



Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 26-Aug-2019 | Report No: PIDISDSC25648



BASIC INFORMATION

A. Basic Project Data

Country Western Africa	Project ID P169064	Parent Project ID (if any)	Project Name Second Africa Higher Education Centers of Excellence for Development Impact (P169064)
Region AFRICA	Estimated Appraisal Date Aug 27, 2019	Estimated Board Date Oct 10, 2019	Practice Area (Lead) Education
Financing Instrument Investment Project Financing	Borrower(s) Republic of Benin: Ministry of Economic and Finance, Republic of Togo: Ministry of Economy and Finance, Republic of Niger : Ministry of Economy and Finance, Republic of The Gambia: Ministry of Finance and Economic Affairs, Republic of Cote D'Ivoire: Ministry of Higher Education, Research, Science and Tech., Republic of Cameroon: Ministry of Economy, Planning and Regional Development	Implementing Agency Association of African Universities (RFU)	

Proposed Development Objective(s)

To improve quality, quantity and development impact of postgraduate education in selected universities through regional specialization and collaboration.

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	178.00
Total Financing	178.00



of which IBRD/IDA	69.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	69.00
IDA Credit	69.00

Non-World Bank Group Financing

Counterpart Funding	82.00
Borrower/Recipient	82.00
Other Sources	27.00
FRANCE: French Agency for Development	27.00

Environmental Assessment Category

B - Partial Assessment

Concept Review Decision

Track I-The review did authorize the preparation to continue

Other Decision (as needed)



B. Introduction and Context

Regional and Country Context

- 1. Sub-Saharan Africa (SSA) is home to the largest share of the global poor and demonstrates the widest poverty gap.** Of the 767 million people living below the extreme poverty line, 389 million (51 percent) are in SSA. Three of the predominant attributes of the profile of the poor are that they are poorly educated, young, and employed in the agricultural sector. The common drivers of inequality which need to be addressed to reduce the poverty gap are: slow human capital accumulation; disparities in access to jobs and income-generating opportunities; and unsuccessful government interventions that attempt to address market-based inequalities (such as taxes and transfers).
- 2. SSA has experienced remarkable economic growth with an average annual real gross domestic product (GDP) growth rate of 5.3 percent between 2003 and 2013, driven largely by a commodity price boom. This growth, however, did not translate into significant poverty reduction,** in part due to high population growth, limited creation of jobs and unequal distribution of the benefits of such economic growth. The pace of economic growth in SSA has increased recently – rising from 1.5 percent in 2016 to 2.6 percent in 2017, although this remains the lowest level of economic growth observed in the sub-region in more than two decades. While SSA has tremendous potential for growth, recent trends and a modest outlook moving forward reflect, in part, insufficient progress on structural reforms.
- 3. To achieve strong economic growth and reduce poverty, increased productivity across key economic priority sectors, economic diversification, and implementation of structural reforms are needed.** Human capital development is essential for increasing productivity and promoting economic diversification. Currently, SSA economies are highly dependent on unskilled labor and natural resources, preventing the region from moving up the value chain and becoming more specialized in knowledge-intensive, high value-added activities. In addition, of importance is the low institutional capacity in the region to train enough professionals with the required technical and critical thinking skills (such as high-order cognitive skills) to incorporate new knowledge and technologies into products and services.
- 4. A range of priority economic sectors face shortages in workers with high-level (postgraduate level) skills as well as limitations in applied research which is needed to increase productivity.** Some of these priority sectors which are critical for the region's economic development include: energy (generation, transmission, and mini-grids for solar energy); extractives (mining, oil, gas); sustainable urban planning; transport; sustainable agriculture; health; environment (coastal resilience, climate change, and assessments related to infrastructure and mining); education (teacher training in science and math); and information and communication technology (ICT) (both in the ICT sector and cross-cutting into other sectors). Other important areas where high-level skills are needed are those fields focusing on more policy-relevant research on Africa's development challenges that can inform policymakers and public debate, for example the fields of statistics and quantitative economics. The region also faces technical skills shortages in the areas of procurement, financial management (FM), and safeguards (environmental and social), affecting the design and implementation of development projects financed by governments and development partners. In development projects, this results in an overreliance on expatriates and international consultants for the design and implementation of projects.
- 5. Human resource capacity in SSA remains particularly low in the science and technology (S&T) fields.** A survey of executives shows that for the indicator "Availability of scientists and engineers" Nigeria and Mauritania rank globally 79th and 137th, respectively, out of 137 countries. The share of researchers engaged in engineering and technology-related research in 2010 for Senegal and Ghana was 2 and 13 percent, respectively, compared to 62 percent (2013) in Singapore,



for example. In 2014, the number of researchers per one million inhabitants in South Korea was 6,899 and only 88 in SSA. Although home to 14 percent of the world's population, SSA's share of the global expenditure on research and development (R&D) in 2014 was only 0.8 percent, a figure which had remained static for the prior 5 years.

6. **Improved productivity can be achieved by equipping the workforce with the S&T skills required for the jobs of today and the future as well as ensuring they have the competencies necessary to develop, adapt and apply solutions to the specific sectoral challenges in Africa** (e.g., in supporting industries in producing higher value-added products and services). If African higher education institutions were transformed to deliver international-quality training and applied research, becoming more dynamic and internationally connected, such training and research could be undertaken in Africa. Thus, African talent would be more likely to stay in the region and in turn increase institutional capacity in the region to adopt more technology, deliver innovative services and support evidence-based policy making

Sectoral and Institutional Context

7. **The education systems in SSA face important challenges at all levels.** While significant gains have been observed in increasing access to primary education in the region, major efforts are still needed to ensure all children have access to quality basic education – as this provides the foundation for an individual's success in post-basic education. Continued and increased efforts are also needed to increase access to and improve the quality and relevance of secondary, technical and vocational education and training (TVET) and higher education, in an effort to combat youth unemployment and underemployment and to build overall capacity in the region.

