



# Technical Assistance Report

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Project Number: 46234  
Capacity Development Technical Assistance (CDTA)  
September 2012

Republic of the Philippines: Strengthening  
Knowledge-Based Economic and Social Development  
(Financed by the Republic of Korea e-Asia and Knowledge  
Partnership Fund)

Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 27 August 2012)

Currency Unit	–	peso (P)
P1.00	=	\$0.0237
\$1.00	=	P42.21

## ABBREVIATIONS

AIM	–	Asian Institute of Management
ADB	–	Asian Development Bank
AdEPT	–	advanced English pre-employment training
BPAP	–	Business Processing Association of the Philippines
BPO	–	business process outsourcing
CHED	–	Commission on Higher Education
GCAT	–	global competitiveness assessment tool
HEI	–	higher education institution
ICT	–	information and communication technology
IT	–	Information technology
SMP	–	service management program
TA	–	technical assistance
UP	–	University of the Philippines
UPOU	–	University of the Philippines Open University

## TECHNICAL ASSISTANCE CLASSIFICATION

Type	–	Capacity development technical assistance (CDTA)
Targeting classification	–	General intervention
Sector (subsectors)	–	Education (tertiary and higher education; industry and trade sector development; information and communication technology)
Themes (subthemes)	–	<b>Economic growth</b> (knowledge, science, and technological capacities), social development (human development), capacity development (client relations, network, and partnership development), gender equity (human capabilities; economic opportunities)
Location (impact)	–	Rural (medium), urban (medium), national (high)
Partnership	–	Republic of Korea e-Asia and Knowledge Partnership Fund

## NOTE

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

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## I. INTRODUCTION

1. The Government of the Philippines requested through its Department of Finance that the Asian Development Bank (ADB) provide capacity development technical assistance (TA) to address skills shortages in high-growth industries by aligning higher education curricula with international standards and labor market demand, while building on public and private initiatives. The TA will use knowledge hubs to develop replicable models for (i) strengthening links among the government, industry, and higher education institutions (HEIs) in the information technology and business process outsourcing (IT–BPO) industry; (ii) sharing and learning regional knowledge and experiences; and (iii) supporting other high-growth industries.<sup>1</sup> During the fact-finding mission on 26 April–4 May 2012, the government and ADB agreed on TA scope, implementation arrangements, cost, financing arrangements, and terms of reference. The TA design and monitoring framework is in Appendix 1.<sup>2</sup>

## II. ISSUES

2. Faced with the challenge of moving the economy into new areas with higher growth and job creation, the government is strengthening its education system to meet the labor demands of innovative and growing industries. The Philippines needs to improve its competitiveness by prioritizing sectors in which the country has competitive advantages and ensuring a reliable labor supply chain. Studies indicate that Philippine membership in the Association of Southeast Asian Nations; a large, young, and well-educated workforce; and improved access to fast-growing markets situate the country well to attract large investments that can generate significant numbers of new high-quality jobs in key sectors such as IT–BPO.<sup>3</sup>

3. IT–BPO is the Philippine sector with the fastest-growing employment, and it ranks high for generating revenue.<sup>4</sup> From 2004 to 2009, employment in IT–BPO grew by 34.5% annually and revenues by 37.9%. Revenues generated by the industry reached \$8.9 billion in 2010.<sup>5</sup> IT–BPO employed 638,000 workers at the end of 2011, two-thirds in the voice segment. In 2010, the country surpassed India in terms of voice-related outsourced work to become the global leader in this segment. The industry is now expanding its higher-value and more complex services, including software development, financial services, accounting, and medical services. The industry is expected to generate revenues of \$20 billion–\$25 billion and 1.3 million jobs by 2016. The worldwide trend toward IT–BPO is projected to be sustained, and the Philippines has the following advantages: (i) a huge educated workforce with strong customer-service orientation, (ii)

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<sup>1</sup> A knowledge hub is an institution, entity, or group that operates in a knowledge domain or activity and whose excellence is recognized by those who engage with or are supported by it.

<sup>2</sup> The TA first appeared in the business opportunities section of ADB's website on 4 June 2012.

<sup>3</sup> Other sectors are agribusiness, creative industries, infrastructure, manufacturing, and mining. After electronics and remittances from overseas workers, IT–BPO and tourism fill out the top four sources of foreign exchange. See Joint Foreign Chambers of Commerce in the Philippines. 2010. *Arangkada Philippines 2010: A Business Perspective*. <http://www.investphilippines.info/arangkada/home.php>; See also C. Habito. 2010. *An Agenda for High and Inclusive Growth in the Philippines*. Manila: Asian Development Bank.

