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June 9, 2017

<p>Closing Date: Wednesday, June 28, 2017 at 6 p.m.</p>
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FROM: Vice President and Corporate Secretary

Ghana - Secondary Education Improvement Project

Additional Financing and Restructuring

Project Paper

Attached is the Project Paper regarding a proposed additional credit and restructuring to Ghana for a Secondary Education Improvement Project (IDA/R2017-0220), which is being processed on an absence-of-objection basis.

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Report No: PAD 2416

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT PAPER

ON A

PROPOSED ADDITIONAL FINANCING CREDIT

AND RESTRUCTURING

IN THE AMOUNT OF SDR 28.9 MILLION
(US\$40 MILLION EQUIVALENT)

TO

THE REPUBLIC OF GHANA

FOR THE

SECONDARY EDUCATION IMPROVEMENT PROJECT

June 6, 2017

Education Global Practice
Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective 5/31/2017)

Currency Unit = New Ghanaian Cedi (GHS)

US\$1.00 = GHS 4.305

SDR 1 = US\$1.384320

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
BECE	Basic Education Certificate Examination
CAGD	Controller and Account General Department
CSSPS	Computerized School Selection and Placement System
DLI	Disbursement-Linked Indicator
DLR	Disbursement-Linked Result
EEP	Eligible Expenditure Program
ESMF	Environmental and Social Management Framework
GDP	Gross Domestic Product
GER	Gross Enrollment Rate
GES	Ghana Education Service
GIFMIS	Ghana Integrated and Financial Management Information System
GLSS	Ghana Living Standards Survey
GoG	Government of Ghana
GSS	Ghana Statistical Service
ICT	Information and Communication Technology
IFR	Interim Financial Report
IPF	Investment Project Financing
IUFR	Interim Unaudited Financial Report
JHS	Junior High School
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
MOE	Ministry of Education
MS4SSA	Math and Science for Sub-Saharan Africa
NER	Net Enrollment Rate
NITA	National Information Technology Agency
PDO	Project Development Objective
PIM	Project Implementation Manual
PPSD	Project Procurement Strategy Development
PTA	Parent Teacher Association
RAP	Resettlement Action Plan
RBF	Results-based Financing
RF	Results Framework

RPF	Resettlement Policy Framework
SDG	Sustainable Development Goal
SEIP	Secondary Education Improvement Project
SHS	Senior High School
SPP	School Performance Partnership
SPPP	School Performance Partnership Plan
TA	Technical Assistance
TIC	Technical Implementation Committee
TVI	Technical and Vocational Institution
WASSCE	West Africa Senior Secondary Certificate Examination

Regional Vice President:	Makhtar Diop
Country Director:	Henry G. R. Kerali
Senior Global Practice Director:	Jaime Saavedra-Chanduvi
Practice Manager/Manager:	Halil Dundar
Task Team Leaders:	Deborah Newitter Mikesell/ Eunice Yaa Brimfah Ackwerh

GHANA
SECONDARY EDUCATION IMPROVEMENT PROJECT ADDITIONAL FINANCING

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ADDITIONAL FINANCING DATA SHEET

Ghana

Secondary Education Improvement Project Additional Financing (P163628)

AFRICA

EDUCATION GLOBAL PRACTICE

Basic Information – Parent							
Parent Project ID: P145741				Original EA Category: B - Partial Assessment			
Current Closing Date: 30-Nov-2019							
Basic Information – Additional Financing (AF)							
Project ID: P163628				Additional Financing Type (from AUS): Scale Up			
Regional Vice President: Makhtar Diop				Proposed EA Category: B – Partial Assessment			
Country Director: Henry G. R. Kerali				Expected Effectiveness Date: 08-Nov-2017			
Senior Global Practice Director: Jaime Saavedra Chanduvi				Expected Closing Date: 30-Nov-2021			
Practice Manager/Manager: Halil Dundar				Report No: PAD 2416			
Team Leader(s): Deborah Newitter Mikesell, Eunice Yaa Brimfah Ackwerh							
Borrower							
Organization Name		Contact	Title	Telephone	Email		
Ministry of Finance		Mr. Patrick Nomo	Chief Director, Ministry of Finance	233-202012600	chiefdirector@mofep.gov.gh		
Project Financing Data - Parent (Ghana Secondary Education Improvement Project - P145741) (in US\$, millions)							
Key Dates							
Project	Ln/Cr/TF	Status	Approval Date	Signing Date	Effectiveness Date	Original Closing Date	Revised Closing Date
P145741	IDA-54520	Effective	20-May-2014	31-Jul-2014	03-Oct-2014	30-Nov-2019	30-Nov-2019

Disbursements									
Project	Ln/Cr/TF	Status	Currency	Original	Revised	Canceled	Disbursed	Undisbursed	% Disbursed
P145741	IDA-54520	Effective	XDR	101.00	101.00	0.00	58.77	42.23	58.19
Project Financing Data - Additional Financing for the (Secondary Education Improvement Project Additional Financing - P163628) (in US\$, millions)									
<input type="checkbox"/> Loan <input type="checkbox"/> Grant <input type="checkbox"/> IDA Grant <input checked="" type="checkbox"/> Credit <input type="checkbox"/> Guarantee <input type="checkbox"/> Other									
Total Project Cost:		40.00		Total Bank Financing:		40.00			
Financing Gap:		0.00							
Financing Source – Additional Financing (AF)								Amount	
International Development Association (IDA)								40.00	
Total								40.00	
Policy Waivers									
Does the project depart from the CAS in content or in other significant respects?							No		
Explanation									
Does the project require any policy waiver(s)?							No		
Explanation									
Team Composition									
Bank Staff									
Name		Role		Title		Specialization		Unit	
Deborah Newitter Mikesell		Team Leader (ADM Responsible)		Senior Education Specialist		Education		GED13	
Eunice Yaa Brimfah Ackwerh		Team Leader		Senior Education Specialist		Education		GED13	
Thomas Kwasi Siaw Anang		Procurement Specialist (ADM Responsible)		Senior Procurement Specialist		Procurement		GGO01	
Charles John Aryee Ashong		Procurement Specialist		Senior Procurement Specialist		Procurement		GGO01	

Robert Wallace DeGraft-Hanson	Financial Management Specialist	Sr. Financial Management Specialist	Financial Management	GGO31
Michael Gboyega Ilesanmi	Safeguards Specialist	Social Development Specialist	Safeguards	GSU01
Nightingale Rukuba-Ngaiza	Counsel	Senior Counsel	Country Lawyer	LEGAM
Ana Isabel Dos Reis E Sousa Piedade Abreu	Safeguards Specialist	Consultant	Environmental Safeguards	GEN01
Janet Omobolanle Adebo	Team Member	Program Assistant	Team assistant	GED13
Mariam Nusrat Adil	Team Member	Operations Analyst	Economist	OPSPQ
Stephen Kwaku Tettevie	Team Member	Team Assistant	Team Assistant	AFCW1

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
GHANA	Ashanti	Adansi North			
		Adansi South			
		Ahafo Ano North			
		Ahafo Ano South			
		Amansie Central			
		Amansie West			
		Asante-Akim South			
		Atwima Mponua			
		Bosome Freho			
		Ejura Sekyedumase			
		Kumasi Metropolitan			
		Offinso Municipal			
		Offinso North			
		Sekyere Central			
		Sekyere Kumawu			
		Sekyere South			
	Brong Ahafo	Asunafo North Municipal			
		Asunafo South			