8. **Higher education in SSA, especially at the postgraduate level, is not generally responsive to the region's needs for skills, training and knowledge.** This is a result of limited high quality and market-relevant academic programs and the small number of graduates with skills critical for the priority sectors. Consequently, many students from the region seeking postgraduate degrees make the decision to obtain them outside of SSA. Available data indicate that in 2016, out of the almost 200,000 higher education students from West and Central Africa studying outside their countries, fewer than 20 percent were studying in SSA. For example, out of the 23,000 Cameroonians pursuing their studies abroad, only 8 percent are doing so in SSA. Similarly, in 2016, 50,000 of Nigeria's 65,000 outbound students were pursuing their studies outside of SSA. While the tuition and living costs of these outbound students is expensive for the region, the loss of talent has even more significant implications. It costs the region an estimated US\$3.6 billion per year to cover the costs of these students. As a result of these students not returning to the region but choosing to work abroad upon graduating, the region is driven further into a talent pool deficit. Further, without timely expansion of quality postgraduate programs, the region will undermine the future quality and employability outcomes of higher education due to lack of qualified faculty. The student population in higher education institutions in West and Central Africa is expected to double every ten years over the next 30 years.

9. Each of the limitations mentioned above in this section are discussed in further detail below:

- (i) **Low quality of higher education programs.** Global higher education rankings provide some indication of the quality of universities and the programs they offer. The most widely used rankings show that, in SSA, only a few South African universities feature in the top 500.¹ International accreditation assessments of education

¹ An exception is Makerere University, from Uganda, which placed 401-500 in the Times Higher Education Ranking.



programs in engineering undertaken in the context of the World Bank-financed Africa Higher Education Centers of Excellence Project (ACE I) highlight the following as key drivers of poor quality programs: (a) the educational objectives of programs and student learning outcomes are not clearly stated nor are they assessed; (b) there are no periodic reviews of the competencies of graduates that are in demand by employers; (c) programs provide few hands-on practical projects/opportunities, placing an emphasis on theoretical knowledge; (d) student admissions processes do not adequately capture the preparedness of students for highly technical fields such as engineering; (e) weak processes exist for selecting and determining the basic coursework for various fields of study; and (f) no mechanisms exist to ensure that teaching and assessment procedures are followed. These shortcomings are found to be more important than the other identified shortcomings, which include the limited qualifications of the faculty as well as limitations in the teaching and learning environment (for example, limited internet connectivity, insufficient and inadequate equipment and laboratories for teaching and research).

- (ii) **Limited impact on economic development of postgraduate education and applied research (including linkages with labor-market needs of the priority sectors).** Companies, line ministries and other key sector players in the region who stand to benefit significantly from the availability of skilled graduates and relevant research outputs, are usually not active participants in the education or research activities of most SSA universities. In most universities in SSA, industry representatives and other key sector players are not involved in education or research activities. Their absence contributes to a mismatch in the demand for and supply of skills, and a misalignment of applied research with priority sector needs. As a result, graduates and research outputs of these academic programs have only a limited impact on addressing challenges that the priority sectors face.. There is inadequate engagement in, for example, curricula development, advisory boards at universities, identifying research topics and providing internships to students.. Without steering postgraduate programs and applied research towards development impact, the continent will not maximize its benefits from its human resources.

- (iii) **Limited quantity of higher education graduates (particularly from master's and PhD programs),** especially in priority sectors. The region has experienced a massive expansion in student enrollment in higher education, with the majority of public universities in Africa experiencing increases in enrollment far beyond what they were designed to accommodate. In the region as a whole, higher education enrollment increased from 2.5 million in 2000 to 7.4 million in 2015. Despite this significant expansion in enrolment, the gross higher education enrollment rate remains low at 9 percent (compared to 74 percent in the developed world). Further, only six percent of total enrolment is in master's degree programs and one percent in PhD programs. In West Africa, the share of higher education students enrolled in Science, Technology, Engineering and Math (STEM) programs, which are critical fields for economic growth and development, is as low as 9 percent in some countries, according to available data. Female enrollment in STEM fields is also extremely low – for example, reaching just 5 percent in Niger and 8 percent in Ghana. Such low higher education enrollment rates, coupled with a shortage of skilled labor, points to the significant need for a strategic expansion of the higher education sector. While there has also been a proliferation of private higher education institutions in the region, complementing the offerings of public universities, programs offered by private institutions are, in many cases, of poor quality and in the social sciences as they cost much less to offer than STEM programs.



