



# Report and Recommendation of the President to the Board of Directors

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Project Number: 50296-002  
August 2018

## Proposed Grant Kingdom of Bhutan: Skills Training and Education Pathways Upgradation Project

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Asian Development Bank



## CURRENCY EQUIVALENTS

(as of 1 August 2018)

Currency unit	–	ngultrum (Nu)
Nu1.00	=	\$0.01460
\$1.00	=	Nu68.4907

## ABBREVIATIONS

ADB	–	Asian Development Bank
IT	–	information technology
MIS	–	management information system
MOE	–	Ministry of Education
MOLHR	–	Ministry of Labor and Human Resources
PAM	–	project administration manual
PMU	–	project management unit
TA	–	technical assistance
TTI	–	technical training institute
TVET	–	technical and vocational education and training

## NOTE

In this report, “\$” refers to United States dollars.

<b>Vice-President</b>	Wencai Zhang, Operations 1
<b>Director General</b>	Hun Kim, South Asia Department (SARD)
<b>Director</b>	Sungsup Ra, Human and Social Development Division, SARD
<b>Team leader</b>	Shanti Jagannathan, Senior Education Specialist, SARD
<b>Team members</b>	Christopher Lee Damandl, Senior Counsel, Office of the General Counsel Zhigang Li, Social Sector Economist, SARD Tshewang Norbu, Senior Country Coordination Officer, SARD Mary Rose T. Ong, Senior Operations Assistant, SARD Jagath Peththawadu, Senior Procurement Specialist, Procurement, Portfolio and Financial Management Department Erwin Salaveria, Associate Financing Partnerships Officer, Office of Cofinancing Operations Deepak Taneja, Principal Treasury Specialist, Treasury Department Francesco Tornieri, Principal Social Development Specialist (Gender and Development), SARD
<b>Peer reviewer</b>	Brajesh Panth, Chief of Education Sector Group, Sustainable Development and Climate Change Department

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## PROJECT AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 50296-002</b>	
<b>Project Name</b>	Skills Training and Education Pathways Upgradation Project	<b>Department /Division</b>	SARD/SAHS
<b>Country Borrower</b>	Bhutan Kingdom of Bhutan	<b>Executing Agency</b>	Ministry of Education, Ministry of Labour and Human Resources
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ <b>Education</b>	Education sector development		3.00
	Technical and vocational education and training		12.00
		<b>Total</b>	<b>15.00</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	CO <sub>2</sub> reduction (tons per annum)	114
	Pillar 3: Extreme deprivation prevented and effects of shocks reduced (Social Protection)	Climate Change impact on the Project	Medium
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	<b>ADB Financing</b>	
		Adaptation (\$ million)	0.08
		Mitigation (\$ million)	0.88
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
Knowledge solutions (KNS)	Knowledge sharing activities	Effective gender mainstreaming (EGM)	✓
Partnerships (PAR)	Implementation Private Sector		
Private sector development (PSD)	Conducive policy and institutional environment		
<b>5. Poverty and SDG Targeting</b>		<b>Location Impact</b>	
Geographic Targeting	No	Nation-wide	High
Household Targeting	No		
SDG Targeting	Yes		
SDG Goals	SDG4		
<b>6. Risk Categorization:</b>	Low		
<b>7. Safeguard Categorization</b>	<b>Environment: B Involuntary Resettlement: C Indigenous Peoples: C</b>		
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>15.00</b>	
Sovereign Project grant: Asian Development Fund		15.00	
<b>Cofinancing</b>		<b>0.00</b>	
None		0.00	
<b>Counterpart</b>		<b>3.00</b>	
Government		3.00	
<b>Total</b>		<b>18.00</b>	

## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed grant to the Kingdom of Bhutan for the Skills Training and Education Pathways Upgradation Project.<sup>1</sup>

2. The project will support the government in expanding and upgrading the technical and vocational education and training (TVET) system for modern, diversified, and job-oriented skills development. Bhutan, a landlocked country with a population of 780,000, has made great strides in basic education, and it now needs to accelerate the development of a skilled workforce to meet the economic needs for competitiveness and sustained growth. Bhutan's Twelfth Five-Year Plan, 2018–2023 prioritizes skills development for jobs.<sup>2</sup>

## II. THE PROJECT

### A. Rationale

3. Bhutan made impressive progress in socioeconomic development over 2007–2017. Its economy grew at an average annual rate of 7.7% during this period.<sup>3</sup> The country doubled its per capita gross domestic product and halved the poverty rate.<sup>4</sup> However, such rapid development was largely driven by the capital-intensive hydropower sector and did not lead to adequate job creation. Economic diversification and job creation are among the top priorities of the government.

4. Bhutan faces high youth unemployment. The youth unemployment rate of 13.2% in 2016 was 6 times the average national unemployment rate and has been rising in recent years.<sup>5</sup> At the same time, employers find it difficult to recruit skilled workers. Skills shortages are one of the critical constraints to the growth of the private sector and diversification of the economy.<sup>6</sup> According to the National Workforce Plan, 2016–2022, based on a survey of employers in three priority sectors (construction, tourism, and production), more than 33% of employers face skills shortages, impacting on productivity and business performance.<sup>7</sup> The National Workforce Plan estimates that 78,000 jobs will be generated by the construction, tourism, and manufacturing sectors during 2016–2022. In 2017, over 14,000 new secondary and tertiary education graduates entered the labor market. Equipping these new graduates with market-oriented skills needed by industry will help reduce the skills shortages.

