Professional Training and Employment Policy for technical secondary education. A common qualification framework will enable the country to build a more integrated skills development system—linking secondary education, postsecondary training systems, and tertiary education—where young people can be channeled into clear, progressive paths for technical skills development with approved national qualifications. The emphasis of the TA on improving the quality and labor market relevance of technical education will contribute to enhancing the internal and external efficiencies of education and training systems in Timor-Leste.

8. The TA is directly aligned with ADB's draft country partnership strategy, 2016–2020 for Timor-Leste, which supports the country's inclusive development agenda and capacity development in the transport, energy, water, urban services, education, and finance sectors. Among development partners, the Korea International Cooperation Agency currently supports MOE in secondary education through its rehabilitation and improvement project for one technical secondary school. Development partner support for MOE is mostly concentrated at preschool and primary school levels. The TA support to enhance MOE's planning capacity, along with the development of policy and implementation frameworks for technical secondary

⁸ Government of Timor-Leste, Secretariat of State for Professional Training and Employment Policy. 2014. *Enterprise and Skills Survey 2013*. Dili.

⁹ Data provided by the Director General's Office for Secondary Education, Ministry of Education, July 2015.

¹⁰ ADB. 2011. *Proposed Grant Assistance to the Democratic Republic of Timor-Leste for the Mid-Level Skills Training Project*. Manila.

education, will help MOE formulate investment strategies for secondary education expansion in relation to other MOE priorities.

III. CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE

A. Impact and Outcome

9. The impact will be an increased number of technical secondary school graduates with improved practical skills and learning outcomes. The outcome will be enhanced MOE capacity to plan and strengthen quality technical secondary education.

B. Methodology and Key Activities

10. The TA will deliver three outputs to achieve the expected outcome: (i) current learning outcomes and labor market demand for priority skills programs in secondary education assessed, (ii) policy and implementation frameworks to expand and improve technical secondary education developed, and (iii) planning and managerial capacity of MOE and secondary school officials for quality technical education enhanced.

11. **Output 1: Current learning outcomes and labor market demand for priority skills programs in secondary education assessed.** To develop effective implementation strategies to expand and improve technical schools, the strengths and shortcomings of current programs in secondary schools will be assessed, and labor market needs examined to identify the types of skills to be acquired by secondary graduates. Results from the assessments will help MOE officials make informed decisions about the scope of required expansion and the types of skills programs for additional technical schools. The assessments will also provide a baseline for monitoring improvements in learning outcomes and skills programs of secondary education. Key activities include the following:

- (i) Assess students' learning outcomes and graduates' destinations to better understand the relevance and effectiveness of current education and skills programs in secondary schools.
- (ii) Examine the cost-effectiveness and relevance of current skills programs in technical schools.
- (iii) Assess the appropriateness of, and labor market demand for, MOE's priority skills programs proposed for additional technical schools (e.g., accounting, maritime and fisheries, and information technology), and identify other skills programs based on labor market and community development needs.
- (iv) Assess the relevance of curricula and textbooks, and recommend improvements in general learning and teaching methods for priority skills programs.
- (v) Conduct training needs assessments for teachers, and recommend programs to upgrade teachers' qualifications and skills to improve learning outcomes and to undertake priority skills programs.
- (vi) Assess physical facilities and equipment of MOE's priority secondary schools to enhance the quality and relevance of practical skills and learning outcomes.

12. **Output 2: Policy and implementation frameworks to expand and improve technical secondary education developed.** Based on the assessment results, specific implementation strategies will be prepared to expand technical education. The plans will ensure close labor market linkages for technical education, quality assurance schemes for skills programs, and financing mechanisms for quality technical education. Key components will include the following:

- (i) Develop overall implementation strategies to increase the relevance, quality, and coverage of technical secondary education with additional skills programs.
- (ii) Design strategies for technical education to build close linkages with industry and community needs, including entrepreneurship opportunities.
- (iii) Establish assessment and certification mechanisms for secondary graduates that are aligned with the national qualification framework, especially existing schemes under the National Labor Force Development Institute.
- (iv) Develop financing plans for the expansion of technical schools that assure the quality of learning and skills programs.
- (v) Develop pilot implementation plans for agreed priority skills programs (at least two programs) in selected MOE priority schools, ensuring demonstrated industry linkages.
- (vi) Recommend specific mechanisms to enhance data collection and management capacity (e.g., student registration system, education management information system, and National Agency for Academic Assessment and Accreditation) for better monitoring of student flows and performance.