10. **Other major challenges are observed that are critical for improving the quality and relevance of higher education and for increasing the number of qualified graduates:**

- (i) **Limited regional higher education integration:** Regional higher education integration – which to date has been limited – is advantageous as no one country can afford to fund quality higher education in all the areas required for the development of their economies and challenges they face. As such, it is inefficient and a missed opportunity if knowledge and skills acquisition are not generated as a public good to solve common regional problems. Further, the limited demand for higher education at a national level results in little competition among higher education institutions, and hence there is lower value-for-money (whether public or private). To date, there has only been limited regional coordination in higher education, leading to the unnecessary replication of efforts and inefficient public investments. Governments and most institutions are yet to develop a regional vision, strategy and capacity that will lead to a competitive regional market for higher education. A practical issue stemming from the lack of regional integration is the cumbersome nature of mutual and international recognition of accreditation.
- (ii) **Ineffective governance and inefficient management of higher education institutions:** Weak governance is often manifested in internal conflicts between faculties and departments, faculty and student strikes, and frequent non-merit-based appointments. Weak governance stems from: a lack of pro-active, transparent, and professional leadership; political interference; and decisions motivated by other non-academic (including personal and political) objectives. The lack of a consistently maintained academic calendar with timely admission and exams – combined with limited management information systems (MIS), weak FM and procurement at the institutional level – often lead to low quality programs and, hence, graduates with low level of competences. Specifically, the lack of reliable and timely data results in poor planning, lack of accountability of institutional leadership, an inefficient use of resources, and difficulties in assessing institutional performance.
- (iii) **Inadequate financing for higher education:** The provision of quality higher education cannot be sustained without additional contributions from affluent households and the private sector. Public funding for higher education is scarce across the region – and, by itself, is insufficient to finance the expansion of and improvements in higher education. Except for Senegal, Sierra Leone, Ghana, Cote d’Ivoire, and Gabon, government investments in higher education in West and Central Africa is less than 1 percent of GDP, on average. Most students enrolled in higher education in SSA come from relatively affluent households that can contribute more towards covering the costs of higher education particularly at the postgraduate level. Currently, public funding in SSA targeting low-income students is insufficient. Further, public funding is not specifically channeled to strategic areas of higher education where private investments are not forthcoming (such as STEM). Also, institutions do not give adequate attention to supplementing public funding through non-budgetary services (e.g., student fees, consultancies, private donations, and international R&D competitions).

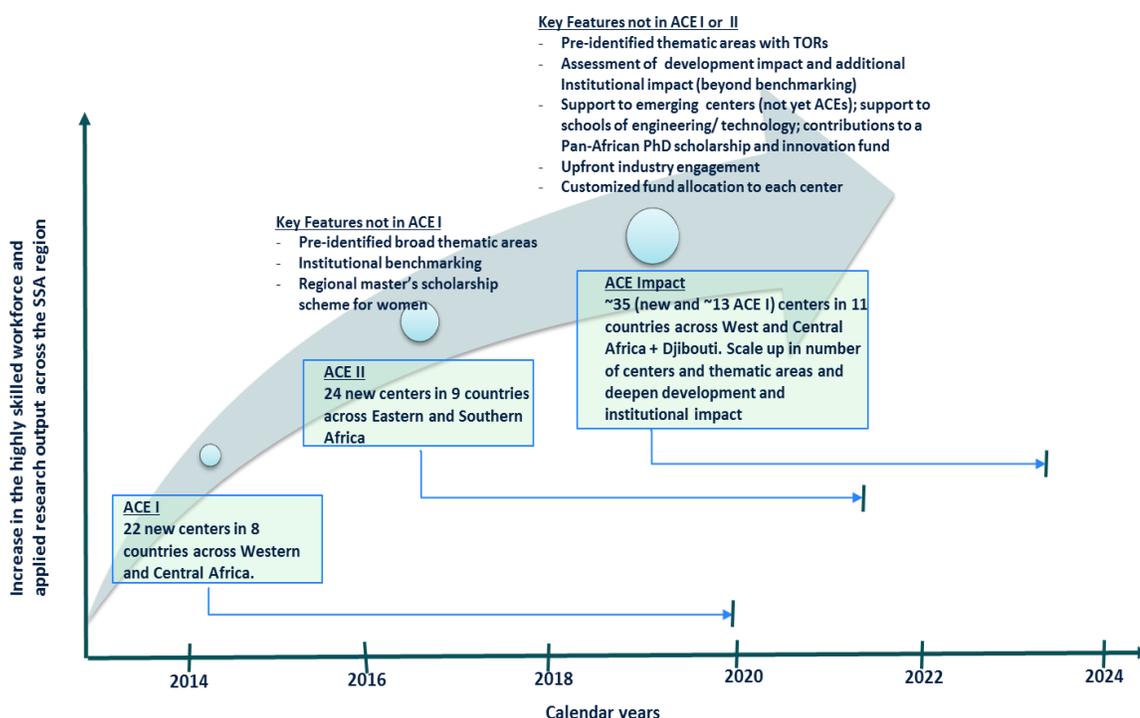
11. **Addressing the above-mentioned challenges in the higher education sector would require interventions at the national and regional levels.** A number of such efforts have been undertaken or are currently underway. At the national level, the World Bank is supporting national higher education programs in several SSA countries. For example, in West Africa, there are currently International Development Association (IDA)-funded higher education projects in Senegal Mali, Burkina Faso and Cote d’Ivoire (. These projects aim to address key challenges faced by the national higher education system - related to employability, access and equity, and the quality of higher education - with a focus on the undergraduate level and government capacity for accreditation and financing. At the regional level, the World Bank



launched its first regional higher education intervention in SSA through a series of ACE Projects. The ACE I project was launched in 2014 in West and Central Africa and supports 22 centers and the ACE II project was launched in 2016 in East and Southern Africa and supports 24 centers.