		Asutifi South			
		Atebubu Amantin			
		Banda			
		Dormaa West			
		Jaman North			
		Kintampo North Municipal			
		Kintampo South			
		Nkoranza North			
		Nkroranza South			
		Pru			
		Sene East			
		Sene West			
		Tain			
		Tano South			
		Techiman Municipal			
		Wenchi Municipal			
	Central	Agona East			
		Asikuma-Odoben- Brakwa			
		Assin North Municipal			
		Assin South			
		Awutu-Senya			
		Ekumfi			
		Gomoa West			
		Twifo Hemang-Lower Denkyira			
		Twifo-Ati Morkwa			
		Upper Denkyira East Municipal			
		Upper Denkyira West			
	Eastern	Afram Plains (Kwahu North)			
		Afram Plains (Kwahu South)			
		Akyemansa			
		Ayensuano			

		Upper Manya Krobo			
		Upper West Akim			
	Greater Accra	Accra Metropolitan			
	Northern	Bole			
		Bunkpurugu-Yunyoo			
		Central Gonja			
		East Gonja			
		Gushiegu			
		Karaga			
		Kpandai			
		Nanumba North			
		Nanumba South			
		Saboba			
		Savelugu Nanton			
		Sawla-Tuna-Kalba			
		Tatale Sanguli			
		West Mamprusi			
	Upper East	Bawku West			
		Bongo			
		Builsa North			
		Builsa South			
		Garu Tempane			
		Kassena Nankana East			
		Kassena Nankana West			
		Nabdam			
		Talensi			
	Upper West	Daffiama-Bussie-Issa			
		Jirapa			
		Lambussie-Karni			
		Nadowli			
		Sissala West			
		Wa East			
	Volta	Adaklu			
		Agotime Ziope			
		Akatsi North			

		Ketu South			
		Krachi East			
		Nkwanta North			
		Nkwanta South			
		North Tongu			
	Western	Aowin			
		Bia West			
		Bodi			
		Juabeso			
		Nzema East			
		Prestea Huni Valley			
		Sefwi Akontombra			
		Suaman			
		Wasa Amenfi East			
		Wasa Amenfi West			
		Wassa East			
Institutional Data					
Parent (Ghana Secondary Education Improvement Project - P145741)					
Practice Area (Lead)					
Education					
Contributing Practice Areas					
Not applicable					
Additional Financing for the Secondary Education Improvement Project Additional Financing - P163628)					
Practice Area (Lead)					
Education					
Contributing Practice Areas					
Not applicable.					
Consultants (Will be disclosed in the Monthly Operational Summary)					
Consultants Required? Consulting services to be determined					

I. Introduction

1. This Project Paper seeks the approval of the Executive Directors to provide an additional financing (AF) credit in the amount of SDR 28.9 million (US\$40 million equivalent) from IDA to the Republic of Ghana for the Secondary Education Improvement Project (SEIP) (P145741) and to restructure the parent project. The SEIP is funded by an IDA

Credit in the amount of SDR 101 million (US\$156 million equivalent). The SEIP was approved on May 20, 2014, signed on July 30, 2014, and declared effective on October 3, 2014.

2. The proposed AF (P163628) would cover the costs associated with scaled-up activities to enhance the impact of a well-performing project. The AF would extend project coverage to additional low-performing secondary schools in the SEIP-targeted districts¹ with the aim of further increasing equitable access to and improving the quality of teaching and learning at the secondary level. Funds would also be provided to cover the incremental management costs and technical assistance (TA) activities associated with the expansion of activities under the AF and the extension of the closing date of the parent project from November 30, 2019 to November 30, 2021. The AF would help to achieve more fully the overall Project Development Objective (PDO)—to increase access to senior secondary education in underserved districts and improve quality in low-performing senior high schools (SHSs) in Ghana. As with the original project, the proposed AF design is well aligned with the National Education Strategic Plan (2016–2030) and the Ghana Country Partnership Strategy (CPS-Report number 76369) (2013–2018). The AF aims to continue efforts to improve competitiveness and job creation by increasing opportunities to build human capital through post-basic education- one of the key pillars (Pillar 2) of the CPS.

3. Specifically, the proposed AF will provide support to implement activities under Components 1 and 2. Under Component 1, the AF would support Results-based Financing (RBF) for achievement of the following results:

- (a) Increased utilized seats in existing low-performing schools (through additional rehabilitation/expansion in selected schools and quality packages);
- (b) Increased enrollment in beneficiary SHSs in targeted districts/schools for students from low-income families, especially girls;
- (c) Annual publication of school performance report/school mapping, online and in print, to improve data management, monitoring, and information dissemination;
- (d) 125 schools continue to receive school performance partnership (SPP) grants for an additional 2 years; about another 107² schools receive SPP grants for 3 years; and
- (e) Improved learning outcomes in selected SHSs measured through increased number of information and communication technology (ICT) packages implemented in beneficiary schools; increased numbers of teachers participating

¹ Project districts were selected based on criteria related to the demand for senior secondary school places, district poverty index, and the size of the school population. The bottom 100 districts (out of 216 total districts in the country) were selected and schools within these districts were then identified based on their standardized assessment scores and facilities assessment. The ranking of districts can be found in the Project Implementation Manual (PIM).

² About 107 schools, as the exact number is yet to be determined.

in mathematics and science training; and increased percentage of West Africa Senior Secondary Certificate Examination (WASSCE) achievement of 6 credits.

4. Under Component 2, the AF will support activities related to management, research, and monitoring and evaluation (M&E) including the following:

- (a) Incremental operating costs associated with scale-up and extended closing date;
- (b) Increased capacity building for policy analysis, school leadership and management, procurement and financial management;
- (c) Independent verification of results; and
- (d) Research and diagnostic activities to support analysis on education policies.

5. A restructuring of the parent project is also requested to (a) extend the project closing date to November 30, 2021, to align with the closing date of the proposed AF; and (b) introduce revised wording to several of the disbursement-linked results (DLRs).

II. Background and Rationale for Additional Financing

A. Country Context

6. **Ghana, located on the west coast of Africa, has an estimated population of 28.3 million people.**³ Ghana has achieved sound economic growth during the past two decades that has translated into significant poverty reduction. Over the last 20 years, the Ghanaian economy has grown more quickly than many other Sub-Saharan African countries, and the national poverty rate declined from 52.7 percent to 21.4 percent, between 1991 and 2012. By 2012, the gross national income per capita had reached US\$1,940, reflecting Ghana's status as a lower-middle-income country. In recent years, however, a combination of energy rationing, low commodity prices, rising inflation, and expenditure-side fiscal consolidation have inhibited economic activity slowing annual gross domestic product (GDP) growth to an estimated 3.6 percent in 2016. Further, significant geographic disparities exist in access to economic and social, opportunities, mainly between the poorer three regions in the north and the rest of the country.

7. **Improvements have been observed on key human development outcomes with Ghana ranking 139 out of 188 countries on the 2015 United Nations Development Programme Human Development Index.** By 2015, Ghana had attained Millennium Development Goals (MDGs) such as halving extreme poverty (MDG 1A), halving the proportion of people without access to safe drinking water (MDG 7B), universal primary education (MDG 2A), and gender parity in primary school (MDG 3). Ghana had also made substantial progress in reducing HIV prevalence (MDG 6C), increasing access to ICT (MDG 8F) and reducing the proportion of people suffering from hunger (MDG 1A).⁴ The primary

³ Ghana Statistical Service Data Production Unit, September 2016.

⁴ National Development Planning Commission and United Nations Development Programme. Ghana's MDGs Biennial Report, September 2015.

completion rate is 112 percent (as a percentage of the relevant age group in 2012/13). To accelerate progress toward achievement of Sustainable Development Goal 4 (SDG 4) on quality education to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, the Government, through the Ministry of Education (MOE) and Ghana Education Service (GES), has advanced education policy reforms under the Education Strategic Plan (ESP 2010–2020) and is currently finalizing the revised National Education Strategic Plan (2016–2030).