<sup>4</sup> IT–BPO refers to the whole outsourcing industry in the Philippines. It includes IT and engineering services outsourcing. IT outsourcing consists of software development, applications development and management, IT infrastructure management, and technical support. Engineering services outsourcing focuses on engineering design for manufacturing, industry, or construction; architectural design; construction management; and building management. BPO refers to customer service (voice and non-voice), finance and accounting, human resources, accounting, transcription, legal processes, health care information management, other knowledge process outsourcing, and other services not under IT or engineering services outsourcing. Animation and game development overlap these classifications and include elements of creative process outsourcing. See the first reference in footnote 3.

<sup>5</sup> Government of the Philippines, Commission on Information and Communications Technology. 2010. *The Philippine Digital Strategy—Transformation 2.0: Digitally Empowered Nation*. Manila.

nearly half a million university and college graduates every year, (iii) highly reliable and low-cost telecommunications infrastructure, (iv) diverse and inexpensive site locations, (v) strong national government support, and (vi) highly competitive operating costs. However, the IT–BPO market is very dynamic, even volatile. In addition, education and training systems in the Philippines are inadequately robust to support high economic growth, requiring substantial reform, innovative solutions, and additional resources.<sup>6</sup> In the IT–BPO industry, the supply of talent to support economic growth drivers continues to be a quantitative and qualitative challenge. The growing IT–BPO industry requires a much-improved education system.

4. Despite a steady influx of tertiary graduates, demand for high-quality labor in the IT–BPO sector has outpaced supply.<sup>7</sup> The country's educational institutions are not providing a sufficient number of suitable graduates to meet labor demand from the rapidly growing IT–BPO industry. Stiff competition among outsourcing suppliers and clients for a limited supply of talent has brought high attrition rates and, consequently, increased spending on recruitment and training. IT–BPO companies provide education and training to their prospective employees, which increases overhead costs. In addition, there are not enough midlevel managers or senior executives in the industry to lead the large pools of young employees. Another challenge facing the IT–BPO sector is weak university–industry linkage. HEI programs are not directly related or complementary to outsourcing. Many college graduates lack proficiency in the English, math, science, and technology skills that the industry needs. Low IT literacy and poor access to computers for the larger segment of the population also hinder the development of suitable talent for IT–BPO.

5. The Business Processing Association of the Philippines (BPAP) and government agencies responsible for education are undertaking initiatives to address the talent supply gap in the IT–BPO sector.<sup>8</sup> BPAP has 13 talent-management programs at various stages of deployment in collaboration with the government, including the Service Management Program (SMP), which was approved by the Commission on Higher Education (CHED) for implementation in school year 2012/13. The SMP is a 21-unit minor degree course that can be taken by university or high school students intending to go into IT–BPO and was designed by industry practitioners to provide students with the required skills set. After completing the SMP, students can proceed with specialized education in service management to augment their major fields such as business, IT, engineering, or other topics. The SMP is being piloted in selected HEIs beginning in school year 2012/13.

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<sup>6</sup> A recent study identifies the following challenges to higher education in the Philippines: (i) inefficient and ineffective public spending on higher education; (ii) the proliferation of low-quality HEIs, many of which are state and local universities and colleges; (iii) inequitably distributed higher education subsidies; and (iv) the lack of efficient mechanisms to allow financially constrained families to benefit from high returns from tertiary education. Addressing these challenges will require policy reforms to (i) rationalize the structure of public higher education service delivery; (ii) improve the functioning of higher education markets and public good benefits; (iii) improve higher education finance, resource mobilization, and cost effectiveness; (iv) improve equity of access to quality HEIs; and (v) raise the quality of HEIs. See Philippine Institute for Development Studies. 2012. *Economic Policy Monitor: Education for Development*. Makati.

<sup>7</sup> Colleges and universities in the Philippines are generically called higher education institutions, or HEIs, by the Commission on Higher Education, which controls and supervises them. HEIs are generally classified as public or private. Colleges are tertiary institutions that typically offer one or few specialized courses such as in the sciences or liberal arts, or specific professional courses. Universities must operate at least eight degree programs. As of 4 August 2011, there are 2,247 HEIs in the country, of which 643 were public and 1,604 were private. <http://www.ched.gov.ph/chedwww/index.php/eng/Information>

<sup>8</sup> Founded in 2004, BPAP has more than 300 member firms and plays a pivotal role in sustaining the rapid growth of the IT–BPO industry by working to ensure an enduring supply of high-quality labor, supporting service innovation, providing country visibility, and helping investors set up operations in the Philippines.