12. The proposed new Africa Higher Education Centers of Excellence for Development Impact (ACE Impact) operations target West and Central African countries (including Djibouti) and consist of two phases - which are under preparation concurrently – across 12 countries. The proposed ACE Impact I project will support an estimated 25 ACE centers in 6 participating countries (Burkina Faso, Djibouti, Ghana, Guinea, Nigeria and Senegal). The proposed Phase II project will support about 8 – 10 ACE centers in 6 participating countries (Benin, Cameroon, Cote d’Ivoire, Niger, The Gambia and Togo). The technical design of both phases are the same, but they are being prepared and delivered in a phased approach based on the readiness of participating countries (see the Project Description section below for the rationale for the phased approach). Figure 1 below provides an illustration of the key differences between the three ACE projects (ACE I, ACE II and ACE Impact – Phases I and II).

Figure 1: ACE Projects and the key differing features



Note: The blue arrows show the duration between start and expected end dates of project implementation.

13. The ACE projects aim to build regional capacity to deliver high quality postgraduate courses and to conduct and disseminate international-caliber applied research focused on addressing development challenges in SSA. Given the limited resources available to support postgraduate training and applied research in SSA, the ACE projects are designed to increase specialization and excellence of higher education. Students are increasingly crossing borders for their studies in West and Central Africa and thus remain in the region. Further, universities will enhance regional collaboration through university networks. This will build regional capacity essential to Africa’s development. Though regional, the ACE projects



leverage institutional and national strengths to serve both national and regional needs. To achieve results, the ACE projects use a regional model with the following elements: transparent and competitive selection of centers; a strong focus on regional collaboration and student recruitment; strong government and institutional ownership; results-based financing (RBF) with independent verification of results; a robust monitoring and evaluation protocol; intensive implementation support using regional and international subject matter experts; and the development of partnerships across institutions, private sector/industry actors and academics.

14. Each ACE center contributes to the broader regional project goal of strengthening and regionalizing higher education in SSA. An ACE center consists of a group of faculty members from multiple academic departments led by a recognized center leader and with a network of external sector and academic partners. The education and applied research activities of the ACE center focus on a single thematic area that is critical for development, for instance, climate change. ACE centers aim to recruit a high-quality regional student body and work towards: producing a highly trained workforce with skills tailored to the needs of the sector(s) they serve; partnering with industry and sector stakeholders to identify regional needs; and disseminating research results both in international publications and through appropriate regional channels.

15. The proposed ACE Impact II project, builds on lessons learned from the ACE I and II projects and emphasizes the largest remaining challenge of increasing impact on development. The ACE I and II projects showed that the selection and support model stimulated the African universities to achieve and, in many cases, exceed the targets for expansion in postgraduate student enrolment, including for regional students, and research, as well as, for the first time, achieve a certified international quality of education, raise financial sustainability of the results and substantially increase engagement with the targeted economic sector. With the success of the established model, the proposed project will scale up the impact on production of quality, employable graduates and applied research in well-performing existing centers, and support new centers, including in countries that did not participate in ACE I . Further, the proposed project a further evolution by targeting a larger impact on development through: (a) specific targeting of pre-identified specific skills and knowledge gaps for the region (power engineering, ICT, environmental sciences, etc.); (b) ensuring mandatory upfront and continuous engagement with the targeted economic sector/industry players; (c) increasing focus on institutional change in the university (beyond one center in a university), including a specific focus on strengthening engineering and technology-focused institutions; (d) allowing less competitive (Emerging) institutions to benefit from regional networking with the ACEs; (e) directly linking with a series of other World Bank- and government-supported regional initiatives ; and (f) building the project into an multi-partner platform for enhancing the quality and reach of Africa’s higher education.

16. Through the two ACE Impact projects, the World Bank will support a total of 65 centers of excellence in participating SSA countries. This support will serve as a needed catalyst in building the highly skilled workforce and generating the applied research knowledge required to drive SSA’s economic transformation. In the developed and emerging economies, universities continue to be pivotal in driving change through a similar centers of excellence approach although often in larger quantities.

17. The proposed second ACE Impact project is aligned with the Partnership for skills in Applied Sciences, Engineering and Technology (PASET), which seeks to build – from the technical/vocational level to higher education and research – a technical and scientifically skilled labor force to support priority sectors in SSA. Two of the higher education related initiatives under PASET are the Regional Scholarship and Innovation Fund (RSIF) and the Regional Benchmarking of SSA



Universities. The ACE I and II projects have provided the framework within which PASET's regional scholarship fund has been nurtured and will now be supported as a World Bank-financed project - Africa Regional Scholarship and Innovation Fund for Applied Sciences, Engineering and Technology. RSIF is supported by many stakeholders in and outside SSA. Under the proposed ACE Impact projects (Phases I and II), participating countries may allocate up to US\$2 million of the ACE Impact IDA envelope to the RSIF.

Relationship to CPF

18. **The project is part of the World Bank's Africa Regional Integration and Cooperation Strategy (FY18 – FY23).** At the core of this strategy is the goal to ensure that the regional workforce is equipped with the skills and applied technical knowledge to tackle various development challenges while harnessing the advantages of a regional approach. The objectives of the strategy, which include: macro-economic stability, competitiveness and productivity, human capital and access to services and resilience to shocks, specifically, it fits into the Research, Innovation & Entrepreneurship objective of the strategy. ACE Impact -Phase II will facilitate economies of scale in the use of facilities, equipment, and staff in specialized fields; share innovations and good practices in teaching and learning; and enhance cross-border research networks and nudge institutions towards regionality. Further, the proposed project will help to establish a competitive regional market for higher education in which ACEs will be strengthened to provide quality postgraduate education in specific fields within the priority sectors. ACEs and their host institutions will receive support to develop their own regional strategic plans to help them attract the right profile of students and faculty from the region (and beyond) and institute the necessary student affairs services to cater to both nationals and non-nationals of the ACE host countries.