13. Output 3: Planning and managerial capacity of MOE and secondary school officials for quality technical education enhanced. Under this output, various capacity development activities will be carried out for MOE officials, school teachers, and school administrators to improve the quality and effectiveness of technical secondary education. Based on the analysis and identification of specific needs of officials and teachers, training workshops will be organized. A study visit will be undertaken to other Asian countries to learn about successful management practices at high-performing technical and vocational schools. Consultations will also consider incentive structures for school officials and teachers, and develop options to enhance managerial and teaching capacity at MOE and technical schools. Based on financing options developed under output 2, MOE officials will be assisted in preparing specific investment strategies for technical secondary education in relation to other MOE priorities. The TA will also support MOE's pilot implementation of technical education expansion in one or two priority schools, based on MOE's resource availability.

C. Cost and Financing

14. The TA is estimated to cost \$1,080,000, of which \$1,000,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources). The government will provide counterpart support in the form of counterpart staff, office accommodation for consultants, logistic support and coordination with school officials, and other in-kind contributions. The cost estimates and financing plan are in Appendix 2.

D. Implementation Arrangements

15. MOE will be the executing and implementing agency for the TA. The director general for secondary education will provide overall guidance and supervision of TA implementation, supported by consultants. The TA will be implemented from January 2016 to December 2018.

16. Individual consultants and a consulting firm will support TA implementation. The TA will engage two national consultants as individual consultants—a national TA advisor and team leader (30 person-months) and a national TA support coordinator (32 person-months)—who will manage day-to-day TA implementation under the guidance of the director general for secondary education. By coordinating and communicating TA activities closely with MOE and school officials, the national TA advisor will support MOE in enhancing its managerial capacity and

building ownership of TA outputs. A team of international (29 person-months) and national specialists (13 person-months) will be recruited through a firm to produce assessment reports, other technical outputs, and capacity development workshops. The firm will be recruited for an output-based contract using the simplified technical proposal procedure. The international consultants, through the firm, will include an international technical advisor, economic and financial analyst, learning assessment and curriculum specialist, teacher training and management specialist, and school facility and equipment specialist. The outline terms of reference for consultants are in Appendix 3. All TA consultants will be selected in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). All procurement will be carried out according to ADB's Procurement Guidelines (2015, as amended from time to time). The TA proceeds will be disbursed in accordance with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended time to time).

17. TA implementation will be monitored periodically through ADB review missions and a review of consultant reports. To support monitoring and evaluation, the consultants will submit an inception report, a midterm report, and a final report to ADB and MOE. Assessment findings and reports under the TA will be presented and discussed at stakeholder meetings and capacity development workshops.

IV. THE PRESIDENT'S DECISION

18. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$1,000,000 on a grant basis to the Government of Timor-Leste for Policy and Planning for Skills Development in Secondary Education, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Impact the Technical Assistance Project is Aligned with			
Increased number of technical secondary school graduates with improved practical skills and learning outcomes (National Education Strategic Plan, 2011–2030) ^a			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanism	Risks
Outcome MOE capacity to plan and strengthen quality technical secondary education enhanced	Timelines and budgets for implementing technical school expansion are in place and agreed by school officials	MOE activity plans and policy papers TA progress reports	MOE alters its current plan to expand technical secondary education because of political changes.
Outputs 1. Learning outcomes and labor market demand for priority skills programs in secondary education assessed	1a. Learning outcomes and destinations of graduates assessed in a sample of proposed new and existing technical schools by March 2017, with attention to gender differences 1b. Cost-effectiveness of skills programs assessed for existing technical schools by March 2017, separately for males and females 1c. Appropriateness of and market demand for MOE's priority skills programs (e.g., accounting, maritime and fisheries, information technology skills) assessed by March 2017 1d. At least four priority skills programs identified based on labor market relevance and demand, as well as cost-effectiveness and with attention to gender by July 2017 1e. Training needs for teachers assessed in a sample of proposed new and existing technical schools, and upgrading strategies recommended by July 2017 1f. Physical facilities and equipment needs assessed for proposed new and existing technical schools to improve the relevance of practical skills training by July 2017	1a–1f. TA progress and assessment reports by MOE	1a–1f. School officials do not fully cooperate for various assessments.
2. Policy and implementation frameworks to expand and	2a. Proposed priority skills programs for new technical schools discussed, based on assessment results, and agreed to by MOE and school officials by July 2017,	2a–2d. TA progress reports	2b. MOE officials, SEPFOPE, and INDMO have

