Report Number: ICRR0022604

1. Project Data

Project ID P126974	**Project Name** African Centers of Excellence
Country Western Africa	**Practice Area(Lead)** Education

L/C/TF Number(s)	**Closing Date (Original)**	**Total Project Cost (USD)**
IDA-54120,IDA-54150,IDA-54190,IDA-54200,IDA-54210,IDA-54220,IDA-54230,IDA-54240,IDA-57330,IDA-H9300,IDA-H9320	31-Dec-2018	143,402,620.68

Bank Approval Date	**Closing Date (Actual)**
15-Apr-2014	30-Sep-2020

	IBRD/IDA (USD)	**Grants (USD)**
Original Commitment	150,000,000.00	0.00
Revised Commitment	158,150,557.91	0.00
Actual	143,402,620.68	0.00

Prepared by	**Reviewed by**	**ICR Review Coordinator**	**Group**
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2. Project Objectives and Components

a. Objectives

According to the Financing Agreements (Schedule 1) for the regional facilitation agency and each recipient country, and the Project Appraisal Document (PAD, page 8), the project objectives were as follows:

To promote regional specialization among participating universities in areas that address regional challenges and strengthen the capacities of these universities to deliver quality training and applied research.

b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Will a split evaluation be undertaken?

No

d. Components

Note: The project costs reported below reflect the IDA portions and Additional Financing (AF) only.

Component 1: Strengthening Africa Centers of Excellence (Appraisal: US$ 140.8 million; Appraisal + AF: US$ 155.8 million; Actual: US$ 137.1 million): This component aimed to support 19 Africa Centers of Excellence (ACEs) hosted by higher education institutes, in the key sectors of agriculture, health and STEM. The ACEs were selected through a competitive proposal process and awarded grants of up to US$ 8 million. The following countries participated in the project: Benin, Burkina Faso, Cameroon, Cote d'Ivoire, Ghana, Nigeria, Senegal and Togo. Examples of ACEs specializations included: Applied Mathematics, Environment and Water Engineering, Information Technology, Crop Science and Plant Breeders, Cell Biology of Infectious Diseases, Oil Chemical Engineering, Neglected Tropical Diseases, and Phytomedicine Science.

Component 2: Enhancing Regional Capacity; Evaluation and Collaboration (Appraisal: US$ 9.2 million; Appraisal + AF: US$ 9.2 million; Actual: US$ 8.9 million): This component aimed to support coordination at the regional level. Activities included: a regional IDA grant to the Association of African Universities to support capacity building and knowledge sharing among ACEs; monitoring and evaluation; project implementation support to the National Universities Commission in Nigeria (due to the high number of ACEs awarded funding in Nigeria); and the purchase of ACE services by faculty and students of The Gambia, a small country without existing capacity to host its own ACE.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project cost

- At appraisal, the total project cost was estimated at US$ 305.8 million. The amount was later revised to US$ 316.3 million, due to additional financing.
- The actual amount at closing was US$ 286.8 million, primarily due to an exchange rate loss of US$ 13.9 million and a partial cancellation.
- At project restructurings, funds were reallocated among ACEs within two of the recipient countries, due to variable performance among the ACEs.

Financing

- The project was financed by several IDA grants and credits to multiple recipient governments, totaling US$ 165.0 million. The amount was later revised to US$ 158.15 million. The actual amount disbursed was US$ 143.4 million.
- Additional financing in the amount of US$ 15.0 million was approved in September 2015.
- SDR 1.4 million was cancelled from the Cameroon grant due to low fund utilization.

Borrower contribution

- The participating governments were expected to contribute US$ 140.8 million, by way of Eligible Expenditure Programs. The actual amount contributed was US$ 143.4. million.

Dates

- *September 2015*: Additional Financing of US$ 15.0 million was approved to establish ACEs in Cote d'Ivoire. At the time of project appraisal, Cote d'Ivoire was not able to participate in the project due to lack of IDA fund availability and the country's recent emergence from a prolonged crisis.
- *September 2018*: Project funds were reallocated among some of the ACEs due to variable performance. In addition, the project closing date was extended from December 2018 to March 2020, due to initial delays in project effectiveness and other operational challenges.
- *April 2019*: Unallocated funds from Additional Financing were allocated across the three ACEs in Cote d'Ivoire. In addition, the project closing date for the Additional Financing was extended from December 2019 to September 2020.