5. **Challenges in skills development.** The skills development system in Bhutan faces constraints in access. In 2016, only 6.9% of grade 10 students enrolled in TVET. The current

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<sup>1</sup> The Asian Development Bank (ADB) provided \$425,000 in project preparatory technical assistance. ADB. 2016. *Technical Assistance to the Kingdom of Bhutan for the Education and Skills Development Project*. Manila. This TA will be reclassified as a transaction TA, and with supplementary financing of \$500,000, will provide technical support for project implementation.

<sup>2</sup> Government of Bhutan, Gross National Happiness Commission. 2018. *Twelfth Five-Year Plan, 2018–2023 Guidelines*. Thimphu.

<sup>3</sup> ADB. 2018, 2013 and 2011. *Asian Development Outlook*. Manila

<sup>4</sup> Government of Bhutan. National Statistics Bureau. 2017. *National Accounts Statistics and Poverty Analysis Report*. Thimphu. Gross domestic product per capita increased from \$1,335 (current prices) in 2006 to \$2,879 in 2016. The proportion of people living below the national poverty line declined from 23.2% in 2007 to 12.0% in 2012 and to 8.2% in 2017.

<sup>5</sup> Government of Bhutan, Ministry of Labor and Human Resources (MOLHR). 2016. *Labor Force Survey Report 2016*. Thimphu.

<sup>6</sup> ADB. 2013. *Bhutan: Critical Development Constraints*. Manila.

<sup>7</sup> Government of Bhutan, MOLHR. 2016. *National Workforce Plan, 2016–2022: Tourism, Construction and Production Sector*. Thimphu.

annual intake capacity of the public technical training institutes (TTIs) is limited, catering to only about 635 students, compared to 3,000 grade 10 graduates and nearly 6,000 grade 12 graduates entering the workforce in 2016.<sup>8</sup> Outdated equipment in TTIs is in dire need of replacement. Trainers lack capacity and professional development. The TTIs offer courses at the basic certificate level and in traditional areas (e.g., electrical, mechanical, welding, automobile, masonry, plumbing, and carpentry). These are not preferred by youth mainly due to lack of career progression and low social recognition. Opportunities for skills upgrading through advanced courses will lead to better job prospects. In addition, training is required for emerging occupations, including service sector jobs such as information technology (IT) and IT-enabled services, food and beverage, tourism and hospitality, and media and communication. Career guidance with exposure to the world of work to school students will increase their awareness of skills development opportunities leading to jobs.

6. Skills development in the country also faces the challenge of lack of quality and relevance. An estimated 80% of training programs is delivered at the basic certificate level, which does not command much market value. There is a shortage of middle and advanced skills, with demand largely met by foreign workers. International collaborations in TVET will contribute to enhancing the capacities of trainers. IT-based teaching and learning processes in schools and TTIs will help to prepare the youth for an increasingly digital marketplace. Schools are preponderantly geared to academic education without sufficient preparation for the world of work. Labor market surveys reveal that Bhutanese youth do not possess the skills that employers are looking for, which gives rise to skills mismatches. Partnerships with private sector training providers to deliver market-relevant courses will help address such mismatches and improve job placements.

7. **Opportunities in skills development.** The government attaches great importance to skills development for jobs and is highly committed to improving the TVET sector. A number of policy documents provide the basis for this. The TVET Blueprint, 2016–2026 articulates the vision for improving and transforming the skills development system. The Education Blueprint, 2014–2024 outlines priorities for enhancing education quality, including strengthening TVET in schools. The Economic Development Policy of 2016 aims to diversify the economy, which requires appropriately skilled human capital.<sup>9</sup> The government plans to expand capacities for TVET provision, and raise the proportion of higher secondary students enrolling in TVET to 20% by 2024 from the current 6.9%. The government plans to offer more diversified learning opportunities including vocational training to secondary school students (grades 9–12).

8. **Prior experience of the Asian Development Bank.** The Asian Development Bank (ADB) has long-standing experience in supporting TVET and school education in Bhutan.<sup>10</sup> ADB financed the establishment of the TTIs, forming the backbone of public sector TVET institutions, under the Basic Skills Development Project from 2001 to 2006. The validation report by ADB's Independent Evaluation Department noted that the project was instrumental in skilling young labor

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<sup>8</sup> The total capacity of 635 is across all seven public TTIs in Bhutan. The project will cover five major TTIs.

<sup>9</sup> The Economic Development Policy outlines the critical need for diversification beyond the hydropower sector.