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanism	Risks
improve technical secondary education developed	<p>with special attention to equal opportunities for males and females</p> <p>2b. MOE, SEPFOPE, and INDMO agree on assessment and certification mechanisms for technical secondary graduates by November 2017</p> <p>2c. Pilot implementation plans for at least two agreed priority skills programs developed with financial and human resource requirements by November 2017</p> <p>2d. Phased implementation strategies developed for new technical schools by November 2017</p>		<p>difficulty agreeing on the application of existing certification mechanisms for skills training</p> <p>2c–2d. School officials and parents resist the policy to transform general schools into technical schools.</p>
3. Planning and managerial capacity of MOE and school officials for quality technical education enhanced	<p>3a. MOE organizes at least two workshops to discuss the technical school expansion plan with school officials by September 2017</p> <p>3b. MOE and school officials undertake study visits by September 2017</p> <p>3c. At least two capacity-building workshops organized to strengthen management practices for technical education by March 2018</p> <p>3d. MOE officials develop investment strategies for expanding quality technical education with specific financing options by March 2018</p> <p>3e. MOE commences pilot implementation of technical school expansion (for one or two schools) by September 2018</p>	3a–3e. TA progress reports	<p>3e. MOE lacks sufficient budget to begin pilot implementation.</p>

Key Activities with Milestones

1. **Learning outcomes and labor market demand for priority skills programs in secondary education assessed**
 - 1.1 Based on a review of existing labor market and tracer studies, undertake additional studies and interviews with employers to assess market demand for skills programs and the effectiveness of existing skills programs in technical secondary schools (August 2016–March 2017)
 - 1.2 Assess the appropriateness of and labor market demand for MOE's priority skills programs (e.g., accounting, maritime and fisheries, information technology), identify other skills programs based on labor market and community development needs, and develop a list of priority skills programs based on labor market needs and cost implications (August 2016–March 2017)
 - 1.3 Undertake assessments of students' learning outcomes at existing and proposed new technical schools, review the relevance of curriculum and textbooks, and recommend options to improve learning and practical skills outcomes (August 2016–March 2017)