3. Relevance of Objectives

Rationale

The West Africa region has been experiencing economic growth due to increasing macroeconomic stability, economic reforms, and a rapid increase in global demand for natural resource-based commodities. However, significant development challenges remain, including an undiversified production structure, lack of new competitive sectors, poor health status of the population, lack of food security, and low agricultural productivity. The West African countries' capacity to effectively respond to these challenges is weak due to a shortage of specialized skills, particularly in key growth sectors of extractive industries, energy, water, infrastructure, health, and information and communication technologies. The region's higher education institutions have inadequate capacity to train graduates at higher competencies and specialization, including in higher numbers. Specialized positions are largely filled by expatriates, while local talent migrates out of the region to pursue better quality education and professional opportunities. Moreover, current university programs do not offer courses and/or degrees that are relevant to market demand nor development needs. This project responds to these challenges by aiming to increase the quantity and quality of university graduates through investments in facilities, curricula, and human resources in key priority sectors.

The particular focus on regional specialization is also highly relevant given the limited financial and human resources within each individual country to develop and sustain higher education programs. The regional approach, with the coordination of investments, will enable the concentration of qualified faculty into a

critical mass to ensure impact, support sustainable institutions and programs, and encourage the flow of knowledge and students across countries.

The project objectives are relevant to the Bank's Regional Integration and Cooperation Assistance Strategy (FY18-23), which supports regional skills development initiatives as a sub-objective (including an "increase in trained graduates" as an outcome and indicator).

Rating
High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1
Objective
To promote regional specialization among participating universities in areas that address regional challenges

Rationale
The theory of change for this objective was overall sound. A key development challenge was identified as a lack of homegrown specialized expertise, including low productivity and growth in priority sectors. Activities to increase the availability and quality of learning resources and facilities, updating and creation of new curricula, and faculty training were likely to lead to the intended outcome to increase the number of specialized academic programs in priority sectors relevant to market and industry demands. The priority sectors were identified as agricultural sciences, health sciences, and science, technology, engineering and math (STEM). As part of project preparation, 22 Africa Centers of Excellence (ACEs) in 21 host universities in eight countries were selected through an open, merit-based proposal process, with the aim to ensure reasonably equitable distribution across countries, language groups, and academic disciplines. The selected ACEs entered into Performance and Funding Contracts with their respective national governments, with funds disbursed according to the achievement of Disbursement-Linked Indicators.

Outputs

- Provision of grants (ranging from US$ 4.0 million to US$ 8.0 million) to 22 Africa Centers of Excellence (ACEs). The grants funded activities focusing on five elements: enhancing capacity to deliver regional high-quality training; enhancing capacity to deliver applied research; building industry/sector partnerships; building academic partnerships; and enhancing governance. Activities funded through the grants included: curricula updates; accreditation processes; delivery of short-term training courses for professionals; delivery of Masters and PhD degrees; faculty training; internships; learning equipment; facilities upgrading; industry and academic partnerships; and research.
- Revision/ creation of 231 curricula for specialized courses offered by ACEs (target: 60). According to the ICR (page 15), several programs had never been offered in West Africa before which had required

students to leave the region. Examples of new offerings are a post-graduate program in biotechnology with a focus on Neglected Tropical Diseases and a post-graduate program in Crop Seed and Science Technology.

Outcomes

- The number of national students enrolled in new specialized short-term courses, Masters or PhD programs in priority sectors (in ACEs within their own country) increased from 1,580 students at project start to 21,341 students, surpassing the target of 15,600 students. This included 12,000 Master students and 2,300 PhD students.
- The number of regional students enrolled in the new specialized programs (in ACEs outside their own country) increased from 987 students at project start to 9,480 students, surpassing the target of 8,900 students.
- The number of national faculty trained by ACEs increased from 73 faculty at project start to 2,926 faculty, surpassing the target of 565 faculty. Of these, 741 were female. The number of regional faculty trained by ACEs increased from 27 faculty at project start to 657 faculty, surpassing the target of 335. Of these, 185 were female faculty.
- 25% of all project beneficiaries were female. Several strategies were employed to encourage female participation, including providing flexibility to female students for reasons of pregnancy or childbirth, sending a caravan to girls' secondary schools to provide information to girls and women on available training courses, and offering free refresher courses and laptops to female students who register for the engineering level courses.
- For the academic year 2017/18, ACEs in Ghana, Nigeria, and Senegal represented more than 20 percent of postgraduate enrollment in the key fields of studies, indicating the proportion of the new qualified students attributable to the project.
- 124 university faculty members from The Gambia participated in training in different ACEs across the region, through project support which enabled them to purchase education services from ACEs. For small countries like The Gambia, the project demonstrated that they could still benefit even without a ACE within their own country. In the follow-up Bank operation (P164546), The Gambia will establish an Emerging Center of Excellence.