<sup>10</sup> Related ADB support includes the following: ADB. 1990. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to the Kingdom of Bhutan for the Technical and Vocational Education and Training Project*. Manila; ADB. 2001. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Bhutan for the Basic Skills Development Project*. Manila; ADB. 2010. *Grant Assistance Report: Proposed Administration of Grant to the Kingdom of Bhutan for the Upgrading Schools and Integrated Disaster Education Project*. Manila; ADB. 2014. *Technical Assistance to the Kingdom of Bhutan for Institutional strengthening for Skills Development*. Manila; and ADB. 2007. *Grant Assistance Report: Proposed Administration of Grant to the Kingdom of Bhutan for the Rural Skills Development Project*. Manila.



market entrants to compete with expatriate labor.<sup>11</sup> Areas for improvement identified include the need for course diversification, diploma courses, and institutionalized industry partnerships, which are included in this project. ADB technical assistance (TA) helped to develop the TVET Blueprint, which provides the vision for reforms and targets in the TVET sector. The government asked ADB to support its implementation.

9. **Value added by the Asian Development Bank's assistance.** ADB is well placed to build on past collaborations in TVET and school education. ADB's value addition will be to (i) help elevate standards in TTIs; (ii) provide green technology equipment for the delivery of existing and new courses in the TTIs;<sup>12</sup> (iii) assist the government in rebranding TVET courses to attract more youth, and modernizing teaching and training pedagogy; (iv) strengthen private sector engagement in the delivery of courses that are in demand in the market; and (v) demonstrate good practices in integrating TVET and career guidance in school education. The grant supports the inclusive economic growth pillar of ADB's country partnership strategy, 2014–2018 and is fully aligned with the government's Twelfth Five-Year Plan.<sup>13</sup> ADB support is crucial to augment the financial and technical capacity of the government to implement the TVET Blueprint. ADB will enable a knowledge sharing forum to bring together key agencies such as Helvetas, the World Bank, the government of Australia, and the Japan International Cooperation Agency to synergize support for TVET, labor market analysis, and capacity development.

## B. Impact and Outcome

10. The project is aligned with the following impact: skilled human capital for equitable socioeconomic development increased. The project will have the following outcome: employability of TVET graduates and secondary school graduates improved.<sup>14</sup>

## C. Outputs

11. **Output 1: Access to skills development increased.** The capacity of five TTIs participating in the project to enroll students for skills training will nearly double by 2023.<sup>15</sup> The TTIs will venture into training for emerging occupations by introducing additional courses. Specifically, the project will (i) establish a new flagship TTI in Thimphu in a new campus with modern facilities and upgraded courses at the diploma level, and improve the TTI in Samthang with new classrooms, workshops, and dormitories; (ii) provide green technology equipment and tools, including IT equipment, in the five TTIs; and (iii) introduce at least six new courses, including at the middle and advanced (diploma) levels and in new disciplines.<sup>16</sup> These much-needed

<sup>11</sup> ADB. 2010. *Completion Report: Basic Skills Development Project in Bhutan*. Manila; and Independent Evaluation Department. 2011. *Validation Report: Basic Skills Development Project in Bhutan*. Manila. The overall performance of the Basic Skills Development Project was rated *partly successful*, as some of the outputs were only partially achieved and the design of project management was fragmented.

<sup>12</sup> Green technology equipment includes Computer Numerical Control machines, three-dimensional workstations for simulation and virtual welders, that will consume less electricity and raw materials. The simulators will supplement theoretical and classroom teaching prior to practice on real machines.

<sup>13</sup> ADB. 2014. *Country Partnership Strategy: Bhutan, 2014–2018*. Manila.

<sup>14</sup> The design and monitoring framework is in Appendix 1.

<sup>15</sup> The annual enrollment capacity in the TTIs in Chumey, Khuruthang, Rangjung, Samthang and Thimphu will increase from 466 in 2017 to 919 in 2023

<sup>16</sup> Diploma courses will be introduced for the first time in the TTIs. The project will introduce national diploma courses in electrical and construction technology; National Certificate Level 3 courses in welding and hybrid automobiles; and courses in diversified disciplines, including computer applications (graphic design and animation), logistics, and packaging and food production.

investments will enable the enrollment of a larger cohort of students in the TTIs as per the TVET Blueprint. This output will benefit a total of 2,200 students in TTIs over 5 years, including an additional 450 students enrolled during the project period (32% female). Increasing access to TVET for women will increase gender equality in workforce participation and wage rates. The introduction of advanced courses will raise the workforce skill level and support the economy's efforts to move up the value chain in the industry and service sectors.<sup>17</sup>

**12. Output 2: Quality and relevance of skills development enhanced.** To enhance the quality and market relevance of TVET, the project will (i) deliver training of trainer programs to at least 60% of trainers in TTIs, offering exposure to training practices by leading regional and/or international TVET institutions, and workplace experience; (ii) deliver skills training in emerging occupations in partnership with private sector training providers and civil society organizations, benefiting 800 students (32% female and 5% persons with disabilities)<sup>18</sup>; and (iii) provide improved teaching and learning resources, including e-resources, in the five TTIs to develop future-ready IT skills in graduates.<sup>19</sup> The upgrading of the capacities of trainers will be undertaken in partnership with international institutions, particularly for the delivery of diploma courses with innovative pedagogy. The project will establish new employment-linked contracts with private sector training providers based on a competitive selection process to assure better job outcomes. Partnerships with civil society organizations will increase opportunities for skills training for jobs or self-employment for disadvantaged youth, particularly those with disabilities. Equal opportunities for women and disadvantaged youth to benefit from higher-quality skills training and training in emerging occupations will lead to better paid jobs and economic and social empowerment.