<p>1.4 Based on a list of priority skills programs for proposed additional technical schools, undertake a training needs assessment for teachers and recommend modalities for teacher training; and assess the need to upgrade school facilities and equipment, and develop cost estimates per school (March–July 2017)</p> <p>2. Policy and implementation frameworks to expand and improve technical secondary education developed</p> <p>2.1 Present all assessment results to MOE officials, agree on the list of priority skills programs (at least four skill areas), and confirm the scope of policy and implementation frameworks for expanding quality technical education (February–July 2017)</p> <p>2.2 MOE discusses with SEPFOPE and INDMO the assessment and certification mechanisms for technical school graduates; MOE agrees on the application of existing qualifications and associated requirements; and prepares necessary policy guidelines for the agreed framework (March–November 2017)</p> <p>2.3 Review current funding mechanisms for technical schools and develop financing options to improve the quality of learning and practical skills training in technical schools (March–September 2017)</p> <p>2.4 Develop pilot implementation plans for at least two agreed priority skills programs in selected technical secondary schools, with financing and human resource requirements (March–September 2017)</p> <p>2.5 Develop phased implementation strategies for transforming selected general schools into technical schools, together with resource requirements per school (March–September 2017)</p> <p>2.6 Design specific strategies to build close linkages with community and industry needs at each of the technical schools, in consultation with industry and community representatives and school administrators (June–November 2017)</p> <p>2.7 MOE prepares specific work plans for implementation of technical school expansion (September 2017–March 2018)</p> <p>3. Planning and managerial capacity of MOE and secondary school officials for quality technical education enhanced</p> <p>3.1 Identify specific areas of capacity development needs for MOE and school officials, and design work programs for capacity-building activities (October–December 2016)</p> <p>3.2 MOE and school officials undertake an overseas study visit to observe successful management practices in high-performing technical and vocational schools (February–September 2017)</p> <p>3.3 Implement capacity-building consultations and workshops for MOE and school officials, and discuss specific implementation steps for technical school expansion (November 2016–March 2018)</p> <p>3.4 MOE develops specific investment strategies to implement the expansion of technical secondary schools in relation to its other priorities (November 2017–March 2018)</p> <p>3.5 MOE begins pilot implementation of technical education expansion in one or two priority schools, based on MOE’s resource availability (June–September 2018)</p>
<p>Inputs</p> <p>Asian Development Bank: \$1,000,000</p> <p>Note: The government will provide counterpart support in the form of counterpart staff, office accommodation for consultants, logistic support and coordination with school officials, and other in-kind contributions.</p>
<p>Assumptions for Partner Financing</p> <p>Not applicable.</p>

INDMO = Instituto Nacional de Desenvolvimento de Mão-de-Obra (National Labour Force Development Institute), MOE = Ministry of Education, SEPFOPE = Secretaria de Estado para a Política de Formação Profissional e Emprego (Secretariat of State for Professional Training and Employment Policy), TA = technical assistance.

^a Government of Timor-Leste, Ministry of Education. 2011. *National Education Strategic Plan, 2011–2030*. Dili. Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	550.0
ii. National consultants	145.0
b. International and local travel	60.0
c. Reports, translation, and communications	15.0
2. Equipment ^b	10.0
3. Training, seminars, and conferences ^c	40.0
4. Study visits	20.0
5. Surveys	40.0
6. Miscellaneous administration and support costs	20.0
7. Contingencies	100.0
Total	1,000.0

Note: The technical assistance (TA) is estimated to cost \$1,080,000, of which contributions from the Asian Development Bank are presented in the table above. The government will provide counterpart support in the form of counterpart staff, office accommodation for consultants, logistic support and coordination with school officials, and other in-kind contributions. The value of government contribution is estimated to account for approximately 7.4% of the total TA cost.

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-other sources).

^b Information technology and office equipment, such as computers and printers. The equipment will be turned over to the executing agency after TA completion.

^c This may include facilitators or resource people.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. The technical assistance (TA) will be implemented over approximately 30 months from the time of mobilizing consultants. Consultants will be recruited in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time) of the Asian Development Bank (ADB). ADB will engage two national consultants through individual consultant selection method. A team of other international and national consultants will be recruited through a firm. The consulting firm will be selected for an output-based contract, using the simplified technical proposal procedure. The TA will finance approximately 104 person-months of consulting services, comprising (i) 29 person-months of international consultants, and (ii) 75 person-months of national consultants.

A. Individual Consultants

2. **TA advisor and team leader** (national, 30 person-months). The advisor will support the director general for secondary education at the Ministry of Education (MOE) for overall guidance and supervision of TA activities. Specifically, the advisor will be responsible for preparing implementation schedules and facilitating all assessment activities in close discussion with a consulting firm. The advisor will also work closely with the international technical advisor and a consulting firm to deliver the TA outputs in a timely manner, and communicate the TA progress and outcomes to MOE senior officials. The advisor will report to the director general. The key tasks include the following:

- (i) Prepare overall TA implementation plans, and provide guidance to the consulting firm in preparing assessment work plans and selecting a sample of general and technical schools for assessments.
- (ii) Together with the international technical advisor, undertake consultations with school officials to discuss the objectives of assessments (e.g., student learning outcomes, training needs for teachers).
- (iii) Facilitate arrangements for the consulting firm to undertake assessments at the school level, with close attention to sequencing and timelines of assessments.
- (iv) Together with the international technical advisor, identify specific areas to improve planning and managerial capacity of MOE and school officials regarding technical education, and organize and deliver capacity development workshops throughout TA implementation.
- (v) Undertake consultations with industry representatives to identify ways to strengthen linkages between technical education and employer needs, and design capacity-building sessions for MOE and school officials by engaging industry representatives.
- (vi) Provide guidance and support to the international technical advisor in developing policy and implementation frameworks for expanding quality technical schools by consulting all stakeholders, including the Secretariat of State for Professional Training and Employment Policy, National Labour Force Development Institute, district officials, industry groups, and community representatives.
- (vii) Communicate closely with MOE and school officials on TA activities, and make adjustments, if necessary, for TA implementation plans based on feedback.
- (viii) Prepare monthly briefing notes on TA progress and work activities (both in English and Tetum) for submission to MOE senior officials and ADB.

3. The TA advisor and team leader will (i) have a university degree and at least 10 years of experience in education or management in relation to technical and vocational education and training (TVET); (ii) be familiar with the workings of MOE and other government agencies, as

well as school operations in Timor-Leste; (iii) have proven ability in managing and coordinating development-related projects and programs, preferably in education or TVET; (iv) have a demonstrated track record in effective engagement of government officials and other stakeholders for consultations; (v) have excellent communication skills (both written and spoken), including report writing in English; and (vi) have a working knowledge of Portuguese.

4. **TA support coordinator** (national, 32 person-months). The coordinator will provide administrative and logistic support for TA activities by assisting the director general for secondary education and the TA national advisor. The coordinator will assist by coordinating and facilitating various assessments at the school level by the consulting firm; preparing travel and logistic arrangements for workshops or meetings related to capacity development and consultations; communicating with district and school officials, and other stakeholders on TA activities; and carrying out administrative or coordination tasks related to TA activities, as requested. The coordinator will have (i) at least a university degree or equivalent; (ii) at least 5 years of experience working in government agencies, preferably education-related fields; (iii) experience in managing workshops or consultations with various stakeholders; and (iv) excellent communication skills, both oral and written, in Tetum and English.

B. Consulting Firm

5. The consulting firm will be recruited to deliver specific TA technical outputs. The international technical advisor, guided by the national TA advisor and team leader, will coordinate work plans and timelines of all activities. The international technical advisor will be responsible for delivering TA outputs in a timely manner and ensuring the quality of outputs from all other consultants. The specific outputs to be produced by the firm include (i) an assessment of learning outcomes among a sample of general and technical secondary students; (ii) a review of curriculum relevance and recommendations for improvement; (iii) an analysis of the recurrent unit costs of secondary education; (iv) an analysis of the cost-effectiveness of existing skills programs, separately for males and females; (v) a report on training needs assessments of teachers in a sample of existing and proposed technical schools; (vi) recommendations for priority skills programs for technical education expansion, including cost estimates for required upgrades per school; (vii) phased implementation plans for transforming selected general schools into technical schools, along with specific investment strategies that include financial and human resource requirements; (viii) pilot implementation plans for one or two priority technical schools; and (ix) delivery of capacity development workshops for MOE and school officials. Specific experts to be recruited for the assignments are as follows.

6. **Technical advisor** (international, 15 person-months, intermittent). The advisor will be responsible for delivering all TA outputs from the firm by supervising timely implementation and quality of outputs from the firm's specialists. The advisor will: (i) support the director general for secondary education and the national TA advisor for overall TA implementation; (ii) provide expert advice on developing and improving technical secondary education; and (iii) work closely with the national TA advisor in planning, delivering, and communicating all TA outputs with relevant stakeholders. The advisor will report to the director general for secondary education through the national TA advisor. The key tasks include the following:

- (i) In consultation with the national TA advisor, prepare detailed implementation plans for TA activities with special attention to sequencing and timelines of various assessments to be carried out by specialists from the consulting firm.
- (ii) Supervise all assessment activities, ensuring the quality and timely delivery of assessment reports and communicating TA progress to MOE and school officials.