Notably, the regional ACE model introduced by the project has since been expanded to cover all of Sub-Saharan Africa through follow-on projects (ACE Impact I and 2). According to the ICR (page 22), the model "has been recognized for its success in creating high-quality higher education programs that are contributing to developing the competencies of the region's workforce necessary to develop, adapt, and apply solutions to key sectoral challenges in Africa, such as supporting industries in producing higher value-added products and services."

There is evidence that the quantity of high-level, trained graduates has increased in new programs or higher education expansion areas. But there were shortcomings in addressing regional needs and challenges, namely in regional student outreach and in university-industry linkages (2018 Restructuring Paper, Report No. RES31639, p. 8). Hence, the achievement of the objective is considered to be almost fully achieved.

Rating
Substantial

OBJECTIVE 2
Objective
To strengthen the capacities of these universities to deliver quality training and applied research

Rationale
The theory of change for this objective was clear. Activities to meet international benchmarks for quality education, delivery of training courses, and development of industry and academic partnerships were all likely to contribute to the intended outcome to strengthen capacity of universities to deliver quality and relevant training and research. The ICR (page 28) noted that "the selection of beneficiary institutions on a competitive basis and the reliance on merit for fund allocation set an important precedent for the region and for all the countries that participated" and that the results-based approach helped to incentivize performance (although the latter was an unfamiliar funding instrument and therefore led to some initial delays).

Outputs

- Provision of grants (ranging from US$ 4.0 million to US$ 8.0 million) to 22 Africa Centers of Excellences . The grants funded activities focusing on five elements: enhancing capacity to deliver regional high-quality training; enhancing capacity to deliver applied research; building industry/sector partnerships; building academic partnerships; and enhancing governance. Activities funded through the grants included: curricula updates; accreditation processes; delivery of short-term training courses for professionals; delivery of Masters and PhD degrees; faculty training; internships; learning equipment; facilities upgrading; industry and academic partnerships; and research.
- Regional monitoring and evaluation activities, including monitoring of ACE performance, graduate tracer studies and technical audits.
- Fiduciary training for project implementing entities.

Outcomes

- The number of faculty trained by ACEs increased from 100 faculty at project start to 3,583 faculty, surpassing the target of 900. The content of training included issues related to pedagogy, curriculum development, and supervision. According to the ICR (page 17), a survey conducted for the ICR indicated that 94% of faculty agreed that their teaching improved as a result of the project interventions.
- The number of accredited programs in priority sectors increased from three programs at project start to 61 programs, surpassing the target of 15. Elements of accreditation included caliber of scientific leadership and research staff, research ethics, pedagogy quality, relationships between faculty and staff, and proper documentation. The ICR (page 17) also noted that the project had wider impact in Nigeria, as the emphasis on meeting widely accepted benchmarks of quality led to the country pursuing accreditation for all of its postgraduate programs, not just project-supported programs.
- The number of students and faculty with at least one-month internships in a company or local institution relevant to their field increased from 1,037 at project start to 6,257, achieving the target of

5,900. According to the ICR (page 18), the graduate tracer survey indicated that 70% of ACE respondents participated in an internship or some form of industry collaboration. Reported benefits included better understanding how scientific work translated in the field, learning about rural communities, creating impetus for completing thesis, and developing close mentorships and networks.