8. The general elections held in December 2016 led to another peaceful transition of political power from one administration to another. Key among the priority areas of the new administration is to promote universal access to basic and secondary education. At the same time, the new Government has inherited a large fiscal deficit, high inflation, and weak economic growth which may limit its ability to implement the planned reforms.

B. Sector Context

9. Ghana has made significant commitments to the education sector since 2000, cutting across basic education (kindergarten, primary, and lower secondary), secondary education,⁵ skills and technology, and tertiary education. Ghana has achieved near universal access to primary education and enrollment gains have been substantial, even in some of the most remote regions of the country, such as deprived districts in the Northern, Upper East, and Upper West regions. The net enrollment rate (NER) in deprived districts (93.5 percent in the 2014/2015) was slightly higher than the national NER for Ghana’s primary schools of 91.0 percent. Improvements in enrollment are reflected in completion rates, which in 2015/2016 was 113 percent at kindergarten, 112 percent at primary, 76 percent at lower secondary, and 46 percent at upper secondary level.

10. Challenges persist with regard to expanding access to post-basic education, particularly for low-income families, especially in deprived districts. Ghana Demographic Health Survey data for 2014 reveal that among the 15–18 years’ age cohort, for every 100 children, 96 enter primary school and 16 transition to Senior High School (SHS) compared to the poorest quintile where 90 out of 100 children enter primary school and only four actually transition to SHS. Currently, a large number of adults have not attended any school—with the rates varying significantly by gender and regions. Two-thirds of women and nearly one-half of men have no education in the Northern region as compared to 8.3 percent of women and 2.9 percent of men in Greater Accra. While gender parity has been achieved at the primary level, at higher levels of education, girls’ participation drops off significantly. Gender inequity in education access and completion is linked to sociocultural factors including early marriage, teenage pregnancies, high opportunity cost of education, high costs associated with secondary education, as well as the availability of and distance to quality SHSs.

Table 1. SHS Enrollment Statistics

Indicators	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
GER (%)	36.5	37.1	36.8	43.9	45.6	49.6

⁵ Reference to secondary education refers to higher secondary and under the SEIP it encompasses SHS.

NER (%)	24.3	23.6	23.6	21.8	22.5	25.2
Enrollment	728,076	758,468	842,587	750,706	804,974	851,312
Enrollment (correct age)	486,237 ^b	483,161 ^b	540,025 ^b	372,226 ^a	397,604 ^a	432,780 ^a
Transition rate from JHS3 to SHS1 ^c	57	51	61	68	68	67
Completion rate (%)	33	34	31	40	44	46
Private participation (%)	8.9	8.8	8.5	8.8	7.9	7.5

Source: Ghana MOE Education Sector Performance Report 2016.

Note: a. Correct age = 15–17 years b. Correct age = 15–18 years c. This indicator uses the enrollment in JHS3 from the previous academic year

GER = Gross Enrollment Rate; NER = Net Enrollment Rate; JHS = Junior High School

11. **With access to primary education becoming near universal in Ghana, new priorities are emerging at the post-basic level where the demand for secondary education is fast increasing, but the supply of SHSs has not kept pace.** Ghana's lower-middle-income status will also require more secondary level graduates with the relevant skills to continue their education and/or to enter the labor market, hence investing in secondary education will improve the human capital of the country, and also improve long-term competitiveness, access jobs, and improve people's lives and incomes. During the last decade, senior secondary education⁶ in Ghana has undergone significant changes driven by increasing demand, diversifying supply, changing structure (from four-year to three-year programs) and fast-changing financial/budgeting conditions. In 2015/16, the GER and NER at the senior secondary level were 49.6 percent and 25.2 percent, respectively (see table 1). The increased demand for SHS education has been fueled by the growing portion of the population coming out of poverty, completing universal basic education, and moving to urban areas and away from agriculture in search of wage employment. There are currently 872 public and private SHSs enrolling about 851,000 students in 2015/16.⁷ The pupil-to-trained-teacher ratio in general SHSs is 24:1, and 86 percent of SHS teachers are trained.

Table 2. SHS Enrollment and Expenditure (in GHS)

	2007	2008	2009	2010 ^a	2011 ^a	2012 ^a	2013	2014	2015
JHS public enrollment	1,015,489	1,064,088	1,075,035	1,100,671	1,122,621	1,157,827	1,178,344	1,240,416	1,254,370
SHS public enrollment	393,995	441,324	479,296	663,500	692,328	770,925	684,388	741,052	787,861
SHS expenditure						1,057 million	1,152 million	1,467 million	1,713 million

Source: Ghana MOE Education Management Information System, 2016.

Note: a. During these years, the SHS program was 4 years (instead of 3). The years refer to the start of the academic year (that is, 2015 refers to the 2015/16 academic year).

12. **With respect to facilities and supplies, there are challenges.** The ratio of core textbooks per student is less than one, and approximately 13 percent of public SHS

⁶ Secondary education in Ghana (SHS) refers to higher secondary covering three-year programs of general arts and general science, agriculture science as well as business, technical, and vocational courses in SHS.

⁷ 2016/17 data are not yet available but projections used for the costing of the free SHS policy estimate approximately 868,000 students enrolled in public SHSs in 2016/17 compared to 787,900 in 2015/16 and a further 41,500 projected enrollments for public technical and vocational Institutions (TVIs).

classrooms require major repairs. There remain inequities in the demand for SHSs because half of the youth typically either do not have adequate qualifications to enter SHS or cannot afford to move or commute to the schools where they are placed by the Computerized School Selection and Placement System (CSSPS).⁸ A large portion of students do not complete basic education and about one-third of those taking the Basic Education Certificate Examination (BECE) do not enter SHS having completed JHS. Those coming from the poorest 20 percent of households, the most deprived districts, and/or from rural areas are about five to six times less likely to access SHS.

13. Measures to improve access to and quality of secondary education. The Government has implemented measures to improve BECE results in deprived districts, subsidize needy students, especially those from northern and other hard-to-reach areas through means-tested support to boarding students and subsidized transport for day students living within 20 km of schools. The Government has been expanding SHS access by building new schools and rehabilitating old ones. The Government has recently completed 44 out of 124 planned new SHSs (including 13 out of 23 new SHSs under the SEIP). The construction of the remaining 80 new SHSs are at various stages of completion. When completed, these new SHSs will add at least 15 percent more schools to the total number of public SHSs.

14. In early 2017, to further increase access to SHS, the Government committed to providing higher secondary and Technical and Vocational Institutes⁹ (TVI) programs free of all charges (tuition in all Ghanaian public schools was already free). The new free SHS policy will cover costs currently borne by families such as admission and examination registration fee, library and laboratory charges, textbooks and exercise books, teaching and learning materials, school uniforms, teacher incentive portion of Parent Teacher Association (PTA) dues, other costs, and one meal for day students. According to the new free SHS policy, the Government will absorb these costs and also subsidize the schools for the lost revenues they would have collected from families. Board and meals for boarding students are already subsidized by the Government and all meals for boarding students will be included under the free SHS policy. The policy will commence in 2017/2018 by covering all successfully admitted first-year SHS students while the second- and third-year students will continue to benefit from existing subsidies.

15. The Government's goal of universal access to upper secondary education is well justified. There is evidence from Ghana and globally that higher secondary education is positively associated with improved employment outcomes, earnings, and health, fewer early marriages, lower rates of teenage pregnancy, and better child health outcomes. The impact of participation/completion of SHSs is particularly significant for girls. In Ghana, the Government has been providing targeted scholarships to some students, especially to girls and students in need. Research shows that students who receive scholarships have improved learning outcomes, improved access to tertiary education, and improved incomes and labor

⁸ During the last year of JHS, students submit a ranked list of up to four secondary schools that they would like to attend. The CSSPS uses this ranking, together with their performance on the BECE, to place students in SHSs.