- (iii) Provide guidance to the economic and financial analyst on priority skills programs for additional technical schools, in consultation with industry representatives on labor market needs for the types and level of skills preparations in secondary schools.
- (iv) Based on assessment results from other specialists (output 1), develop implementation plans (output 2) to transform selected general secondary schools to technical schools in a phased manner, including options for specific skills programs for each of the selected schools; the scope of required upgrades for facilities, equipment, and teacher training; estimated costs of implementation plans; specific strategies to improve the quality and relevance of learning and skills programs in secondary schools; and specific implementation plans with financial and human resource requirements that can be communicated to the Ministry of Finance by MOE officials.
- (v) By working closely with senior officials of MOE, the Secretariat of State for Professional Training and Employment Policy, and the National Labor Force Development Institute, as well as industry representatives, recommend a detailed framework to apply existing quality assurance mechanisms to technical secondary education and to ensure vertical and lateral pathways for a more integrated skills development system—linking technical secondary education to formal postsecondary TVET and tertiary education.
- (vi) Identify specific needs for strengthening planning and managerial capacity of MOE and school officials to improve the quality and relevance of technical education, and design and implement capacity development training throughout TA implementation.
- (vii) Provide overall strategic advice and planning assistance on technical education expansion plans to senior MOE officials and other stakeholders throughout the TA.

7. The advisor will have (i) extensive international expertise (10 years minimum) in policy development and management of secondary education, particularly TVET programs; (ii) an advanced degree in education, management, economics, or related fields, with specialized experience in developing technical and vocational programs in the formal education system, preferably in the context of both developing and developed countries; (iii) a proven ability to develop TVET implementation plans with details on resource requirements for financing, teacher training, and other technical inputs; (iv) demonstrated track record in leading a team of international and national specialists, and delivering timely outputs on school reforms, policies, and/or planning documents; (v) excellent personal communication skills to carry out policy dialogue with senior government officials and various stakeholders on school reforms in developing country contexts; (vi) excellent writing skills to prepare analytic reports and policy implementation documents in English; (vii) working knowledge of Portuguese (required); and (viii) familiarity with the education system or TVET in Timor-Leste (an advantage).

8. **Economic and financial analyst** (international, 6 person-months, intermittent). Based on a review of existing studies, the analyst will undertake additional surveys and interviews with relevant stakeholders to assess the overall effectiveness of existing skills programs in secondary schools, recommend a list of priority skills programs for additional technical schools, and provide inputs on estimated costs and financing options for implementing technical school expansion plans. The key tasks include the following:

- (i) Based on a review of existing labor market studies (e.g., labor force surveys, enterprise skills surveys), TVET tracer studies, and interviews with industry representatives, the analyst will design and carry out additional studies and/or

surveys to assess the overall effectiveness of existing technical education programs at the secondary level, especially their cost-effectiveness. The analyst will:

- (a) analyze unit recurrent costs per enrollment and per graduate, disaggregated by sex as much as possible;
 - (b) analyze employment outcomes among technical secondary school graduates based on existing studies, additional tracer surveys, and focus group discussions with a sample of graduates;
 - (c) identify strengths and weaknesses of current technical secondary education based on consultations with stakeholders, especially employers; and
 - (d) address external and internal efficiencies of technical secondary education programs in terms of employment and earnings, with special attention to gender differences.
- (ii) Based on a review of existing labor studies and consultations with employers, community representatives, and other stakeholders, the analyst will assess the appropriateness of and labor market demand for MOE's priority skills programs (e.g., accounting, maritime and fisheries, and information technology), identify other skills programs with high economic relevance, and recommend a list of priority skills programs for new technical schools.
 - (iii) Along with recommendations for priority skills programs, the analyst will provide concrete strategies to strengthen the relevance of practical skills training in existing and new technical schools, as well as ways to strengthen industry linkages.
 - (iv) In collaboration with the international technical advisor, the analyst will analyze recent budgets and expenditures for secondary education, especially technical education, and assess the amount of investment required to implement MOE's technical education expansion to significantly improve the quality and relevance of skills training.