6. BPAP continues to promote and implement its Global Competitiveness Assessment Tool (GCAT), which is an industry-developed online test to assess basic competencies identified as required by employers of entry-level employees. CHED and the information and communication technology (ICT) office of the Department of Science and Technology are discussing with BPAP expanding GCAT coverage across the country. The fourth major BPAP talent development program is Advanced English Pre-employment Training (AdePT), which adapted IT-BPO bridging training for deployment in HEIs. BPAP and its partner associations are developing more faculty-development programs, including teacher training and trainers training. BPAP launched its first program with an HEI in Quezon Province to implement AdePT and GCAT.

7. Among BPAP's other programs under development are its emerging services program and its associate program. The emerging services program aims to address the educational and training needs of specialized services such as finance and accounting, health care, IT, engineering services, and creative services. The associate program aims to help high school graduates become employable with 6–12 months of training. A service technology management program is being developed that can be offered by universities for either a postgraduate certificate or a master's degree for professionals with experience in other industries who want to take up IT-BPO as a career shift, also equipping potential executives and managers with industry-relevant information, education, and experiences.

8. The TA is consistent with the Philippine Development Plan, 2011–2016, which identifies IT-BPO as among the top-10 priority development sectors with the highest potential in terms of economic growth and job creation. As the local IT-BPO industry is projected to expand its market share in global BPO operations, the country's education systems need to be strengthened to ensure that appropriate skills are sustainably developed. The government's commitment to restructuring pre-university education is a significant enabler that provides a unique opportunity to substantially reform higher education systems and programs. In this context, the introduction of innovative and creative higher education programs relevant to the country's competitive advantages in sectors such as IT-BPO is timely and complementary. The TA fully aligns with the government's knowledge strategy and program<sup>9</sup> and ADB's knowledge management plan.<sup>10</sup>

### III. THE TECHNICAL ASSISTANCE

#### A. Impact and Outcome

9. The impact will be the improved alignment of higher education with the needs of the economy. The outcome will be a replicable and sustainable system of ICT-enabled knowledge hubs for the improved teaching and learning of IT-BPO industry-designed curricula in HEIs.

#### B. Methodology and Key Activities

10. The outputs will be (i) increased access to knowledge resources for IT-BPO industry-designed courses, (ii) enhanced higher education curricula and instruction, and (iii) strengthened partnership between industries and academic institutions.

**11. Access to knowledge resources increased for industry-designed courses on information technology and business process outsourcing.** Drawing on best practices and

<sup>9</sup> ADB. Forthcoming. *Country Operations Business Plan: Philippines, 2013–2015*. Manila (Supplementary Document: Knowledge Strategy and Program 2013–2015).

<sup>10</sup> ADB. Forthcoming. *Asian Development Bank – Becoming a Stronger Knowledge Institution: Knowledge Management Plan*. Manila.

lessons regarding the management and operation of knowledge hubs, the TA will help establish at least three knowledge hubs in selected HEIs, or enhance existing ones, to provide online training to teachers and digitized learning modules and study guides to students. The TA will (i) identify lessons and best practices regarding the promotion of knowledge hubs, (ii) develop model and operational systems for knowledge hubs, (iii) develop criteria for locating knowledge hubs and selecting beneficiaries, and (iv) enhance capacity to manage and maintain knowledge hubs.

**12. Higher education curriculum and instruction enhanced.** The TA will identify and implement measures to align the programs and teaching of participating HEIs with the needs of the IT-BPO industry. It will support and facilitate the (i) further development and integration of BPAP's talent-development programs such as those approved by CHED on service management, AdEPT, the GCAT, and service technology management, as well as other industry-designed courses in the teaching curricula of participating HEIs; (ii) accreditation of industry-designed courses by the governing bodies of participating HEIs and/or CHED, as well as industry associations like BPAP; (iii) development of online learning modules and study guides for the courses; (iv) development of online training programs for teaching the courses; (v) training of teachers and teacher trainers; (vi) development of assessment tools to track progress and assess the learning outcomes of students and teachers; and (vii) adoption by participating HEIs of a standard industry-designed instrument such as the GCAT to test the core competencies of students. The TA will directly benefit at least 900 teachers and 3,000 tertiary-level students, of which at least 50% are females.