⁹ TVIs are at secondary level.

market outcomes, with the largest impact for girls.¹⁰ The new free SHS policy aims to increase equitable access to higher secondary education in Ghana.

16. While the Government’s policies are likely to increase access to upper secondary education, at the same time, it could lead to a decline in the quality of education provided, unless well-designed policies/interventions for quality improvement are also implemented. The new SHS policy will undoubtedly increase the demand for secondary education. Children from families who previously could not afford to pay for SHS will be more likely to pursue secondary education, further increasing needed budget and available seats in school. Preliminary projections, for 2017/2018, of general SHS enrollment is at nearly 950,000 students, up from an estimated 870,000 in 2016/2017. Thus, it is possible that more schools and classrooms will be needed, and more qualified teachers (particularly in mathematics and science) may have to be deployed to meet this increased demand. While access to SHSs will increase with the introduction of free SHSs, quality may be negatively affected if deliberate interventions are not introduced in parallel to improve quality and relevance of SHSs. The WASSCE results show that learning outcomes have been declining since 2012. Further, these results demonstrate significant regional disparities.¹¹ The WASSCE results also show that a small number of SHSs supply over 90 percent of those who are admitted to higher education while the rest of the SHSs produce between 60 percent and 90 percent of the fail rates at the examination. Since the high-quality SHSs will likely remain selective, the increases in access will mostly be in lower-quality SHSs and TVIs, and this could further exacerbate existing disparities between the elite institutions and the rest of the schools. Without sufficient resources to support the new SHS policy and targeted interventions to improve quality, inequities might increase and returns to higher secondary education might decline (through both quality and supply effects).

C. Rationale for Additional Financing

17. The primary rationale for the AF is to ensure greater impact of the SEIP activities in increasing access to and quality of SHSs. The proposed AF would provide support to over 100 additional schools, nearly doubling the number of schools to receive support under the SEIP. As such, the proposed AF will support the achievement of better learning outcomes among a greater number of students while continuing to support activities to increase enrollment in undersubscribed schools (for example, through bursaries [scholarships], performance reporting, rehabilitation/renovation, and ICT-based instruction). In light of the new government’s policy making SHS free for those who qualify to enroll, lessons can be drawn from the parent project on how to target supply expansion, strengthen school-level capacity, transform instruction methods, and influence school choice through consistent access to comprehensive school information. The AF will also help to expand the quality activities to ensure that the expected large numbers of new students entering SHS would receive an effective education to prepare for entering the labor market and/or advancing to tertiary education. The selection of project districts and schools (which were

¹⁰ Duflo, Esther, Pascaline Dupas, and Michael Kremer. 2017. *The Impact of Free Secondary Education: Experimental Evidence from Ghana*. <http://economics.mit.edu/files/12682>

¹¹ MOE Education Sector Performance Report 2016.

identified under the parent project) will contribute to the Government's equity objectives and to the broader aims for poverty reduction.

18. **AF was considered the preferred mechanism to increase support for the Government's SHS program** because the SEIP was approaching its midterm review and would benefit from scaled-up implementation to consolidate project results (particularly for increased attainment by low-income students and improved learning outcomes in beneficiary schools). Preparation of a new operation was considered as an alternative to AF. However, the efficiencies to be gained from working through the parent project design and implementation arrangements led to the decision to use AF. The proposed AF design expands and continues the activities supported under the parent project and its achievements to date. The proposed AF is timely as the Government prepares to implement the new free secondary education policy, with expectations that increased enrollment will require adequate supply of good quality SHSs to meet this demand. Few development partners are working in the post-basic education subsector; therefore, the World Bank continues to be the key partner in supporting secondary education in Ghana.

19. The following are the expected results of the AF:

Outcome Level

- Increase in transition rates from JHS3 to SHS1¹² in targeted districts;
- Increase in SHS educational attainment within the two poorest quintiles in targeted districts; and
- Increase in percentage of WASSCE achievement¹³ of six credits and above, within beneficiary schools.

Output Level

- Increase of 5,000 utilized seats in existing selected low-performing schools¹⁴ (through additional rehabilitation/expansion in selected schools and quality packages);

¹² Last year of basic education (JHS3) to the first year of SHS (SHS1).

¹³ WASSCE achievement refers to obtaining a minimum of six credits (three core and three electives) which is required for entry to tertiary institutions. Increase is measured against baseline collected for beneficiary schools.

¹⁴ There was an error in the original Results Framework PAD version citing an end target of 10,000, but this should have been 5,000, consistent with the DLR. The AF would add an additional 5,000 to bring the total to 10,000.

- 125 schools (selected using deprivation criteria) receive SPP grants for an additional two years. About another 107 schools receive SPP grants for three years;
- Increase in enrollment in beneficiary SHSs for students from low-income families, especially girls;
- Increase in the number of ICT packages¹⁵ implemented in beneficiary schools;
- Increase in numbers of teachers participating in mathematics and science training;
- Improved data management, monitoring and dissemination through school mapping; and
- Additional research (two analyses) conducted on education policies.

D. Performance of the Original Project

20. **The project is on track to achieve its PDO.** The latest Implementation Status and Results Report (December 2016) rated Progress towards achievement of the PDO and Implementation Progress Satisfactory. The first three years of results (disbursement-linked results – DLRs) have been met (Year 0–Year 2) and independently verified. All legal covenants are complied with and there are no outstanding audits. The evidence of progress against the PDO and intermediate results indicators is detailed in annex 1. Out of 18 DLI milestones to be achieved by midterm, 17 have been fully met. One Year 2 milestone is expected to be achieved by end-June 2017 (printing of the Annual School Performance Report). The original Credit amount is 86.3 percent disbursed (US\$120.5 million disbursed out of a total of US\$156 million).

21. **The SEIP has two components: Component 1 - Support to Increase Access with Equity and Quality in Senior High Schools and Component 2 - Management, Research, and Monitoring and Evaluation.** Component 1 uses an RBF approach (including DLIs) and has two pillars (or results areas). Pillar 1 (Results Area 1) focuses on expanding senior secondary places through the construction of approximately 23 new SHSs in underserved districts, rehabilitating and expanding existing low-performing SHSs, and supporting attainment of disadvantaged students (for example, through scholarships to students from low-income families, especially girls). Pillar 2 (Results Area 2) focuses on improving the quality of education in selected low-performing SHSs through (a) strengthened school management and accountability; (b) improved mathematics and science teaching and learning; (c) expanded ICT and Internet connectivity in schools; and (d) the introduction of SPPs.¹⁶ Component 2 finances TA, management, research, and M&E for effective project implementation and uses a traditional investment approach.

¹⁵ Education portal for teachers and students to access multiple online resources (curriculum modules and open source sites) to improve content knowledge.

¹⁶ SPPs include grants to SHSs for quality activities linked to achievement of improved teaching and learning.

22. **The SEIP was restructured on August 31, 2016 to amend the table on withdrawal of proceeds in the Financing Agreement.** The revision included the reallocation among the Eligible Expenditure Program (EEP) categories to merge the scheduled disbursement categories for the DLRs going forward into a single disbursement category and to eliminate any percentage requirements for advances or remaining payments so that all categories indicate 100 percent financing of eligible expenditures. Originally the Financing Agreement only allowed 50 percent advances with a dated time period for disbursement. The change gives greater flexibility for paying for results without limitation for the timing of specified advances.