**13. Output 3: Vocational orientation of secondary school students improved.** To encourage a larger number of secondary school students to take up skills training, the project will support the introduction of TVET elective subjects in seven pilot schools that will be upgraded as "TVET premier schools". Specifically, the project will (i) improve the skills of secondary school students by offering TVET elective subjects in grades 9–12 in seven pilot schools linked to TTIs, benefiting 400 students (32% female); (ii) provide career guidance with exposure to the world of work to secondary students (grades 7–12) benefiting 30,000 students (40% female); and (iii) offer information and communication technology-enriched teaching and learning to improve modern competencies, such as critical thinking, problem solving, teamwork, and communication, in grades 7–12 in the seven pilot schools, benefiting 2,500 students (40% female). These actions will enable secondary school students, including girls, to make appropriate career choices for better job prospects. The project will establish 13 TVET laboratories in the seven pilot schools to offer TVET courses with a structured curriculum and trained junior instructors. The pilot schools will have formal linkages with the five TTIs and one Institute of Zorig Chusum (a training institute for traditional arts and crafts) for curriculum, teacher training, and credit transfer arrangements.

**14. Output 4: Governance and institutional capacity for technical and vocational education and training improved.** The project will (i) operationalize an integrated and web-based TVET management information system (MIS) and an employment services portal; and (ii) facilitate international partnerships for capacity development in at least one TTI. Currently, there is no centralized information system to track the enrollment and progress of students across the

<sup>17</sup> In 2016, industry accounted for 41% of gross domestic product; the service sector accounted for 42%; and agriculture, livestock, and forestry accounted for about 16%.

<sup>18</sup> The private sector training providers will offer courses in tourism and hospitality, food processing and packaging, multimedia, animation and communication, and other areas identified through ongoing needs assessment.

<sup>19</sup> The project will equip the TTIs with a range of e-resources, such as multimedia-based self-learning modules for various courses which will also inculcate problem solving and project-based learning.

TTIs. The new TVET MIS will provide sex-disaggregated data on TVET across the TTIs. An online central admissions system for the TTIs will be introduced. Timely and reliable information and forecasting in key areas of skills demand are needed for TVET providers to effectively develop the required workforce. The MOLHR will host and operate the new TVET MIS and the employment services portal and maintain it during project implementation and beyond. The project will support initiatives to assess future demand. To prepare Bhutanese youth to be globally mobile and competitive, the project will pursue international collaborations and potential institutional twinning for capacity development.

#### D. Summary Cost Estimates and Financing Plan

15. The project is estimated to cost \$18 million (Table 1). Detailed cost estimates by expenditure category and by financier are included in the project administration manual (PAM).<sup>20</sup>

**Table 1: Summary Cost Estimates**  
(\$ million)

Item	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
Output 1: Access to skills development increased	9.76
Output 2: Quality and relevance of skills development enhanced	2.65
Output 3: Vocational orientation of secondary school students improved	2.71
Output 4: Governance and institutional capacity for TVET improved	1.37
<b>Subtotal (A)</b>	<b>16.49</b>
<b>B. Contingencies<sup>c</sup></b>	<b>1.51</b>
<b>Total (A+B)</b>	<b>18.00</b>

TVET = technical and vocational education and training.

<sup>a</sup> Excludes taxes and duties. The executing agency will seek exemption from the levy of taxes and duties on goods and works to be procured in the project. Any residual taxes and duties not exempted will be financed by the government in the form of cash contribution.

<sup>b</sup> In April 2018 prices.

<sup>c</sup> Physical contingencies computed at 12% for civil works and equipment. Price contingencies computed at an average of 5.5%–5.9% on local currency costs and 1.5%–1.9% on foreign exchange costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Sources: Asian Development Bank; and Government of Bhutan.

16. The government has requested a grant not exceeding \$15 million from ADB's Special Funds resources (Asian Development Fund) to help finance the project. The summary financing plan is in Table 2. ADB will finance expenditures in relation to civil works, equipment and goods, and consulting services. ADB will not finance taxes and duties. The government's contribution of \$3 million will finance approximately 44% of civil works.

**Table 2: Summary Financing Plan**

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Special Funds resources (ADF grant)	15.00	83.33
Government	3.00	16.67
<b>Total</b>	<b>18.00</b>	<b>100.00</b>

ADF = Asian Development Fund.

Source: Asian Development Bank.

<sup>20</sup> Project Administration Manual (accessible from the list of linked documents in Appendix 2).

17. Climate mitigation is estimated to cost \$881,000 and climate adaptation is estimated to cost \$78,000. ADB will finance 100% of mitigation costs and 100% of adaptation costs. Details are in the PAM.