**13. Partnerships with industries and academic institutions strengthened.** The TA will support twinning arrangements between international and national HEIs to develop knowledge resources for the knowledge hubs and improve higher education curricula and student learning. Stronger industry-university linkage will likewise be pursued, particularly toward adopting cost-effective industry models to strengthen higher education programs and address skills shortages. Participating HEIs will manage the knowledge hubs and provide long-term institutional support for their continued operation and maintenance. The TA will support the development of a business model that optimizes private sector participation and includes public sector support to sustain the propagation and operation of knowledge hubs after TA implementation.

## **C. Cost and Financing**

**14.** The TA is estimated to cost \$552,500, of which \$500,000 will be financed on a grant basis by the Republic of Korea e-Asia and Knowledge Partnership Fund and administered by ADB. The government will provide counterpart support in terms of remuneration for counterpart staff, office accommodation, utilities, and other in-kind contributions. The cost estimates and financing plan are in Appendix 2.

## **D. Implementation Arrangements**

**15.** The Department of Finance will be the executing agency. It has demonstrated strong ownership of the TA and expressed its commitment to lead and coordinate TA implementation. The department will bring a whole-government approach to the TA and mobilize public sector support to ensure the sustainability of initiatives. A steering committee chaired by the department and composed of CHED, the National Economic and Development Authority, and other government agencies will be established. The steering committee will provide quality assurance and ensure effective coordination among government agencies, development partners, and stakeholders. The TA will be implemented from 16 October 2012 to 15 October 2015 and require 5 person-months of international consulting services and 56 person-months of national

consulting services. As the TA will be designed to flexibly respond to the requests of government and industry, about 2 person-months of international consulting inputs and 12 person-months of national consulting inputs—possibly in the areas of project management, strategy formulation, curriculum and content development, and higher education administration and governance—will be determined during TA implementation. Based on their experience and track record, BPAP, the University of the Philippines (UP) through the UP Open University, and the Asian Institute of Management (AIM) will be engaged using single-source selection in accordance with ADB Guidelines on the Use of Consultants (2010, as amended from time to time).

16. As the umbrella association for the IT–BPO industry in the Philippines, combining more than 300 industry and industry-support members, BPAP plays a pivotal role in promoting the competitive advantages and growth potential of the Philippines in existing and new areas of outsourcing. BPAP supports the industry through offshore marketing, education and training, and the promotion of legislation and public policy. Since its creation in 2004, BPAP has worked closely with the industry, HEIs, and the Philippine government on a number curriculum-and talent-development projects.

17. UP and AIM are leading HEIs in the country, with extensive international and in-country experience in educational administration, curriculum design, knowledge management, and capacity development. UP is the premier university in the country and pioneer in higher education, including the UP Open University's distance and e-learning programs. It has 14 campuses in the country with more than 50,000 students enrolled in 240 undergraduate and 402 graduate programs. The UP Open University is the only distance education institution in Southeast Asia that offers most of its courses online. It has a network of 10 learning centers, a virtual learning center, and 19 testing centers in the country and abroad. UP has robust institutional linkages with industry players, and one of its campuses is home to several IT–BPO companies. It has partnered before with ADB in knowledge management initiatives.

18. AIM is one of Asia's leading business and management schools, with an alumni network in more than 40 countries, strong professional ties with business, and experience in operating and managing knowledge hubs. It hosts the ADB-assisted knowledge hub for poverty reduction and the World Bank-supported Global Distance Learning Center. AIM has conducted business analyses for key industries. Its key publications include national and city competitiveness reports. The outline terms of reference for consultants are in Appendix 3.

19. BPAP will be responsible for managing the TA while ensuring closer university–industry linkage and the sustainability of TA benefits. UP will be responsible for designing and deploying e-learning products for industry-designed courses in HEIs. AIM will lead TA knowledge-management components. All procurement will be in accordance with ADB Procurement Guidelines (2010, as amended from time to time). All procured assets will be transferred to HEIs after TA completion. Disbursements under the TA will accord with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time).

#### **IV. THE PRESIDENT'S DECISION**

20. The President, acting under the authority delegated by the Board, has approved ADB administering technical assistance not exceeding the equivalent of \$500,000 to the Government of the Philippines to be financed on a grant basis by the Republic of Korea e-Asia and Knowledge Partnership Fund for Strengthening Knowledge-Based Economic and Social Development, and hereby reports this action to the Board.