- The number of partnerships between ACEs and partner institutions increased from 48 partnerships at project start to 447 partnerships, surpassing the target of 170. The nature of the partnerships included delivery of content, collaboration on curriculum review, assessing quality of laboratories, and supervision of graduates. The ICR (page 17) noted that partner institutions were heavily involved in the development and delivery of academic programs, and helped overcome limitations in the time and expertise of faculty members of ACEs.
- The number of internationally-recognized research publications by the ACEs increased from 1,098 publications at project start to 2,559 publications, surpassing the target of 1,331. 53% of publications involved international collaboration. Evidence of the quality of the research publications included the finding that 19% of ACE publications were in the top ten percent of cited journals, compared to 13% average for Africans and 14% for Asians (although below the 29% average for the Americas and 24% for Europe). The ICR (page 19) noted faculty qualitative feedback that improved technology, equipment and infrastructure funded by the project were primary causes for improved quality, as well as strengthened networks, training opportunities, grant funding, and stronger/larger cohorts of students.
- The amount of external revenue generated by ACEs increased from US$ 976,877 at project start to US$ 51,655,311, surpassing the target of US$ 8,000,000, with all ACEs achieving individual targets. According to the ICR (page 18), revenue generation has been key for sustainability of ACEs by ensuring funds for investing in training, equipment, facilities, partnerships, and outreach events. The ACEs with the highest revenue generated indicated that success factors were having autonomy to establish partnerships, effective communication systems such as well-developed websites, and dedicated focal persons responsible for partnerships.

In addition to the outcomes reported above, the following examples provide anecdotal evidence of the contribution of ACE graduates (either by teaching new cohorts of students at home universities or by working in public agencies or private sector companies in the priority areas):

- Gene sequencing work and virus rapid testing kits at Africa Center of Excellence for Genomics of Infectious Diseases (ACEGID) in Nigeria.
- COVID-19 testing at Africa Center of Excellence on Neglected Tropical Diseases and Forensic Biotechnology (ACENTDFB) in Nigeria.
- Maternal health care at the Center of Excellence in Maternal Health in Senegal.
- Water filtering techniques at Institut International d'Ingénierie de l'Eau et de l'Environnement (2iE) in Burkina Faso.
- 90 improved crop varieties at West Africa Center of Excellence for Crop Improvement (WACCI) in Ghana.

Achievement of this objective is rated High due to evidence of increased capacity, both in quantity and quality, to deliver quality training, including surpassing of targets, and due to the amount of research publications and citations in internationally recognized journals, where citations are commonly used as a surrogate measure of quality.

Rating
High

OVERALL EFFICACY

Rationale
Overall efficacy is rated Substantial due to substantial achievement of the first objective to promote regional specialization to address regional challenges and high achievement of the second objective to strengthen capacity of participating universities to deliver quality training and applied research.

Overall Efficacy Rating

Substantial

5. Efficiency

At project appraisal (PAD, Annex 6), a cost-benefit analysis was conducted for Component 1 (which directly financed activities at each ACE). Benefits were estimated based on higher earnings (resulting from higher education) and also external revenue generated by each ACE; however, the analysis did not include social returns to education such as improved quality of life, mobility, etc. Costs are total project cost for component 1. Expected internal rate of return (IRR) varied by country, ranging from 3% in Burkina-Faso, 30% in Cameroon, 28% in Ghana, and 15% in Nigeria.

At project closing (see ICR, Annex 4), the updated cost-benefit analysis estimated that for every US$1 invested there is a return of US$2.03, therefore the estimated IRR was 3% in Burkina-Faso, 32% in Cameroon, and 18% in Nigeria (none reported for Ghana), all similar to those estimated at appraisal. The present discounted value of benefits for the overall project was estimated at US$158.2 million and the corresponding NPV of project benefits is US$49.5 million. The IRR associated with this NPV is 32%. These figures indicate substantial efficiency of investments. The analysis did not calculate the reduced need/cost of traveling abroad to receive education, which was a key rationale for the project and assumed to be an area of improved efficiency in training qualified workers. The cost for supporting regional mobility of students was noted as a potential challenge for ACEs.

The ICR also provided cost comparisons with two PhD programs at public universities - PASET-RSIF and the RUFORUM programs. The annual PhD unit cost of the PASET – RSIF programs is $28,558. The RUFORUM annual PhD unit cost is $21,666.67. On average, the ACE PhD unit cost is $7,668.20 ($6,339.12 for national students and $8,997.28 for regional).