## E. Implementation Arrangements

18. The Ministry of Labor and Human Resources (MOLHR) and the Ministry of Education (MOE) will be the executing agencies of the project. The MOLHR will cover outputs 1, 2, and 4, and the MOE will cover output 3. The PMU at the MOLHR, housed in the Department of Technical Education, will act as the coordinating PMU responsible for overall project management and compiling annual project financial reports and quarterly progress reports. The PMU at the MOE will be housed in the Department of School Education. The interministerial project steering committee will be hosted at the MOLHR and provide strategic guidance and oversight to the project. The steering committee will selectively invite representatives from the private sector and other stakeholders to better align skills development and training to market and employer needs. An ongoing TA, with supplementary financing, will support implementation in key areas such as design of new courses for emerging occupations, quality standards and job orientation, innovative delivery of skills development, and learning management systems (footnote 1).

19. The implementation arrangements are summarized in Table 3 and described in detail in the PAM.

**Table 3: Implementation Arrangements**

Aspects	Arrangements		
Implementation period	November 2018–October 2023		
Estimated completion date	31 October 2023		
Estimated grant closing date	30 April 2024		
<b>Management</b>			
(i) Oversight body	Project Steering Committee Secretary, MOLHR (chair) Secretary, MOE (co-chair) Representatives from (i) departments of the MOLHR and MOE, (ii) the MOF and GNHC, and (iii) the private sector (members)		
(ii) Executing agencies	MOLHR, MOE		
(iii) Key implementing agencies	HRSDD, DOEHR, SQD-DOS, RITH, SPBD, CECD-DYS, REC		
(iv) Implementation unit	MOLHR and MOE, Thimphu, about 25 staff		
Procurement	Open competitive bidding (international advertising)	2 contracts (goods)	\$1.56 million
	Open competitive bidding (national advertising)	6 contracts (works) 3 contracts (goods)	\$6.78 million \$1.73 million
Consulting services	CQS	223 person-months	\$2.5 million
	QCBS (including competitive selection of private sector training providers)	88 person-months	\$1.98 million
	Direct contracting	79 person-months	\$900,000
Retroactive financing and/or advance contracting	Advance contracting and retroactive financing of civil works, goods, and consulting services are allowed. Retroactive financing will be up to 20% of the ADB grant amount for eligible expenditures of civil works, goods, and consulting services incurred prior to grant effectiveness but not earlier than 12 months prior to the signing of the grant agreement. All procurement (including consulting services) will follow the ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time).		

Aspects	Arrangements
Disbursement	The grant proceeds will be disbursed following ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB.

ADB = Asian Development Bank; CECD-DYS = Career Education and Counseling Division, Department of Youth and Sports; CQS = consultants' qualifications selection; DOEHR = Department of Employment and Human Resources; GNHC = Gross National Happiness Commission; HRSDD = Human Resource and Skills Development Division (under the Department of Employment and Human Resources); MOE = Ministry of Education; MOF = Ministry of Finance; MOLHR = Ministry of Labor and Human Resources; QCBS = quality- and cost-based selection; REC = Royal Education Council, RITH = Royal Institute for Tourism and Hospitality; SPBD = School Planning and Building Division; SQD-DOS = Standards and Qualification Division under the Department of Occupational Standards.

Sources: ADB; and Government of Bhutan.

### III. DUE DILIGENCE

#### A. Technical

20. The project has strong design features based on the priorities outlined in the government's TVET Blueprint. The budget proposals for the Twelfth Five-Year Plan include provisions for the project, including government counterpart contributions and budget allocation for recurrent costs. The civil works in the project will adopt disaster risk resilient features and include energy-efficient equipment and fixtures. The equipment to be supplied to the TTIs will embody green technologies where possible. The MOLHR and MOE have adequate capacities to undertake curriculum revisions and develop materials and standards for the TVET courses in TTIs and in schools, which will be supplemented with international collaborations and TA. The project will establish performance-based partnership agreements with private sector providers to deliver market-oriented skills training programs with extensive on-the-job training and job placements. The private sector partnerships will extend skills training for fast-growing service sector jobs. The establishment of an online TVET MIS including an online student admissions system, will contribute to improving evidence-based planning and timely implementation.

21. **Climate change.** The project risk is rated *medium* on climate change based on ADB's climate risk screening report.<sup>21</sup> Adaptation measures like retaining walls, and mitigation measures, such as energy efficient lights and appliances, will be incorporated in the design of buildings to ensure that they will be resistant to climate change. The associated carbon dioxide emission reductions from the proposed mitigation measures are estimated to be 114 tons per year.

#### B. Economic and Financial

22. Economic returns from the project will be derived by students transitioning into employment after skills training at the TTIs, TVET premier schools, and on-the-job training in industries, compared to nonparticipants. Industries and employers are expected to benefit from increased availability of skilled workers. A larger number of TVET graduates will benefit from higher wages compared to unskilled workers. The cumulative net incremental benefits will become positive within 4 years of implementation. The project's economic internal rate of return is estimated at a high 19.28% which reflects extensive skills shortages that currently prevail in Bhutan. Sensitivity analysis was carried out with a 20% reduction in quantified benefits and a 20% increase in costs (capital and operations). The economic internal rate of return continued to be more than 6%, indicating that the project is a sound investment.

<sup>21</sup> Climate Change Assessment (accessible from the list of linked documents in Appendix 2).