### DESIGN AND MONITORING FRAMEWORK

<b>Design Summary</b>	<b>Performance Targets and Indicators with Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Assumptions and Risks</b>
<b>Impact</b>  Improved alignment of higher education programs with the needs of the economy	Philippine education system scoring at least 4.50 on the Institute for Management Development World Competitiveness Online Database by 2018, up from 4.03 in 2009	Institute for Management Development World Competitiveness Online Database	<b>Assumption</b>  Global economic stability  <b>Risk</b>  Economic shocks
<b>Outcome</b>  A replicable and sustainable system of ICT-enabled knowledge hubs developed for the improved teaching and learning of IT–BPO industry-designed curricula in HEIs	IT–BPO industry-designed courses adopted in at least 3 HEIs by Q3 2015  Adoption of GCAT in selected HEIs by Q3 2015	Annual reports of the Commission on Higher Education  Annual reports of the Business Process Association of the Philippines	<b>Assumptions</b>  Government support  Cooperation of HEIs  <b>Risk</b>  Teacher attrition
<b>Outputs</b>  1. Access to knowledge resources for teaching and learning IT–BPO industry-designed courses increased  2. Higher education curricula and instruction enhanced	Business model for operating and sustaining the knowledge hubs developed by Q1 2013  Digitized teacher training materials and study modules incorporated in the knowledge hubs by Q3 2014  900 faculty members from participating HEIs, of which at least 50% are women, completing online teacher training programs on IT–BPO industry-designed courses by Q2 2015  3,000 students, of which at least 50% are females, complete online learning modules and study guides on IT–BPO industry-	Annual reports of partner industries  Annual reports of participating HEIs  Annual reports of participating HEIs  Annual reports of participating HEIs	<b>Assumptions</b>  HEIs and partner industries providing continued institutional support  Faculty members and students motivated to improve their knowledge and skills  <b>Risk</b>  Leadership changes in HEIs and partner industries



<b>Design Summary</b>	<b>Performance Targets and Indicators with Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Assumptions and Risks</b>
3. Partnerships between industry and academic institutions strengthened	<p>designed courses by Q2 2015</p> <p>At least 3 partnership agreements involving HEIs and industries signed by Q4 2012</p> <p>At least 2 twinning arrangements between foreign and domestic HEIs established by Q2 2014</p>	<p>TA progress report</p> <p>TA progress report</p>	

<b>Activities with Milestones</b>	<b>Inputs</b>														
1.1. Drawing from best practice and lessons regarding the management and operation of knowledge hubs, design a model and operational systems for knowledge hubs by Q4 2012.	<b>Republic of Korea e-Asia and Knowledge Partnership Fund : \$500,000</b>														
1.2. Develop criteria for locating knowledge hubs and selecting beneficiaries by Q4 2012.	<table> <tr> <th><b>Item</b></th><th><b>Amount (\$'000)</b></th></tr> <tr> <td>Consultants</td><td>355.2</td></tr> <tr> <td>Equipment</td><td>32.0</td></tr> <tr> <td>Training, seminars, and conferences</td><td>55.8</td></tr> <tr> <td>Evaluation surveys and studies</td><td>15.0</td></tr> <tr> <td>Miscellaneous administration and support costs</td><td>13.0</td></tr> <tr> <td>Contingencies</td><td>29.0</td></tr> </table>	<b>Item</b>	<b>Amount (\$'000)</b>	Consultants	355.2	Equipment	32.0	Training, seminars, and conferences	55.8	Evaluation surveys and studies	15.0	Miscellaneous administration and support costs	13.0	Contingencies	29.0
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Evaluation surveys and studies	15.0														
Miscellaneous administration and support costs	13.0														
Contingencies	29.0														
1.3. Set up three knowledge hubs by Q4 2013.															
1.4. Develop capacity for managing and maintaining knowledge hubs from Q1 2013 to Q4 2013.															
2.1. Develop and enhance IT-BPO industry-designed courses by Q1 2013.															
2.2. Implement a system for accrediting courses by Q4 2013.															
2.3. Develop online learning modules and study guides by Q2 2014.															
2.4. Develop online teacher training programs and guides by Q2 2014.															
3.1. Identify partner industries and HEIs by Q3 2012.															
3.2. Discuss and agree on partners' responsibilities by Q3 2012.															
3.3. Develop a partnership framework by Q3 2012.															
3.4. Develop a business model to sustain the propagation and operation of knowledge hubs by Q4 2014.	<p><b>Government</b></p> <p>The government will provide counterpart support in the form of remuneration of counterpart staff, office accommodation, utilities, and other in-kind contributions.</p>														

BPO = business process outsourcing, HEIs = higher education institutions, IT = information technology, ICT = information and communication technology, GCAT = Global Competitiveness Assessment Tool, Q = quarter, TA = technical assistance.