19. **The proposed ACE Impact project contributes to the World Bank's twin goals and relevant World Bank strategies.** The proposed project aims at reducing higher-level skills gaps, enhancing learning, and improving applied research and technology uptake in the priority sectors. Therefore, it will ultimately increase productivity, spur economic growth, provide better opportunities of social mobility of children from low and middle-income families through higher education, and thereby poverty reduction. As such, the project fits squarely within World Bank's twin goals of reducing extreme poverty and boosting shared prosperity, as well as the World Bank's 2020 Education strategy "Learning for All".

20. **Country Partnerships:** Although a regional project, the ACE Impact projects are linked to strong national interests in higher level skills development. Benin, Cameroon, Niger, The Gambia and Togo have formally expressed interest in partnering with the World Bank by participating in the ACE Impact Project (Phase II) through their Ministries of Finance. Cote d'Ivoire is in the process of preparing a formal request for funding to AFD, co-finance the project. The proposed ACE Impact Phase II project was endorsed by the Ministers of Higher Education of the Economic Community of West African States (ECOWAS) in September 2017 with the aim of promoting the sharing of human and university resources through the regional centers of excellence. The proposed approach of more narrowly targeting specific skills gaps through the ACE model has received support from many governments, universities and the private sector as well as from a number of the Bank's Global Practices, development partners and other international organizations.

21. **Regional Partnerships:** The proposed ACE Impact Projects (Phases I and II) complements other World Bank regional initiatives in SSA, including ACE I and ACE II, in 18 countries. This continental reach of the ACE program yields synergies in project design and implementation, networking and partnerships among countries, economies of scale for collaboration outside of the SSA region (e.g. Korea, China, Japan, US and France), and allows for benchmarking among the African sub-regions. The proposed ACE Impact Project (Phase II) is also aligned with PASET, which seeks to build the technical and



scientific skilled labor force for priority sectors, from the technical/vocational level to higher education and research, to support the structural transformation of Africa. The ACE family of projects has so far provided the framework within which PASET's RSIF has been nurtured and is now going to be supported under the World Bank-financed Project.

22. **Collaboration with Development Partners: There is strong interest from development partners and national research agencies in supporting higher education and science in Africa through the ACE Impact (both phase I and II) projects.** Currently, there are numerous higher education and research projects being funded by bilateral development partners and national science research councils in SSA. There is also a high level of fragmentation which reduces impact. The value added of the ACE model is its potential role in the coordination of higher education interventions. Bilateral funders are interested in coordinating funding to capitalize on strengths and comparative advantage. A September 2017 workshop resulted in partnership commitments from several bilateral and science research funders²: Some of the planned partnerships include those with: (i) AfD and NUFFIC (Netherlands) to provide parallel or co-financing to ACE Impact Centers based upon the World Bank selection and funding model; and (ii) Parallel funding to finance international research and education collaboration between African and international academic institutions. AFD has confirmed its financial support. See Annex 2 for further details on these partnerships.

C. Proposed Development Objective(s)

23. To improve quality, quantity and development impact of postgraduate education in selected universities through regional specialization and collaboration.

Key Results (From PCN)

24. **The proposed project aims to benefit the following:**

- a. Students in the selected ACEs and those enrolled in the ACE hosting institutions, as well as students in partner institutions across West and Central Africa. Further, current and future students will have an expanded choice within West and Central Africa of quality and development-related education programs;
- b. Faculty and staff from the ACEs, host institutions and partner institutions who improve their qualifications and teaching and research conditions;
- c. Employers and other knowledge partners, including Ministries and public entities, who will have easier access to highly skilled professionals and to applied research for solutions to pressing development challenges; and
- d. The general population in West and Central Africa who will benefit from a network of dynamic university centers focused on skills and applied research to drive development.

² French Agency for Development- AFD, National Research Agency- ANR, National Center for Scientific Research- CNRS, Research Institute for Development-IRD (France); German Academic Exchange Service- DAAD, German Research Foundation- DFG, German Federal Ministry of Education and Research- BMBF/DLR (Germany); Japan Society for the Promotion of Science- JSPS, Japan Science and Technology Agency- JST (Japan); Research Councils- RCUK, Wellcome Trust (UK); and National Science Foundation- NSF (US).



25. **The proposed PDO indicators:**

- a. Number of students (national and regional) enrolled in postgraduate programs in the selected ACEs (Quantity of Education & Regional Specialization)
- b. Number of ACE programs and ACE host institutions that obtain international accreditation (Quality of Education)
- c. Number of ACEs that have substantial development impact (as measured by an independent evaluation of each center's impact on development at mid-term and end of project)
- d. Share of ACE hosting institutions with a comprehensive strategic plan for regionalization (regional specialization and collaboration)
- e. Number of students and faculty participating in internships and/or apprenticeships in relevant industry/sector institutions (Development Impact of Education)

Concept Description

26. **The proposed ACE Impact Project – Phase II is a follow up to the ACE Impact Project – Phase I which is also currently under preparation.** Prior to the Regional Operations Committee (ROC) review meeting for the then ACE Impact project held in August 2018, there was only one ACE Impact project, with 12 participating countries. It was decided at the ROC meeting that the ACE Impact project should be split into two phases based on the readiness of participating countries. This would simplify the project design, assist in a timely delivery of the Project and contribute to effective implementation (see Annex 1 for the full decision note). This phased approach would allow prioritizing of countries and institutions that are ready to move forward. The two phases – the ACE Impact Phase I Project and the ACE Impact Phase II Project will remain as one program, with common evaluation and selection schedule and processes, project operational manual (POM), as well as implementation arrangements structures.