23. The financial analysis assessed the sustainability of the project at the national and project levels. It assessed the government's capacity and commitment to provide adequate financial support to implement the project and mainstream it after project completion. The analysis concluded that the government has the capacity to absorb and sustain the benefits of the project considering the increased budget allocations proposed for the TVET and school education subsectors in the Twelfth Five-Year Plan.

### C. Governance

24. ADB undertook a detailed financial management capacity assessment of the MOLHR and MOE. Bhutan has made exemplary progress in building its public financial management system to provide fiscal discipline and rational allocation of resources in line with its five-year plans. The government is pursuing further improvements through the Public Financial Management Reform Strategy, 2017–2021 to improve transparency and accountability.<sup>22</sup> Despite strong systems, project financial management risk, prior to mitigation is rated *substantial* primarily because of inadequate capacity for financial management, internal controls on compliance with procedures, control over fixed assets, and timely follow-up on internal and external audits. Mitigation measures include the appointment of full-time financial management personnel in the PMUs (supported by financial management consultants), and improved financial monitoring and asset management controls. The internal audit teams of the respective ministries will present half-yearly internal audit reports to the steering committee. An annual statutory external audit report will be submitted within 6 months of the end of the government financial year.

25. ADB undertook a procurement risk assessment at the country and TVET sector levels. While the procurement system has several strong features such as e-procurement, there are institutional weaknesses in linking procurement planning, budget provisions and fund release, and capacity constraints for timely procurement management and monitoring. Mitigation measures include dedicated full-time procurement staff in the PMUs, supported by intermittent procurement management consultants. A design and supervision consultant will be engaged to monitor all the civil works in the project. ADB will undertake two external fiduciary reviews covering financial management processes and selected post procurement audits. After mitigation, the project's financial management and procurement risks are *moderate*. The detailed risk mitigation plan is included in the PAM.

26. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the MOLHR and MOE. The specific policy requirements and supplementary measures are described in the PAM.<sup>23</sup>

### D. Poverty, Social, and Gender

27. The project has pro-poor and gender-sensitive dimensions. The main beneficiaries will be the youth who have completed grade 10 and can pursue job-oriented skills development. The project provides opportunities to rural youth.<sup>24</sup> The majority of students taking up TVET come from

<sup>22</sup> Government of Bhutan, Ministry of Finance. 2017. *Public Financial Management Reforms Strategy, 2017–2021*. Thimphu.

<sup>23</sup> The Anticorruption Commission of Bhutan is currently investigating some of the MOLHR's training programs. The MOLHR will provide an action plan on the findings when the inquiry has been completed.

<sup>24</sup> The five TTIs participating in the project are located in the far east (Rangjung), in the central region (Chumey), in the west (Khuruthang and Samthang), and in the capital city of Thimphu. All TTIs offer free training and free residential facilities, ensuring affordability of training for members of poor communities.

families in which the head of household has little or no education and comes from an agro-farming background.<sup>25</sup> The government is proactively tackling the issue of unemployment among youth, who are currently recognized as a vulnerable group in Bhutan.<sup>26</sup> The project will offer affordable skills training programs to poor youth while also providing skills upgradation to workers through diploma courses which will enable them to access better paid jobs.

28. Female secondary school students and TVET trainees will benefit from skills development and career counseling. In line with the target to increase female enrollment in TTIs, 32% of residential facilities will be reserved for female students. Training delivery through private sector training providers includes mandatory targets for females and people with disabilities. Media campaigns and advocacy will be undertaken to encourage poor and female students to avail of free TVET opportunities, and break gender stereotypes. While the project will support participation of women in courses that are popular among females (such as tourism and hospitality, tailoring and/or dressmaking, food packaging, IT and IT-enabled services, design, and animation), it will also encourage women to take up male-dominated courses in sectors such as automotive and construction based on interest and job market demand.

## E. Safeguards

29. In compliance with ADB's Safeguard Policy Statement (2009), the project's safeguard categories are as follows.<sup>27</sup>

30. **Environment (category B).** Potential impacts are mainly associated with construction of new buildings for TTIs and include increased noise and dust levels, waste generation, and traffic congestion. These impacts are temporary and of short duration and can be mitigated through the environmental management plan, environmental monitoring plan, and compliance with relevant government regulations. The initial environmental examination was disclosed on the ADB website on 15 June 2018. An environment safeguard specialist will monitor and report on compliance with ADB environmental requirements during implementation. The PMUs will set up a project grievance redress mechanism to resolve complaints in a timely manner. Consultations with stakeholders were undertaken during project preparation.

31. **Involuntary resettlement (category C).** The project entails no land acquisition, resettlement, or any physical and economic displacement. Improvements to buildings and facilities will take place within existing campuses and/or premises owned by the government.

32. **Indigenous peoples (category C).** Bhutan does not have any officially defined "indigenous peoples." The project's inclusive approach will provide poor and vulnerable students from different parts of the country with access to skills development and training. No indigenous peoples, as per ADB's Safeguard Policy Statement, will be affected by the project.