Source: Asian Development Bank.

**COST ESTIMATES AND FINANCING PLAN**  
(\$'000)

<b>Item</b>	<b>Total Cost</b>
Republic of Korea e-Asia and Knowledge Partnership Fund <sup>a</sup>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	38.5
ii. National consultants	281.3
b. International and local travel	21.0
c. Reports and communications	14.4
2. Equipment	32.0
3. Training, seminars, and conferences	55.8
4. Evaluation surveys and studies	15.0
6. Miscellaneous administration and support costs	13.0
7. Contingencies	29.0
<b>Total</b>	<b>500.0</b>

Note: The technical assistance (TA) is estimated to cost \$552,500, of which contributions from the Republic of Korea e-Asia and Knowledge Partnership Fund are presented in the table above. The government will provide counterpart support in the form of remuneration for counterpart staff, office accommodation, utilities, and other in-kind contributions. The value of government contribution is estimated to account for 9.5% of the total TA cost.

<sup>a</sup> Administered by the Asian Development Bank.

Source: Asian Development Bank estimates.

## **OUTLINE TERMS OF REFERENCE FOR CONSULTANTS**

### **A. Background**

1. The technical assistance (TA) will support strategic investments establishing knowledge hubs to address skills shortages in high-growth economic sectors such the information technology (IT) and business process outsourcing (BPO). The knowledge hubs will provide facilities allowing higher education institutions (HEIs) to access e-learning products for teaching and learning IT–BPO industry-designed courses. The TA will be implemented over 3 years and require 5 person-months of international consulting services and 56 person-months of national consulting services. As the TA will be designed to flexibly respond to the requests of government and industry, about 2 person-months of international consulting inputs and 12 person-months of national consulting inputs—possibly in the areas of project management, strategy formulation, curriculum and content development, and higher education administration and governance—will be determined during TA implementation.

2. Based on their experience and track record, the Business Processing Association of the Philippines (BPAP), University of the Philippines (UP) through the UP Open University (UPOU), and Asian Institute of Management (AIM) will be engaged using single-source selection in accordance with Asian Development Bank (ADB) Guidelines on the Use of Consultants (2010, as amended from time to time). BPAP will be responsible for managing and coordinating TA inputs and outputs, while ensuring closer university–industry linkage and the sustainability of TA benefits. It will establish a project management team that will serve as the operations unit for TA implementation. UP will take responsibility for the design and deployment of e-learning products for teaching and learning using industry-designed courses in HEIs. UP will also manage the teacher development components of the TA. AIM will lead the knowledge-management aspects of the TA, particularly the establishment and expansion of knowledge hubs.

### **B. Business Processing Association of the Philippines**

#### **1. Lead Expert on Industry-Designed Education** (international, 3 person-months, intermittent)

3. The expert will be experienced in managing industry-designed education, particularly in the field of IT–BPO. Working closely with other TA consultants, the expert will perform the following indicative tasks:

- (i) Oversee and coordinate all inputs and outputs under the TA in close consultation with industry players, government agencies, HEIs, and ADB.
- (ii) Ensure that TA objectives and targets are achieved, all policies are complied with, and appropriate standards and guidelines for managing and coordinating the TA are in place.
- (iii) Prepare an overall strategy and road map for enhancing curricula and instruction in HEIs to meet the labor supply needs of the IT–BPO industry.
- (iv) Design incentives and management systems to facilitate the continuous improvement of curricula and instruction in HEIs.
- (v) Review higher education systems and practices and identify how to address constraints on improving the quality of services and achieving closer university–industry linkage.
- (vi) Take responsibility for the satisfactory and timely submission of required reports under the TA.