Table 3. Progress Made Toward Achievement of Outcome Indicator Targets

Indicator	Baseline (2014)	Current End-of-project Target (November 2019)	Status (as of April 2017)
Increase in transition rates from JHS3 to SHS1 in targeted districts	39%	47%	43%
Increase in SHS educational attainment within two poorest quintiles in targeted districts	8.4%	15%	n.a.
WASSCE achievement of 6 credits and above within beneficiary schools	10.7% (11.6% male; 9.55% female)	15% (15.9% male; 14.3% female)	10.7% (12.6% male; 8.1% female)
Direct project beneficiaries (of which female)	0	276,970 (44%)	134,721 (46%)

23. **To date, the SEIP has made important progress toward achievement of its PDO (see table 3).** At the PDO-level, progress has been observed on one of the three PDO-level indicators (transition rate) and is on track to meet the end-of-project target. The PDO-level indicator on educational attainment will only be measured at project completion through a household survey. The PDO-level indicator on learning results as measured by WASSCE achievement could only be expected to show improvements with additional years of project implementation. The core indicator (number of direct project beneficiaries) is also on track to be fully achieved and all but one of the intermediate results indicators (completion rate) have met yearly targets to date.

24. **Implementation progress is on track, albeit four months delayed mainly because of the national elections held in December 2016.** The Government recently has met the DLRs for Year 2 which include the following achievements: (a) 80 percent construction works completed (achieved); (b) increase in enrollment in low-performing schools by 1,000 seats (achieved); (c) at least 4,000 SHS students receiving scholarships in project schools (achieved); (d) publication of updated school performance data for FY2015/16 online and in brochure (partially achieved); (e) SPPs for 104 schools signed and 80 received funding (achieved); and (f) ICT-based instruction rolled out in about 50 percent of targeted schools (achieved). The following section provides an overview of progress to date by component.

Component 1: Support to Increase Access with Equity and Quality in Senior High Schools

Pillar 1: Increase Access with Equity in senior secondary education in underserved districts

25. The construction of 23 new SHSs is 80 percent complete.¹⁷ Civil works began in July 2015 with completion originally scheduled for October 2016. Contracts for two technical and three vocational blocks planned under the project (as some schools offer technical/vocational programs), have not yet been awarded (because of current civil works overruns) and two contracts have been terminated owing to poor performance. As of April 2017, 13 of the 23 new schools have reported enrollment of 3,111 students (averaging 240 students per school) for the 2016/2017 academic year.

26. Performance of contractors for civil works currently underway has been inconsistent with delays attributed to a few poorly performing contractors and the non-payment of some contractors for work carried out over the last six months. An infrastructure technical review has been launched to verify the differences in quantities for the same items at various sites, quantities of additional items executed at sites, and calculations of fluctuations. The MOE has also requested the Ghana Statistical Service (GSS) to review its price indices from April 2016 onward to guard against overpayment to contractors. It will be critical that the Government completes the remaining 10 SHSs before the start of the next academic year in September, 2017, because further rewards for results will be dependent on increased utilized seats in these newly constructed SHSs. In addition, the Government has also invested in constructing over 33 new additional SHSs¹⁸ over the last two years that are now accepting students. The results on increased utilization of seats in newly constructed schools will continue to be rewarded through FY2018, however the AF will not support the DLI for seats in newly constructed schools given the significant support by the Government under its Community Day Secondary School Program to construct 124 new SHSs.

27. With regard to the rehabilitation and expansion of 50 existing low-performing schools, more than 95 percent of all rehabilitation work has been completed (with one contract terminated for poor performance). Most of the upgraded and rehabilitated classrooms were functional by September 2016 (at the beginning of the 2016/2017 academic year). The facilities upgrade contributed to an increase in enrollment by 5,889 in the 125 schools, exceeding the results target for this year.

28. In addition to the above, the parent project has provided 5,398 (2,074 in Year 1; 3,324 in Year 2) of the planned 10,000 scholarships to students from low-income families (61 percent of which were for girls) also exceeding the yearly targets.

¹⁷ These new schools are located in underserved communities and include key infrastructure such as classrooms, computer and science laboratories, libraries, administrative space, toilets for students and staff, headmaster bungalow, teacher housing, multipurpose canteen building, gate house and external works (including access roads, utility connections, water, drainage, and so on).

¹⁸ The scope of the Government program is the construction of 124 new SHSs including the 23 new constructions under the SEIP. In all, 13 new SHSs and 33 new SHSs have been completed under the SEIP and the Government budget respectively, bringing the total completed to 46 new SHSs out of 124 planned.

Pillar 2: Improve Quality in low-performing Senior High Schools:

29. All 125 SHSs have submitted their School Partnership Performance Plans (SPPPs) and 104 have been reviewed, approved, signed, and the initial grant funds disbursed to 80 schools. The SPPs provide a mutual accountability mechanism for incentivizing SHS quality improvement activities as enrollment increases through the expansion of infrastructure and scholarships. The SPPs provide non-salary resources to schools to implement activities to improve quality of SHS teaching and learning. The funding also covers some of the costs of equipment and training of science and mathematics teachers. Two cohorts of a total of 1,050 science and mathematics teachers have received training (with a focus on challenging topics in core mathematics and science subjects) surpassing the end-of-project target. The training aims to address the challenges of weak teacher content knowledge and limited student-centered teaching methodologies. The parent project is also funding school leadership training in an effort to improve teaching, coaching, school management, and teacher assessment. Additional staffing audits and resource materials are being provided to address these areas. New teaching methods are being explored, including potential participation in the Math and Science for Sub-Saharan Africa (MS4SSA)—a regional initiative to introduce scripted lesson plans with embedded classroom assessment techniques. A consulting firm is providing TA to strengthen the in-service training modules for mathematics and science teachers. An impact evaluation is under way to assess the impact of the science and mathematics training.

30. Electronic content has been developed for the i-campus system (teaching and learning portal through i-box technology) with 200 modules in core subjects completed for SHS1. SHS2 content development is completed and work is under way on SHS3 content. The i-boxes deliver pre-prepared video lessons, student exercises, and content assessment to SHS students and teachers. The i-boxes have been rolled out to the initial 70 schools following i-box utilization training. An impact evaluation is underway to measure the impact of the i-box, and the remaining schools will therefore receive the i-box next academic year in September 2017.

Component 2: Management, Research, and Monitoring and Evaluation

31. The Government team has hired two independent verification firms (one for civil works and one for quality outcomes) to annually validate and verify project results. Baseline data for the impact evaluations to test the impact of the i-box package and to assess the extent to which follow-up science and mathematics teacher training has an impact on student learning has been collected. The impact evaluation on the i-box will measure the functionality, use, and cost-effectiveness of the i-box and determine its impact on learning; the impact evaluation on science and mathematics training will assess the extent to which follow-up science and mathematics teacher training has had an impact on educational outcomes. In addition, progress is being made in identifying the research agenda for secondary education. Recently, the research team hired an agency based at the University of Cape Coast to help define the research agenda. A report which includes the work plan and timeline for carrying out relevant studies has been submitted. The team has also set up a research database and the project is supporting annual Education Research Evidence Summits (the first of which took place on March 28–29, 2017) which bring researchers and the Government together to learn about current evidence on education policy. All SHSs (public and private) have been mapped and a website portal has been established to make information on SHSs available online

(www.ghanaschoolsinfo.org) for all stakeholders. The portal is being further enhanced and expanded to include scholarship information, M&E, and academic performance tracking, and a digest is being printed for wider dissemination. Under the project, there has been adequate M&E of project indicators, excellent tracking of DLRs as well as in-depth monitoring reports on implementation progress of the various components and semiannual project implementation status reports.