The project documents (Project Paper, September 2018) noted that there were some ACEs that experienced "significant implementation bottlenecks... with cumbersome procedures and challenges of daily implementation"

and that "a few centers were consistently behind on implementation despite [targeted efforts]. If the project were to be extended by one year … it is still not expected that these centers will be able to fully utilize their funds." These implementation challenges at these ACEs led to fund reallocations. The project funds were almost fully disbursed, albeit after the abovementioned reallocations and two project extensions.

Efficiency Rating

Substantial

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal		0	0 ☐ Not Applicable
ICR Estimate	✓	32.00	96.00 ☐ Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

Relevance of objectives is rated High due to high relevance to country conditions and Bank regional strategy. Efficacy is rated Substantial, as the objectives were almost fully met. Efficiency is rated Substantial due to favorable internal rates of return and cost comparisons with other higher education programs, but with shortcomings in the efficiency of implementation.

a. Outcome Rating

Satisfactory

7. Risk to Development Outcome

Financial sustainability of the ACEs is likely to continue due to the strengthened ability of ACEs to generate external revenue that complements government financial support (which comprises only a small fraction of total public expenditure on higher education), although not all ACEs were generating the same levels of external revenue. Maintenance of acquired equipment and infrastructure is expected to require only limited recurrent financing. The ICR (page 37) identified one area of risk, namely the ability to support regional mobility of students, noting that it is often expensive for regional students to pursue higher education outside their country without support in the form of scholarships or other sources of financing. To meet project targets, ACEs did offer financial support to regional students but it is unclear whether that will be continued.

8. Assessment of Bank Performance

a. Quality-at-Entry

The project approach was strategic and relevant, particularly notable in its innovative regional approach to strengthen higher education. As it was deemed costly and difficult for all countries in the region to increase capacity of higher education institutes in a range of specialty areas at the same time, the regional approach was designed, assuming mobility across countries so all countries and participants could benefit from access to quality higher education in key sectors. The theory of change and results frameworks were overall sound. The project preparation period included a rigorous selection process to identify the 22 ACEs in 21 host institutions across eight countries. The ICR (page 35) noted that the "high credibility of the process and results" helped to get the project off to a smooth start. The use of disbursement-linked indicators, which were common across all ACEs, provided appropriate incentives, thus ensuring focus on the key results. The regional-level implementing agency was to be a key source of technical and implementation support (including fiduciary), given that the ACEs were being developed from the ground up. Monitoring and data collection arrangements were clearly established, including with a verification mechanism to ensure quality of data, and evaluative studies were planned to assess project impact both during and after the project period.

Quality-at-Entry Rating

Satisfactory

b. Quality of supervision

The results-based financing approach helped maintain focus on outcomes, although lack of experience with the approach by most of the participant countries led to delays. The ICR (page 35) noted that the Bank team, through continuity in regional task team leadership alongside country-level co-task team leaders, played an important role in filling knowledge gaps and providing detailed hands-on support to individual countries. There were frequent site visits to ACEs as part of regional supervision workshops. Monitoring data was used to make mid-course adjustments, including reallocating funds to better-performance ACEs. The results framework/DLIs were revised as needed. The ICR reported ACE survey results on Bank support, which rated education and technical advice of the Bank team at 4.06 out of 5 (on a scale of 1-5 with 5 being the highest). Responsiveness to queries and timely and adequate information was also rated at 4 and above. The lowest rating for the Bank team was on procurement support with a rating of 3.8.

Quality of Supervision Rating

Satisfactory

Overall Bank Performance Rating

Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The results framework was robust, as it clearly linked the project activities to intended outcomes as identified in the theory of change. The use of Disbursement-Linked Indicators, which were common across all ACEs and directly linked to the outcome indicators with clear data collection mechanisms, helped to ensure focus on project outcomes. However, as noted in the ICR (page 32), there were some shortcomings in the definitions of DLIs and clarification for individual ACEs was needed to improve quality of data collected. The verification system by a third party was included to support quality of data, particularly as ACEs would be newly formed with only limited capacity for M&E. Evaluative activities were also planned, including student satisfaction surveys, tracer studies, and technical audits.

b. M&E Implementation

ACEs capacity for monitoring was initially limited, and early rounds of data submitted were of insufficient quality. The verification process also experienced challenges due to language barriers, and the time lapse between the end of training and verification (particularly for the short-term courses) which led to issues with tracking beneficiaries in a timely manner. These issues of quality of data reported by ACEs and the timeliness of verification processes were subsequently improved. These adjustments were critical given the reliance on disbursement linked indicators. Several evaluations were conducted, including student satisfaction surveys in 2017 and 2018, a tracer survey of master's programs graduates in March 2019, evaluation questionnaires from ACE regional meetings, bibliometric analysis of research outputs from ACEs from 2011 to 2018, and a review of training and research quality prepared by AAU in February 2020.