## **2. Industry Education Specialist** (national, 12 person-months, intermittent)

4. The specialist will be experienced in industry-designed education. The indicative tasks of the specialist are as follows:

- (i) Assist the lead expert in undertaking the tasks listed above.
- (ii) Coordinate with the lead expert to identify resource requirements for strengthening skills development programs in HEIs.
- (iii) Assess how HEIs' capacity must be developed to effectively supply the talent the IT-BPO industry needs.
- (iv) Identify and recommend appropriate twinning arrangements or partnership agreements between foreign and local institutions to enhance HEI curricula and instruction in the country.
- (v) Prepare draft twinning arrangements and/or partnership agreements for institutions to consider.

## **C. University of the Philippines Open University**

### **1. Education System Integration Expert** (national, 4 person-months, intermittent)

5. The expert will be experienced in managing education projects and integrating communication network systems including hardware, software, and interfaces. Working closely with the expert on industry-designed education and other TA consultants, the expert will perform the following indicative tasks:

- (i) Determine the project schedule from evaluation to procurement, installation, test run, and handover.
- (ii) Ensure that the e-learning platforms for teaching and learning industry-designed courses can handle the present and future content load of the e-learning courses.
- (iii) Identify staff requirements.
- (iv) Propose annual budget requirements, including capital and operating expenditures, to maintain the e-learning system, which will be made part of the envisaged knowledge hubs.
- (v) Oversee the system installation, test run, and handover.

### **2. E-Learning Management Expert** (national, 6 person-months, intermittent)

6. The expert will be experienced in planning and implementing e-learning systems for HEIs. Working closely with the education system integration expert and other consultants, the expert will perform the following indicative tasks:

- (i) Review the digital content-creating tools currently available to identify the most appropriate for each e-learning objective.
- (ii) Develop and deploy the digital content for the industry-based courses and training modules.
- (iii) Develop and install the e-learning system architecture.
- (iv) Design and implement the training programs for system operators and related personnel.

### 3. **Teacher Training Expert** (national, 3 person-months, intermittent)

7. The expert will be experienced in teacher training for higher education. The expert will provide leadership and technical guidance toward designing and implementing programs to train trainers and teachers. Working closely with the training specialists and other TA consultants, the expert will perform the following indicative tasks:

- (i) Toward training trainers, (a) design a training program for teacher trainers on industry-designed curricula and courses; (b) prepare all required training course materials, including assessment tools for monitoring progress and the outcome of training; (c) deliver the teacher trainer program; (d) monitor and evaluate the teacher trainer program during the initial runs and enhance as necessary the design, methodology, materials, and assessment tool for the training program for teacher trainers; and (e) establish appropriate management arrangements to sustain the delivery of high-quality teacher trainer programs, including accreditation systems.
- (ii) Toward training teachers, (a) develop the framework and guidelines for training teachers of industry-designed curricula and courses, (b) provide technical guidance and quality assurance for the design and management of training programs for teachers of industry-designed curricula and courses, including the accreditation of teachers who successfully complete the training programs.

### 4. **Training Specialists** (national, 12 person-months, intermittent)

8. The specialists will be experienced in teacher training for higher education, particularly using distance and/or online modalities. Working closely with the teacher training expert, the specialists will perform the following indicative tasks:

- (i) Design training modules for trainers and teachers of industry-designed curricula and courses.
- (ii) Prepare all required training materials, including assessment tools for monitoring progress and the outcome of training.
- (iii) Deliver training programs for trainers and teachers.
- (iv) Provide technical inputs and quality assurance to the digitization of the training modules and materials.

## D. **Asian Institute of Management**

9. **Knowledge management expert** (national, 7 person-months, intermittent). The expert will be experienced in analyzing, creating, and disseminating knowledge relevant to the development needs and priorities of government and the private sector, particularly in strengthening human capital for high-growth industries. Working closely with the lead expert on industry-designed education and other TA consultants, the expert will perform the following indicative tasks:

- (i) Prepare strategic policy notes for enhancing industry–university linkage to support key industries such as IT–BPO.

- (ii) Develop the business model, institutional framework, management arrangements, and agreements for establishing, operating, expanding, and sustaining knowledge hubs.
- (iii) Identify sites of knowledge hubs based on a sound and transparent set of criteria.
- (iv) Incorporate e-learning products developed under the TA into the knowledge hubs.
- (v) Identify resource requirements for establishing and operating knowledge hubs (e.g., staffing, finances, program applications, furniture, hardware, and peripherals).
- (vi) Provide technical guidance and the TA resources required for setting up and managing knowledge hubs.