32. Key lessons learned through the implementation of the parent project. The key lessons include: (a) focusing on results and outcomes can expedite project implementation, strengthen country systems, and allow for some flexibility in implementation planning; (b) reducing the focus on inputs can encourage costs savings; (c) results focus allows for greater diversity of interventions, some with little cost implications (for example, visits to JHSs to sensitize communities about new SHSs available for potential students); (d) transparent targeting criteria discourages political influence and encourages reliance on data for decision making; (e) technology innovations are only useful if they are well understood and functional in challenging environments; (f) an effective communications strategy is essential; and (g) use of country systems builds ownership and capacity, but there is room for improvement (for example, management of infrastructure contracts, i-box roll out limitations and methodology for teacher training). The results approach has also experienced challenges within a fiscally constrained environment—leading to an overreliance on project funds for program implementation. While the learning curve for RBF was steep, the current implementing agency teams are now knowledgeable about the instrument and advocate for its role in expediting development outcomes.

Implementation Arrangements

33. Implementation arrangements of the proposed AF will be the same as those used under the parent project, mainstreamed within the government agencies. The MOE/GES will continue to take the lead as implementation agency, with responsibilities for the day-to-day administration, coordination, and M&E of SEIP activities. Oversight of the SEIP rests with the MOE, with the GES providing their mandated implementation role for service delivery. Continued support to the Technical Implementation Committee (TIC), through the Project Civil Works and Project Quality and Outcomes Team, will be necessary. The Chief Director of the MOE, who reports to the Minister for Education, leads the technical team by chairing the TIC which is responsible for the day-to-day project implementation. The GES oversees all activities related to senior secondary institutional leadership and teacher training, preparation of SPPs, resourcing of schools for quality improvements, improvement of senior secondary school programs, ICT interventions, and M&E. These teams have clear terms of references detailing their responsibilities as spelled out in the SEIP Project Implementation Manual (PIM) that has been published and widely disseminated to project implementers. A Project Steering Committee will continue to provide oversight and guidance to facilitate inter-division and inter-sectoral coordination on implementation. The continued arrangements would include extension of a project coordinator, procurement officer, and technical consultants including safeguards consultant as detailed in the PIM. A revised PIM will be available by project effectiveness to include updates, the expanded scope of the SEIP and revised result targets. The revised PIM will be published on the MOE and GES websites and will be disseminated to beneficiary schools, including the additional SHSs that will benefit under the AF.

Monitoring and Evaluation

34. The MOE and GES will continue to be responsible for coordinating and overseeing all M&E activities. The current framework builds on established systems for data collection and analysis by embedding monitoring and reporting in the offices responsible for each of the results areas. Data sources include the Education Management Information System, Ghana Living Standards Survey (GLSS), Annual WASSCE results, and the newly operational school mapping portal (e-Adido). Consolidated M&E reports are produced by the MOE and GES twice per year and verified by independent third-party agencies responsible for assessing whether results have been achieved. In addition to the core M&E reports, a number of analytical studies will be undertaken under Component 2 of the project. The upcoming midterm review scheduled for September 2017 will include independent in-depth fiduciary review, procurement review, safeguards audit, technical audit of civil works, and an analysis of SPPs/grants.

III. Proposed Changes

Summary of Proposed Changes	
An additional US\$40 million would support the scale-up of activities for both Component 1 and 2. Specifically, the AF would support additional low-performing schools in the 100 districts (targeted under the parent project) as well as 23 newly constructed schools by providing bursaries (formerly scholarships) for needy students, improving facilities in approximately 75 schools, and rolling out activities to improve the quality of teaching and learning in all beneficiary schools. The proposed AF will also cover (through Component 2) incremental costs related to project management, capacity building, and supervision of the scale-up.	
Proposed changes to the parent project will include revisions to: (a) the Results Framework; (b) the original credit closing date; (c) disbursement estimates; (d) components and costs; (e) implementation schedule; and (f) wording of DLR targets (DLI/DLR table).	
Additional details on the proposed changes are provided in annex 1 (Results Framework) and annex 2 (DLI tables).	
Change in Implementing Agency	Yes [] No [X]
Change in Project's Development Objectives	Yes [] No [X]
Change in Results Framework	Yes [X] No []
Change in Safeguard Policies Triggered	Yes [] No [X]
Change of EA category	Yes [] No [X]
Other Changes to Safeguards	Yes [] No [X]
Change in Legal Covenants	Yes [] No [X]
Change in Loan Closing Date(s)	Yes [X] No []
Cancellations Proposed	Yes [] No [X]
Change in Disbursement Arrangements	Yes [] No [X]
Reallocation between Disbursement Categories	Yes [] No [X]

Change in Disbursement Estimates	Yes [X] No []					
Change to Components and Cost	Yes [X] No []					
Change in Institutional Arrangements	Yes [] No [X]					
Change in Financial Management	Yes [] No [X]					
Change in Procurement	Yes [] No [X]					
Change in Implementation Schedule	Yes [X] No []					
Other Change(s)	Yes [] No [X]					
Development Objective/Results						
Project's Development Objectives						
Original PDO						
The PDO is to increase access to senior secondary education in underserved districts and improve quality in low-performing senior high schools in Ghana.						
Change in Results Framework						
Explanation:						
Annual and end-of-project targets for most of the indicators will be revised based on the increase in the number of beneficiary schools. The extension of the parent project for two years will also require revised end-line targets to correspond to the scale-up of interventions. In line with the recent policy on corporate results indicators and citizen engagement, two new indicators have been added to track the number of students benefitting from direct interventions to enhance learning and to track citizen engagement through the carrying out of a survey on project beneficiaries. The indicator on number of teachers trained under the project is already an intermediate results indicator being monitored in the Results Framework 'number of teachers participating in training to upgrade or acquire new skills in mathematics or science.' See annex 1 for revised Results Framework.						
Compliance						
Covenants - Additional Financing (Secondary Education Improvement Project Additional Financing - P163628)						
Source of Funds	Finance Agreement Reference	Description of Covenants	Date Due	Recurrent	Frequency	Action
IDA	Schedule 2, Section I. C. 2. (a)	The Recipient shall cause the Independent Verifiers to furnish to the Association every calendar semester, starting six months after the Effective Date, regular reports ("EEP Spending Reports") prepared		X	SemiAnnually	NEW

		in accordance with the provisions of the Project Implementation Manual.				
IDA	Schedule 2, Section I, C.1(a)	The recipient shall, by no later than 3 months after the effective date, appoint external M&E experts (independent verifiers) to act as third- party verifiers of the proper fulfillment of the DLIs and DLRs set forth in Schedule 4 in the Financing Agreement	04-Feb-2018	<input type="checkbox"/>		NE W

Conditions

Source Of Fund	Name	Type
IDA	Project Implementation Manual	Effectiveness

Description of Condition

Recipient has updated the Project Implementation Manual in form and substance satisfactory to the Association.

Source Of Fund	Name	Type
IDA	Withdrawal Condition 1	Disbursement

Description of Condition

No withdrawal shall be made for payments prior to the date of the Financing Agreement.

Source Of Fund	Name	Type
IDA	Withdrawal Condition 2	Disbursement

Description of Condition

No withdrawal shall be made for eligible expenditures under Category 2 unless and until the amount of the financing allocated to Category 2 of the table set forth in Section IV.A.1 Schedule 2 to the Original Financing Agreement has been fully utilized and disbursed.