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<sup>25</sup> Government of Bhutan, MOLHR. 2016. *Bhutan TVET Sector Assessment, Blueprint Working Paper*. Thimphu. A family background survey of TVET graduates indicated that 63.5% of respondents come from families where the head of household has no education, and 47.8% from families where the head of household is engaged in agro-farming.

<sup>26</sup> Government of Bhutan, Gross National Happiness Commission Secretariat. 2016. *Bhutan Vulnerability Baseline Assessment 2016*. Thimphu.

<sup>27</sup> ADB. Safeguard Categories. <https://www.adb.org/site/safeguards/safeguard-categories>.

## F. Summary of Risk Assessment and Risk Management Plan

33. Significant risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.<sup>28</sup>

**Table 4: Summary of Risks and Mitigating Measures**

<b>Risks</b>	<b>Mitigation Measures</b>
The training offered is of inadequate quality and not relevant to market needs and hence does not address skills shortages.	The project will enable extensive consultations with the private sector to strengthen delivery of market-relevant courses in TVET institutions, which will improve employability of graduates. The project provides for revamped and longer on-the-job training to supplement institutional training, which will enhance workplace experience and the potential for job placements.
Inadequate financial management and procurement capacity in the executing agencies may impede timely project implementation.	The executing agencies will assign dedicated financial management and procurement staff to the two PMUs. Procurement and financial management consultants will support timely procurement processes and financial reporting. An international design and supervision consultant will further support the PMU for effective procurement of civil works.
Delays in the appointment of qualified additional trainers in the TTIs and junior instructors to deliver vocational training in schools because of lack of timely availability of capable personnel.	The PMUs will recruit suitable trainers and junior instructors, including temporary staff, if required. The PMUs will implement training and capacity building for the newly recruited trainers and junior instructors to ensure timely introduction of new courses in the TTIs and schools.

PMU = project management unit, TTI = technical training institute, TVET = technical and vocational education and training.

Source: Asian Development Bank.

## IV. ASSURANCES

34. The government and the MOLHR and MOE have assured ADB that implementation of the project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and grant documents.

35. The government and the MOLHR and MOE have agreed with ADB on certain covenants for the project, which are set forth in the draft grant agreement.

## V. RECOMMENDATION

36. I am satisfied that the proposed grant would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the grant not exceeding \$15,000,000 to the Kingdom of Bhutan from ADB's Special Funds resources (Asian Development Fund), for the Skills Training and Education Pathways Upgradation Project, on terms and conditions that are substantially in accordance with those set forth in the draft grant agreement presented to the Board.

Takehiko Nakao  
President

2 August 2018

<sup>28</sup> Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).



## DESIGN AND MONITORING FRAMEWORK

Impact the Project is Aligned with Skilled human capital for equitable socioeconomic development increased <sup>a</sup>			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<b>Outcome</b> Employability of TVET graduates and secondary school graduates improved	<b>By 2024:</b> a. 60% of TTI graduates employed or self-employed within 6 months of completing their course (30% of employed graduates are female) (2016 baseline: 55% <sup>b</sup> )  b. 60% of secondary school graduates with TVET electives employed or enrolled in higher TVET courses within 6 months of completing their course (30% of employed or enrolled graduates are female) (Baseline: to be established in 2018)  c. At least 60% of employers surveyed expressed satisfaction with TVET graduates (Baseline: to be established in 2018)	a. TVET MIS and tracer studies and/or impact assessment survey  b. Trace studies and/or impact assessment survey  c. Employer satisfaction survey	External shocks adversely affect the economy, impacting growth and jobs.
<b>Outputs</b> 1. Access to skills development increased	<b>By 2023:</b> 1a. Annual enrollment capacity of five TTIs increased to 919 (Baseline: 466 students in 2017)  1b. Infrastructure facilities improved at TTI Thimphu and TTI Samthang, benefiting a total of 830 students, including an additional 250 students enrolled during the project period (Baseline: 152 students enrolled in TTI Thimphu and TTI Samthang in 2017)  1c. Advanced and green technology equipment and tools, including IT equipment and e-resources provided in five TTIs, benefiting a total of 2,200 students, including an additional 450 students enrolled during the project (32% female) (Baseline: 466 students enrolled in 2017; 29% female)  1d. At least six new middle- and advanced-level courses in diversified disciplines introduced in five TTIs, benefiting 250 students <sup>c</sup> (Baseline: not applicable)	1a. Project progress report; admission records of TTIs to track increase in enrollments  1b–d. Project progress report, TVET MIS	Delays in the appointment of qualified additional trainers in the TTIs and junior instructors to deliver vocational training in schools because of lack of timely availability of capable personnel.