27. **The primary differences between the two phases include: the list of participating countries; and the preparation schedules (Board Review dates).** Also, the regional facilitation unit (RFU), which will be hosted at the Association of African Universities (AAU), and will be responsible for regional coordination and monitoring and evaluation activities for both phases, will be financed under Phase I through a regional grant (US\$10 million). The countries participating in the proposed ACE Impact Project (Phase I) are Burkina Faso, Cote d'Ivoire, Djibouti, Ghana, Guinea and Nigeria and Phase I is scheduled to be reviewed by the Board on December 21, 2018. These countries to be supported under Phase I were selected based on the following criteria: (i) country readiness- determined by the availability of a government team that can assist in the fiduciary assessments; countries with pre-identified pool of participating institutions; or countries with no co-financing; (ii) expressed interest – countries that expressed interest in participating in the project first are prioritized and (ii) planned elections – those countries with planned elections in February – March 2019 were also prioritized. Phase II will aim to support Benin, Cameroon, Cote d'Ivoire, Niger, The Gambia and Togo and is tentatively planned to be reviewed by the Board in April 2019.

28. **The proposed ACE Impact Project (Phase II), consists of two components: Component 1: Establishing new and scaling-up well-performing existing ACEs (from ACE I) for development impact; and Component 2: Fostering regional partnerships and scholarships.** Component 1 will aim to strengthen capacity in the ACEs and their host institutions (supply-side), while Component 2 will aim to strengthen non-ACE institutions in the region and allow these institutions access to the increased capacity in the ACEs (demand-side). Financing for Component 1 and 2 will be result-based.



Table 1: Overview of ACE Impact Project Components and Sub-Components

Component 1	Component 2
Establishing new and scaling-up well-performing existing ACEs for development impact	Fostering regional partnerships and scholarships
<p>Sub-component 1.1 Support to establish new centers of excellence.</p> <p>Sub-component 1.2 Support to scale-up well performing ACE I centers</p> <p><i>Additional support to the best engineering and technology ACE institutions (already incorporated into costs for Sub-components 1.1 and 1.2)</i></p>	<p>Sub-component 2.1 Support to emerging centers (non-ACEs) for networking, regional technical assistance and improving learning environment</p> <p>Sub-component 2.2 Support for PhD scholarships through the PASET Regional Scholarship & Innovation Fund</p>

Component 1: Establishing new and scaling up well-performing existing ACE I Centers for development impact (IDA funding: US\$44.5 million; AFD funding: US\$24 million)

29. **Component 1 aims to build and strengthen the capacity of competitively selected centers based in higher education institutions across West and Central Africa.** Component 1 has two sub-components: Sub-component 1.1 will establish new ACEs for skills development and knowledge generation (through applied research) to address development challenges, which are not addressed under the ACE I project. Sub-component 1.2 will provide additional support to well-performing ACEs participating in the ACE I project (these ACEs will be referred to as *renewals*) to scale-up impact on development challenges, to strengthen regional collaboration, and ensure that these ACEs are fully fiscally sustainable). Additional funding will be available to support the best engineering and technology institutions hosting ACEs from Sub-components 1.1 and 1.2, to strengthen institutional impact.

30. **Each ACE Impact center (new and renewals) supported through Component 1 will focus its activities on a specific regional development challenge.** Each of these centers is targeted in its scope and will deliver postgraduate education and applied research programs developed in coordination with relevant stakeholders. While the center workplans are focused, a multidisciplinary approach will be essential to achieve the goals of each center. The release of IDA funds will be linked to the achievement of results (indicators) known as Disbursement-linked Indicators (DLIs). ACEs under Component 1 will receive funds based on the achievement on seven DLIs: (a) Institutional implementation readiness; (b) development impact of the ACE Center; (c) quantity of students, with focus on gender and regionalization; (d) quality of education and research; (e) relevance of education and research; (f) fiduciary enhancement- timeliness and transparency; and (g) Institutional impact- to be accomplished by ACE host institution.

Sub-component 1.1: Support to establish new centers of excellence (IDA funding: US\$36.5 million; AFD funding: US\$10 million)



31. **Sub-component 1.1 aims to support the establishment of approximately 8 new ACEs (also referred to as ACE Impact centers under the Project) and increase the number of top quality centers and relevant programs offered in the region and also broaden the scope by introducing new thematic areas that do not exist in ACE I.** This sub-component will provide, on average, US\$6 million to each center to fund its activities. The final funding allocation to each center will depend on the thematic area, the overall funding needs indicated in the center's proposal, the funding envelope of the center's government and the respective government's priorities.