Source Of Fund	Name	Type
IDA	Withdrawal Condition 3	Disbursement

Description of Condition

No withdrawal shall be made for Category 1 with respect to each DLI in the table in Schedule 4 of the Financing Agreement until the Recipient through MoE furnishes to the Association: (i) the

applicable EEP Spending Report and the verification of the achievement of the DLIs for the respective Year as set out in Schedule 4 the Financing Agreement; and (ii) evidence satisfactory to the Association as defined in the PIM that payment for the EEP under the Sector Budget Lines in the Annex to Schedule 2 have been made by the Recipient in accordance with its applicable laws and regulations.		
Source Of Fund	Name	Type
IDA	Withdrawal Condition 4	Disbursement
Description of Condition		
The Association may restrict withdrawals if it determines, based on evidence referred to in Schedule 2, Section IV. B.1. (c) of the Financing Agreement that: (i) the DLI targets as set out in Schedule 4 to this Agreement, are not met or partially met; or (ii) at any time, any portion of the amounts disbursed by the Recipient under Category 1 was made for expenditures that are not eligible under the EEP, the Recipient shall promptly refund any such amount to the Association as the Association shall specify by notice to the Recipient.		
Source Of Fund	Name	Type
IDA	Withdrawal Condition 5	Disbursement
Description of Condition		
Without limitation to the provisions of Section IV.B.1. (d) (i), any amount of the Credit withheld pursuant to said paragraph may be cancelled or reallocated by the Association in consultation with the Recipient's Ministry of Finance, and any readjustment to the amount assigned to each DLI/DLR linked to Category 1 shall be made with the agreement of the Recipient's Ministry of Finance.		
Source Of Fund	Name	Type
IDA	Withdrawal Condition 6	Disbursement
Description of Condition		
Upon the Recipient's request, the Association may by notice to the Recipient, adjust from time to time the DLR amounts and targets set forth in the Schedule 4 to the Financing Agreement for specific DLIs/DLRs.		
Risk		
Risk Category	Rating (H, S, M, L)	
1. Political and Governance	Substantial	
2. Macroeconomic	Substantial	
3. Sector Strategies and Policies	Substantial	
4. Technical Design of Project or Program	Moderate	
5. Institutional Capacity for Implementation and Sustainability	Substantial	
6. Fiduciary	Moderate	
7. Environment and Social	Moderate	
8. Stakeholders	Moderate	
OVERALL	Substantial	

Finance							
Loan Closing Date - Additional Financing (Secondary Education Improvement Project Additional Financing - P163628)							
Source of Funds			Proposed Additional Financing Loan Closing Date				
International Development Association (IDA)			30-Nov-2021				
Loan Closing Date(s) - Parent (Ghana Secondary Education Improvement Project - P145741)							
Explanation: The parent project will be extended to close at the same time as the proposed AF. The additional two years of implementation of the parent project would help to ensure that the DLIs as revised, would be fully met. The proposed AF widens the scope of the parent project to further increase equitable access and to improve the quality of education in beneficiary districts/schools.							
Ln/Cr/TF	Status	Original Closing Date	Current Closing Date	Proposed Closing Date	Previous Closing Date(s)		
IDA-54520	Effective	30-Nov-2019	30-Nov-2019	30-Nov-2021			
Change in Disbursement Estimates (including all sources of Financing)							
Explanation:							
Disbursement estimate changes reflect the additional funding of US\$40 million (and two additional years of project implementation).							
Expected Disbursements (in US\$, million) (including all sources of financing)							
Fiscal Year	2015	2016	2017	2018	2019	2020	2021
Original	31.94	20.92	29.84	29.84	29.84	13.62	
Additional Financing				4.94	9.88	13.35	11.83
Cumulative	31.94	52.86	82.70	117.48	157.2	184.17	196.0
Allocations - Additional Financing (Secondary Education Improvement Project Additional Financing - P163628) in US\$ million							
Source of Fund	Currency	Category of Expenditure	Allocation		Disbursement %(Type Total)		
			Proposed		Proposed		
IDA	US\$, millions	Component 1: Results Based Expenditure Program Eligible Expenditure program	37.00		100%		

IDA	US\$, millions	Component 2: Management, Research, and Monitoring and Evaluation (goods, consulting services, non-consulting services, training, operational costs)	3.00	100%
		Total:	40.00	

Components

Change to Components and Cost

Explanation:

The proposed AF will not alter the design of the parent project but instead provide an opportunity to expand and strengthen key efforts to additional schools, particularly those related to improving access to and quality of low-performing secondary schools primarily through incentives to Component 1 results-based disbursements.

The AF would increase the number of beneficiary schools within the selected districts. Under the SEIP, districts were ranked based on the following criteria: (a) demand for senior secondary school places (defined by the ratio of JHS3 pupils in Year x to SHS1 pupils in Year x+1 for the same district); (b) district poverty index; and (c) size of school population. The lowest-ranking 100 districts (out of all 216 districts in Ghana) were then selected to benefit from the SEIP. Out of a total of approximately 200 SHSs, up to 125 SHSs based on WASSCE achievement and a facilities assessment were then identified within these 100 districts. Out of the 125 SHSs, 50 benefitted from rehabilitation and expansion and all 125 benefitted from quality interventions.

The proposed AF would cover most of the remaining public schools in the selected 100 districts (approximately 71 SHSs) following the original criteria on WASSCE performance as well as ensuring boarding-only schools are excluded. In addition, the expansion includes new schools recently constructed under the parent project (23) and other new schools recently constructed by the Government enrolling students in the 100 districts (13). Therefore, the total number of additional schools to benefit under the AF is 107 SHSs. The expansion retains the transparent and poverty-targeted criteria and continues to focus efforts on the less endowed schools and districts across Ghana. In addition to the targeting achievement, the SEIP directs investment costs sorely needed to improve the quality of teaching and learning in the schools as more students enter the system.

Component 1: Support to Increase Access with Equity and Quality in Senior High Schools (Current allocation: US\$140.1 million; Total allocation with proposed AF: US\$177.1 million)

*Pillar 1: Increase Access with Equity in Senior Secondary Education in Underserved Districts
(Current allocation: US\$125.1 million; revised allocation with proposed AF: US\$139.92 million)*

The DLIs associated with this Pillar 1 (DLIs 2–4) aim to reward significant increases in the number of new seats utilized in the newly constructed schools as well as the existing low-performing schools. In addition, the increase in enrollment aimed to include more students from low-income families, especially girls. The activities expected to contribute to the achievement of these results (for example, facilities expansion for additional seats, improvements to existing schools, and scholarships (now bursaries) to students from low-income families) would be continued for the current beneficiary schools under the AF. The AF would not support the construction of new schools.

In an effort to promote greater access to SHS, the AF would support 84 additional beneficiary schools

in the targeted 100 districts (see description above), and 23 newly constructed schools completed under the parent project. New scholarships, now bursaries for needy students to cover private costs, would be rolled out for low-income students in beneficiary schools following the SEIP scholarship guidelines on selection criteria, monitoring, and reporting. The amount of the bursaries will reflect costs not being covered by the new free SHS policy. Facilities improvements based on a comprehensive needs assessment would be targeted to approximately 75 original SEIP schools that did not receive upgrading. Drawing on the experience with the first round of upgrading to 50 SHSs, the AF would support a more demand-driven approach to meeting infrastructure needs well aligned with the SPPPs to ensure strategic alignment with school priorities.

The AF, coupled with an extension of the period for implementation, would allow for the following (under Pillar 1): (a) the expansion of seats utilized in low-performing schools from an original target of 5,000 to 10,000; and (b) an increase in the number of students receiving scholarships (from the original target of 10,000 to 20,000). These indicators would be measured in the total beneficiary schools (125 + 107).