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
2. Quality and relevance of skills development enhanced	<p><b>By 2023:</b></p> <p>2a. Improved training of trainer programs with workplace experience provided to 60% trainers in TTIs (30% of trained trainers are female) (Baseline: not applicable)</p> <p>2b. Private sector partnership for skills delivery in emerging occupations implemented, benefiting 800 youth (32% female and 5% students with disabilities) (Baseline: not applicable)</p> <p>2c. Improved teaching and learning resources, particularly e-resources, made operational in five TTIs to develop future-ready skills in graduates (Baseline: not applicable)</p>	2a–c. Project progress report	The training offered is of inadequate quality and not relevant to market needs and hence does not address skills shortages.
3. Vocational orientation of secondary school students improved	<p><b>By 2023:</b></p> <p>3a. TVET elective subjects piloted in seven schools (linked to TTIs) to improve skills of secondary school students in grades 9–12, benefiting a total of 400 students (32% female) (Baseline: not applicable)</p> <p>3b. Career guidance services with exposure to the world of work introduced in secondary schools (grades 7–12) benefiting a total of 30,000 students (40% female) (Baseline: not applicable)</p> <p>3c. IT-enabled teaching and learning to improve foundational skills of grade 7–12 students in seven pilot schools made operational, benefiting a total of 2,500 students (40% female) (Baseline: not applicable)</p>	<p>3a. Department of School Education MIS</p> <p>3b–3c. Project progress report and/or impact assessment survey</p>	The policy commitment of the government of Bhutan for TVET in schools is not sustained.
4. Governance and institutional capacity for TVET improved	<p><b>By 2023:</b></p> <p>4a. Integrated and web-based MIS for TVET and employment services portal made operational (2017 Baseline: multiple stand-alone MISs)</p> <p>4b. International partnership for capacity development established in one TTI (Baseline: not applicable)</p>	4a–4b. Project progress report with data disaggregated for gender	Inadequate financial management and procurement capacity in the executing agencies may impede timely project implementation.

<p><b>Key Activities and Milestones</b></p> <p><b>1. Access to skills development increased</b></p> <p>1.1. Prepare detailed plans to increase enrollment capacity of TTIs, and introduce new higher-level courses such as National Certificate Level 3 and diploma courses (December 2018)</p> <p>1.2. Provide modern facilities and equipment in TTIs (December 2020)</p> <p>1.3. Undertake infrastructure upgrade and delivery of equipment (June 2019–December 2020)</p> <p>1.4. Develop and roll out new courses for emerging occupations, including IT-related courses (January 2020–August 2023)</p> <p><b>2. Quality and relevance of skills development enhanced</b></p> <p>2.1. Undertake development of training of trainer modules (technical and new pedagogies) (mid-2019)</p> <p>2.2. Develop, procure, and implement multimedia-based TLM for TTIs (December 2020)</p> <p>2.3. Develop curriculum for new courses and update curriculum and certification of TTI courses aligned to BVQF (December 2020–December 2022)</p> <p>2.4. Prepare framework for partnership with private sector for industry engagement (January 2019)</p> <p>2.5. Undertake capacity building for curriculum and standards development (February 2019–February 2020)</p> <p>2.6. Finalize agreements with private sector for delivery of skills development (January 2019)</p> <p><b>3. Vocational orientation of secondary education students improved</b></p> <p>3.1. Construct TVET labs (January 2019–August 2019) and train junior instructors in TVET optional subjects (June 2019–June 2022)</p> <p>3.2. Introduce TVET optional courses in seven pilot schools (2020–2023)</p> <p>3.3. Develop IT-enabled packages for teaching and learning with teacher training (January 2020)</p> <p>3.4. Implement activities to strengthen vocational clubs (December 2019–July 2020)</p> <p>3.5. Provide career guidance and counseling services in all secondary schools (2020–2023)</p> <p><b>4. Governance and institutional capacity for TVET improved</b></p> <p>4.1. Design and implement an integrated and web-based TVET MIS, including online and centralized student admissions system for TTIs (December 2019–2021)</p> <p>4.2. Conduct tracer studies (January 2019–October 2023)</p> <p>4.3. Develop partnerships for international twinning arrangement for one TTI (December 2020–2023)</p>
<p><b>Inputs</b></p> <p>ADB: \$15 million (grant)</p> <p>Government: \$3 million</p>
<p><b>Assumptions for Partner Financing</b></p> <p>Not Applicable</p>

ADB = Asian Development Bank, BVQF = Bhutan Vocational Qualifications Framework, ICT = information and communication technology, IT = information technology, MIS = management information system, TLM = teaching-learning material, TTI = technical training institute, TVET = technical and vocational education and training.

<sup>a</sup> Defined by project.

<sup>b</sup> Government of Bhutan, Ministry of Labor and Human Resources. 2016. *Bhutan TVET Sector Assessment, Blueprint Working Paper*. Thimphu.

<sup>c</sup> The project will introduce national diploma courses in electrical and construction technology; National Certificate Level 3 courses in welding and hybrid automobiles; and courses in diversified disciplines, including computer applications (graphic design and animation), logistics, and packaging and food production.

Source: ADB and Government of Bhutan.

### **LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/RRPs/?id=50296-002-2>

1. Grant Agreement
2. Sector Assessment (Summary): Education
3. Project Administration Manual
4. Contribution to the ADB Results Framework
5. Development Coordination
6. Financial Analysis
7. Economic Analysis
8. Country Economic Indicators
9. Summary Poverty Reduction and Social Strategy
10. Risk Assessment and Risk Management Plan
11. Climate Change Assessment
12. Gender Action Plan
13. Initial Environmental Examination

### **Supplementary Document**

14. Financial Management Assessment