Sub-component 1.2: Support to scale-up well performing ACE I centers (IDA funding: US\$8 million; AFD funding: US\$8 million)

32. **Sub-component 1.2 aims to provide additional funding and support to approximately 2-3 existing ACEs (currently supported under ACE I, also under this project referred to as renewal centers) to enable them to scale-up their activities and deepen their development impact.** This funding will help these centers to: strengthen productive partnerships with industry, sectoral stakeholders, ministries and policymakers; boost their regional leadership of regional networks; allow them to lead efforts in the training of quality postgraduate students and maintain their international accreditation; and act as drivers of applied research solutions to development challenges in the region. The average funding for each selected renewal ACE will be about US\$6 million, which is US\$2 million less than the amount of funding previously provided under ACE I, with the expectation that most of these centers will not require capital intensive civil works at the levels they needed in ACE I. Further, these ACEs will be supported to increase their fundraising efforts to become fully sustainable after this round of funding. The final funding allocation to each center will be decided following the selection of the ACEs and will depend on the thematic area, the overall funding needs indicated in the center's proposal, the funding envelope of the center's government and the government's priorities. For this sub-component, although the release of IDA funds will be linked to the achievement of the same seven DLIs listed under Sub-component 1.1 above, the DLI amounts for each center will vary among ACEs to customize to the center-specific objectives. The center specific amounts will be indicated in the Financing Agreements (FAs) and the POM.

Additional support to the best engineering and technology ACE institutions

33. **This is a new feature and did not exist under ACE I or ACE II. Institutions that are selected to host an engineering and/or technology-focused ACE Impact center (either a new center under Sub-components 1.1 or renewal center under Sub-component 1.2) with capacity in other engineering and technology disciplines will have the opportunity to receive additional funding of up to US\$8 million.** This funding would support an institution-wide strengthening of the engineering and technology programs within their College or School of Engineering.³ Potential interventions to be coupled with the center activities will focus on increasing institutional impact, including: the scaling-up of student enrolment (including undergraduates); achieving international quality standards; introducing new academic programs; promoting project-based learning and innovative pedagogy; establishing new laboratories; enabling technology transfer and business/entrepreneurship; building linkages to business programs; enhancing teaching and research capacity; and promoting institutional transformation in terms of policies and operations. Up to four engineering and technology institutions will be selected based upon the recommendations of independent expert evaluators, government evaluation

³ The term College/School of Engineering is used generically here, and may refer to a Faculty, a Polytechnic within a university, or other similar organizational structure.



of institutional capacity and available country funding. The College of Engineering will be expected to meet the same seven DLIs just as its ACE center with some additions to incentivize the enrolment of undergraduates (especially females) and the promotion of technology transfer, entrepreneurship, innovation academic programs, and internship/co-operative education.

Component 2: Fostering Regional Partnerships and Scholarships (IDA funding: US\$17.5 million)

34. **Component 2 seeks to expand the regional impact of the ACEs funded under Component 1 by providing demand-side funding for partnering institutions and regional students to purchase training and consulting services from the ACEs that are most relevant.** Component 2 has two sub-components: Sub-component 2.1 will finance regional institutional partnerships, while Sub-component 2.2 will be optional and will finance governments' contribution towards the PASET RSIF.

Sub-component 2.1: Support to emerging centers (non-ACEs) for networking, regional technical assistance and improving learning environment (IDA funding: US\$13.5 million)

35. **Sub-component 2.1 will support regional institutional partnerships between higher education institutions and the ACEs (under Component 1) to strengthen the capacity of the participating higher education institutions** (these are referred to as *emerging centers*). These emerging centers could be in the form of a department or a group of departments within an institution. Countries eligible for support under this sub-component are those that have not yet received support to establish ACEs (in ACE I) and who have expressed interest under this phase, notably, The Gambia and Niger. Selected emerging centers may establish partnerships with regional and other international institutions.

Sub-component 2.2: Support for PhD scholarships through the PASET Regional Scholarship & Innovation Fund (RSIF) (IDA funding: US\$4 million)

36. **Sub-component 2.2 will finance regional scholarships through the PASET RSIF to support primarily the training of the next generation of faculty for higher education institutions in the region.** This sub-component will build institutional capacity and will improve the quality and quantity of academic staff in the region's higher education institutions, ultimately increasing academic capacity of these institutions.

37. **The RSIF, a pan-African Scholarship program, through a regional competition, provides Ph.D. scholarships to top-performing master's students with the aim of creating a strong pipeline of faculty and researchers in applied sciences, engineering and technology fields.** Five countries (Cote d'Ivoire, Ethiopia, Kenya, Rwanda and Senegal) have taken the lead and made commitments of US\$2 million each to the Fund which was established by African governments in 2015. Several SSA countries have expressed strong interest in contributing to the RSIF. The RSIF, through the World Bank-financed Africa Regional Scholarship and Innovation Fund for Applied Sciences, Engineering and Technology (RSIF) Project (P165581), recently approved by the World Bank (in July 2018), is also receiving US\$15 million and US\$10 million from the World Bank (IDA grant) and South Korea (grant), respectively. This Fund seeks to serve as a pan-African platform which will establish an African-led permanent fund to finance the continent's top students in S&T to pursue their studies in Africa, while providing them with opportunities through a sandwich program to carry out part of their research at top international partner institutions. To participate in the RSIF, each country is required to contribute US\$2 million. Countries can contribute from their own national resources and/or through World Bank-financed national and regional higher education projects.



Under the proposed ACE Impact- Phase II project, participating countries may choose to finance their contribution to the RSIF through IDA credits. The Gambia and Niger have expressed interest in participating. The final list of participating countries will be confirmed during project appraisal. On approval of the ACE Impact project, any funds allocated by participating countries to the RSIF will be disbursed directly to the General or Permanent Fun (based on government preferences) established and managed under the World Bank-financed RSIF project, pursuant to agreements signed between each contributing country and the implementing entity of the Fund (the International Centre of Insect Physiology and Ecology- *icipe*). This arrangement will be included in the FA) with each government contributing to the scholarship fund.