9. The analyst will have (i) a postgraduate degree in economics, labor economics, or other related field; (ii) at least 10 years of relevant experience in working in developing countries, focusing on TVET policy and systems development; (iii) demonstrated expertise in economic and financial analyses in the education and/or TVET sectors; (iv) excellent communication skills to consult with stakeholders at various levels in the government, private sector, and local communities; (v) excellent writing skills in English to prepare assessment reports and policy documents with a succinct presentation of economic and financial analyses; (vi) proven record in working as a team member to produce quality outputs; and (vii) working knowledge of Portuguese (an advantage).

10. **Learning assessment and curriculum specialist** (international, 4 person-months). The specialist will have extensive knowledge and experience in assessing students' learning outcomes and secondary education curriculum, especially for technical and vocational education. The specialist will (i) administer a learning outcomes test for a sample of general and technical secondary students (e.g., basic reading and mathematics using internationally comparable tests) and establish baseline data for core learning areas; and (ii) review the existing curriculum for technical education, identifying areas for improvement in basic learning outcomes and recommending specific options to enhance the quality and relevance of technical secondary education. The specialist will have (i) a university degree in education or related fields; (ii) a minimum of 7 years of work experience in education management or reforms for secondary education, including technical education; (iii) extensive experience in reviewing the

curriculum for technical education in developing countries; and (iv) substantial experience in pilot administration of learning assessment tests for secondary students.

11. **Teacher training and management specialist** (international, 2 person-months). Based on a review of priority skills programs and existing curriculum for additional technical schools, the specialist will (i) undertake training needs assessments for teachers of general academic and technical subjects, and recommend general capacity-building activities; (ii) assess management capacity of school administrators in technical schools, and recommend specific capacity-building programs for implementation; (iii) recommend specific modalities to upgrade teachers' pedagogic and technical skills for priority skills programs, based on a review of existing policies regarding teacher qualifications, preservice, in-service, and related teacher training programs; and (iv) collaborate with a TVET school facilities and equipment specialist to recommend curriculum and training materials for teachers on handling equipment, machines, and occupational safety for selected skills programs, as needed. The specialist will have (i) at least a university degree in education, training management, human resource development, or related fields; (ii) a minimum of 7 years of extensive experience in conducting training needs assessments and developing teacher training programs related to TVET in developing countries; and (iii) excellent communication and writing skills, including report writing in English.

12. **TVET school facilities and equipment specialist** (international, 2 person-months). Based on priority skills programs proposed for additional technical schools, the specialist will (i) develop technical criteria for school facilities and equipment to improve technical secondary education (the criteria will be developed for general school facilities and skills programs in technical schools, based on national standards developed by MOE's Infrastructure Development Unit); (ii) prepare a list of upgrades necessary for facilities and equipment, including general teaching aids, for designated new technical schools; (iii) develop a standard list of equipment, tools, machines, and facilities for priority skills programs in technical schools, along with cost estimates; and (iv) in collaboration with the teacher training specialist, identify appropriate training modalities and develop (or recommend) in-country training materials for technical teachers on proper management and handling of facilities, equipment, and occupational safety for selected skills programs. The specialist will have (i) a university degree in engineering, mechanics, technology, or other related fields; (ii) a minimum of 7 years of relevant experience in TVET projects in developing countries assessing school facilities and equipment; (iii) demonstrated experience in preparing cost estimates for skills training facilities and equipment in the formal education system; and (iv) excellent communication and report writing skills.

13. **Education consultants** (national, 13 person-months). The consultants will assist the international specialists from the consulting firm as interpreters and translators for written communications and surveys and/or studies required for all assessment tasks. The consultants will (i) have a university degree in education or related fields; (ii) have at least 5 years of relevant work experience in education assessments or development-related projects; (iii) be familiar with the workings of school systems in Timor-Leste; (iv) be fluent in both written and spoken English with experience as an interpreter; and (v) have excellent communication and organizational skills to support international specialists in undertaking quality technical assessments in a timely manner.