c. M&E Utilization

The use of disbursement-linked indicators ensured that M&E data was utilized to inform project implementation and provided accountability for ACEs according to the performance agreements they had each signed. Performance data were also used to inform decisions at regional meetings on reallocating project funds among ACEs and/or providing additional support to specific ACEs. The ICR (page 33) also noted that the evaluations provided useful information with respect to the project's contribution in achieving both immediate and longer-term objectives.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

The project was classified as an Environmental Category "B" project due to rehabilitation/expansion of facilities, thus triggering the safeguard for Environmental Assessment (BP/OP 4.01). Environmental and Safeguard Management Plans were prepared by each participating university that intended to pursue civil works. According to the ICR (page 33), each ACE that undertook civil works applied a checklist of actions during construction and the safeguard rating was maintained at Satisfactory throughout the project period. No safeguard issues were raised during the site visits by the verification agency.

b. Fiduciary Compliance

Financial management: According to the ICR (page 34), financial management performance was satisfactory. Interim financial reports and audit reports of generally acceptable quality were submitted according to project covenants, albeit with some delays. The project featured disbursement-linked indicators, some of which were related to financial management performance, such as timely submission of interim financial reports, financial web transparency, functioning audit committee, and internal auditing. According to the ICR (page 34), these DLIs were mostly achieved by all of the ACEs. The ICR does not report on findings on audit reports, namely whether there were any qualifications, although the task team subsequently confirmed there were no qualifications.

Procurement: According to the ICR (page 34), procurement performance was moderately satisfactory. Each ACE prepared a procurement manual and the project staffing included dedicated procurement officers, who were well supported by regional staff. Again, disbursement-linked indicators related to procurement were included, such as timely procurement and timely post procurement audits. The ICR does not report on whether there were any procurement irregularities, although the task team subsequently confirmed there were none.

c. Unintended impacts (Positive or Negative)

None reported.

d. Other

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11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Satisfactory	

Bank Performance	Satisfactory	Satisfactory
Quality of M&E	Substantial	Substantial
Quality of ICR	---	Substantial

12. Lessons

Lessons drawn from the ICR (pages 37-39):

- Strong institutional ownership and leadership are essential components for a successful Center of Excellence. In the case of this project, there appeared to be a reasonable correlation between an ACE's success and the institutional support it received, pointing to the need for ensuring adequate incentives for institutions to provide an enabling environment. Moreover, the strength of ACE leaders was an essential variable. In cases where there was slow implementation at an ACE, change in center leadership alone led to notable improvements in performance. This experience highlighted the need to incorporate leadership development in future project designs.
- Strong linkages between ACEs and their respective national governments can increase impact on the higher education sector. In the case of this project, ACEs operated under the authority of their national governments, with National Review Committees established to supervise ACE performance at the country level and to ensure alignment with the national government's strategic agendas. Support at this high level allowed for lessons from the development of ACEs to impact the broader higher education institutions and systems in their country.
- Capacity to engage the private sector is essential to ensure knowledge transfer. In the case of this project, collaborative knowledge partnerships with private-sector entities included participation of industry representatives on curricula boards and ACE advisory committees, research consultancies and internship placements and partnership with visiting faculty from industry. However, while there was some success in placing master's and Doctoral students in internships in private sector settings, overall this was the biggest challenge for many of the ACEs. This experience highlighted the need to incorporate capacity building on engagement with the private sector in future project designs.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR was well-organized and results-oriented. The quality of evidence was substantial, drawing upon the significant amount of data collected for the disbursement-linked indicators. The theory of change was well-established with regards to the immediate project-level outcomes of increased regional specialization and

increased enrollments/graduates. Although the rationale for and innovative nature of the regional approach were well-articulated, it is not clear whether costs of regional mobility (i.e., expenses for students to receive training outside their own country) make this a cost-efficient approach overall. Lessons were clearly drawn from project experience and well-formulated to enable future learning in higher education projects.

a. Quality of ICR Rating
Substantial