Unallocated (IDA funding: US\$7 million; AFD funding: US\$3 million))

38. **An amount of US\$10 million will be designated as unallocated.**, About 8 percent of each country’s funding envelope will remain unallocated and will remain within each country’s allocation. These unallocated funds will be allocated during project implementation to either: (i) centers and host universities that are producing strong results to further improve overall impact; or (ii) unforeseen but necessary activities critical for the achievement of the PDO. Following an evaluation of the performance of ACEs at mid-term, the World Bank in discussion with governments will decide which ACE(s) will receive the unallocated funding within each country’s funding envelope.

39. **Based on the current IDA envelope and consultations between the World Bank and participating countries, the country allocations are as indicated in Table 2 below.**

Table 2: Tentative funding envelope and sources of funding for participating countries (US\$ million)*

Country	Sources of Funds (US\$ million)			
	Total Project Cost	Government Funding**	IDA Credit	AFD Funding
Benin	30	14	6	10
Cameroon	32	14	18	
Cote D’Ivoire	32	15	0	17
Niger	29	14	15	
The Gambia	21	9	12	
Togo	34	16	18	
Total	178	82	69	27

Notes: * These are tentative amounts that will not be exceeded. They will be finalized following the selection of the centers and negotiations with each government).

**The countries’ contribution to the project cost is the estimated amount required for the salaries of the staff of the ACEs and other university personnel.



40. **The proposed project will use the Investment Project Financing (IPF) lending instrument with results-based funding for Component 1 and Sub-component 2.1, following the successful experience of this approach under the ACE I Project.** Results-based financing (RBF) through DLIs has been an effective and innovative tool under the ACE I project to focus university teams around the expected results of the project. In particular, the significant resources linked to the attainment of international accreditation, internships, regional students’ recruitment, and revenue generation constituted an important incentive to achieve these results. Further, the RBF approach necessitates a stringent verification process of students, learning infrastructure and equipment, etc., which keeps all partners disciplined in the reporting and attainment of the results.

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The Project will be in multiple countries in West and Central Africa region at some institutions of higher learning. The project will select these centers from the existing institutions. The project aims to focus on quality enhancements of these institutions, where majority of the funding will be on "softer items" such as faculty development, curriculum update, scholarships, and learning resources. A fraction of the project funding will involve construction, rehabilitation and extensions of the selected institutions of facilities as well as equipment of facilities. There will be no new land acquisition for these centers because the extension, rehabilitation and construction will be on existing sites.

B. Borrower’s Institutional Capacity for Safeguard Policies

The borrower’s institutional capacity for the implementation of the safeguard policies will assessed and the borrower will benefit from guidance of the Bank’s Safeguards specialists.

C. Environmental and Social Safeguards Specialists on the Team

Joseph Ese Akpokodje, Environmental Specialist
Olukayode O. Taiwo, Social Specialist

D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The Environmental Assessment category is B (Partial Assessment) and Environmental Assessment (OP/BP4.01), Natural Habitat (OP/BP 4.04) and Physical Cultural Resources (OP/BP4.11) are triggered. Environmental and social impacts of construction, rehabilitation and extensions of academic institutions as well as the purchasing of equipment for installation in facilities on existing sites in the 6 participating countries are expected to be limited, small-scale ,site



specific and mitigation measures can be easily designed or implemented . Since the locations are not known, stand alone Environmental and Social Management Framework (ESMF) have been prepared and are being reviewed, consulted upon, approved and will be disclosed before appraisal. Following the selection of the participating institutions and indication of locations of project activities in the 6 participating countries at implementation, an Environmental and Social Impact Assessment (ESIA) or an Environmental and Social Management Plan (ESMP) will be prepared for each candidate institution to manage environmental and social impacts. Any non-hazardous and hazardous wastes from the laboratories associated with the project will be dealt with appropriately according to the ESMP/ESIA. Participating institutions and locations selected after appraisal will prepare, review and disclose an ESIA or an ESMP before commencement of project activities for each eligible investment.

Performance Standards for Private Sector Activities OP/BP 4.03	No	NA
Natural Habitats OP/BP 4.04	No	Natural habitats will not be affected by project activities.
Forests OP/BP 4.36	No	The project will not involve forestry activities.
Pest Management OP 4.09	No	The project will not involve the use or purchase of pesticides.
Physical Cultural Resources OP/BP 4.11	Yes	The project may carry out activities in areas of cultural significance and heritage that could impact and/or lead to the discovery of ancient antiques and other physical resources. As part of the ACE Impact Project, this will also concern buildings of historical value and which would be the subject of rehabilitation works. To mitigate these risks, contracts for civil works involving excavations should incorporate procedures for dealing with situations in which buried physical cultural resources (PCR) are unexpectedly encountered. Specific procedures (such as chance finds procedures) will be included in the ESMF and subsequent ESIA/ESMPs as required.
Indigenous Peoples OP/BP 4.10	No	The project might involve Indigenous Peoples.
Involuntary Resettlement OP/BP 4.12	No	The project will not finance activities that involve land acquisition leading to physical and economic displacement.
Safety of Dams OP/BP 4.37	No	The project will not involve dams.



Projects on International Waterways OP/BP 7.50	No	The project is not on International Waterways.
Projects in Disputed Areas OP/BP 7.60	No	The project is not in Disputed Areas.

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Jun 26, 2019

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

This will be done before or after appraisal.

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APPROVAL

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