Pillar 2: Improve Quality in Low-performing SHS (Current allocation: US\$15 million; revised allocation with proposed AF: US\$37.23 million)

The DLIs associated with this pillar (DLIs 5–7) aim to reward school-level improvements in the quality of the teaching and learning offered in the low-performing SHSs. The DLIs include the annual publication of the School Performance Report capturing current data from the school mapping portal; the implementation of SPPs (SHS grants) in beneficiary schools; and improved learning outcomes as measured by the standardized WASSCE at the end of SHS.

The activities expected to contribute to the achievement of the quality DLIs include continued enhancements to the interactive school mapping portal, grants to SHSs through the SPPs, leadership training, intensive science and mathematics training and resources for teachers, and the rollout of an innovative mechanism for ICT-based instruction through the Ghana patented i-campus/i-box (Adido). All of these activities contribute to a ‘quality package’ for the SEIP schools. Under the AF, these quality packages would be extended to the additional beneficiary schools (107). Furthermore, the AF would also reward the increased number of teachers benefitting from mathematics and science training, with options to incorporate customized materials and lesson plans created through either the MS4SSA program; (science and mathematics training provided by the African Institute for Mathematical Sciences) or other teacher strengthening activities, and the expansion of the i-box technology, training, content development, and Internet connectivity for the additional schools. The AF will also include knowledge assessments for teachers to monitor the impact of the training investments. An ongoing impact evaluation would measure the impact of these different teacher strengthening interventions.

The AF, coupled with an extension of the period for implementation, would allow for the following (under Pillar 2): (a) annual publication of updated school performance data online and in print; (b) scaling up the number of SPPs from 125 to 232; (c) an increase in science and mathematics teachers trained from 836 to 2,000; (iv) ICT-based instruction from 125 schools to 232 schools; and (e) an increase in the percentage of students obtaining six credits and above WASSCE scores averaged in beneficiary schools.

Component 2: Management, Research, and Monitoring and Evaluation (Current allocation: US\$15.9 million; Total allocation with proposed AF: US\$18.9 million)

Under the AF, US\$3 million would be provided to support project management and supervision, specifically to cover costs related to TA for the MOE, GES and other key implementing agencies. Funding under the AF will be used to continue to sponsor key trainings, communication strategies, and safeguards screening. The funding would also support web-based school monitoring through the innovative school mapping portal and the subsequent enhancements being made to use this tool to

better monitor program activities. Independent verification firms would be supported to annually verify the DLRs. The research and diagnostic activities to support analysis on SHS policy and strategy will be particularly critical to scale up now that the Government has announced the implementation of free SHS in September 2017. The necessary data analysis and implementation assessments would be supported to help guide such a transformative agenda, especially in light of the structural nature of the education system (boarding versus day schools), fiscal constraints (limited non-salary education expenditures), and quality challenges (low learning outcomes at completion of basic education). The AF would also support more systematic procurement and financial management capacity at the school level to strengthen the implementation of the SPPPs and facilities upgrade. Operational costs of the SEIP associated with the scale-up and/or continuation of activities through the extended closing date would also be supported.

Development of strategic planning and policy analysis capacity. Under the SEIP, Component 2 aims to strengthen the capacities of the MOE for strategic planning and analysis. The AF would scale up support for planning and analysis activities; identify training needs; and further strengthen skills development for education management. Support will include professional development opportunities through short- and long-term training opportunities for selected qualified staff in the areas of the economics of education, policy analysis, and education planning.

Current Component Name	Proposed Component Name	Current Cost (US\$, millions)	Proposed Cost (US\$, millions)	Action
Support to Increase Access with Equity and Quality in Senior High Schools	Support to Increase Access with Equity and Quality in Senior High Schools	140.10	177.10	Revised
Management, Research, and Monitoring and Evaluation	Management, Research, and Monitoring and Evaluation	15.90	18.90	Revised
	Total:	156.00	196.00	

Financing of DLIs/Components Original Funding and Proposed AF (US\$ millions)

	Components and Results	Amount of Financing Allocated per DLI/Component	Type of Modification (PAD)	AF cost	Total Cost
1.	Support to Increase Access with Equity and Quality in Senior High School	140.10		37.00	177.10
	<i>Pillar 1: Increase Access with Equity in senior secondary education in underserved districts</i>				
DLI 1	Targeting of school expansion in underserved school districts	5.54	—	—	5.54

DLI 2	Increase in new seats for SHS students in underserved school districts	23.20	—	—	23.20
DLI 3	Increase in number of seats utilized in existing low-performing schools	23.20	Scale up	9.88	33.08
DLI 4	Increased enrollment in SHS in targeted districts and schools for students from low-income families, especially girls	23.20	Scale up	4.94	28.14
	<i>Pillar 2: Improve Quality in low-performing senior high schools</i>				
DLI 5	Annual publication of School Performance Report	18.56	Continue	4.94	23.5
DLI 6	School Performance Partnerships in beneficiary schools	23.20	Scale up	9.88	33.08
DLI 7	Improved learning outcomes in beneficiary SHS	23.20	Scale up	7.41	30.61
2.	Management, Research, and Monitoring and Evaluation	15.90		3.00	18.90
	Program management/operational costs/communications/verification/TA/training/research	15.90	Scale Up	3.00	18.90
	TOTAL	156.00		40.00	196.00

IV. Appraisal Summary

Economic and Financial Analysis

Explanation:

The economic analysis suggests that the proposed AF remains economically justified. The SHS system in Ghana has undergone rapid expansion from 700 SHSs in 2006 to 872 total SHSs in 2016 and 376,049 public SHS enrollments in 2005/06 to an estimated enrollment of 868,000 students in public schools in 2016/2017.

The private rates of return to secondary education in Ghana have also risen from 7.8 percent in 2005 to 8.8 percent in 2012. Within secondary education, returns are higher for females (11 percent) than males (6.5 percent). The returns to secondary education in Ghana are higher than the global average for secondary education (6.8 percent) but lower than the Sub-Saharan Africa average of 10.6 percent.¹⁹

The rationale for public investment in education is related to the high social, economic, and non-economic rates of return to education, in addition to the market imperfections that preclude the poor from reaping the private returns to education. Education is an investment that increases individuals'

¹⁹ Montenegro, Claudio E. and Harry Anthony Patrinos. 2014. "Comparable Estimates of Returns to Schooling Around the World." Policy Research Working Paper No. WPS 7020. Washington, DC: World Bank.

skills and makes more informed and socialized citizens. At the individual level, skills make individuals more productive and employable, extending their labor market participation over their lifetime, leading to higher earnings, and better quality of life. At the country level, education is associated with economic growth.

After two years of implementation, the DLI-based design of the project has shifted the focus of the Government toward results and empirical-based policy making. The AF would not alter the design of the SEIP but instead provide opportunities for expansion and strengthening of key efforts, particularly those related to improving the quality of education in low-performing secondary schools.

The support to the construction of 23 new schools and rehabilitation of 50 schools provided under the project is cost-effective. The unit costs of construction based on actual contract values are lower than the estimated costs at project design. The unit cost for new schools is US\$3.2 million compared to the estimate of US\$4.3 million and the unit cost for upgrades is US\$0.12 million compared to an estimated amount of US\$0.32 million. As of March 2017, 13 of the 23 new schools have reported enrollment of 3,111 students for the 2016/2017 academic year and 5,889 seats were created and utilized within low-performing beneficiary SHSs.

A study on the provision of scholarships to students from low-income families, especially girls under the project has found that scholarships have large significant impacts on completion rates and learning outcomes. A randomized control trial of this intervention found that recipients of the scholarship were 26 percentage points (55 percent) more likely to complete secondary school, obtained 1.26 more years of secondary education, scored an average of 0.15 standard deviations greater on a reading and mathematics test, and adopted more preventative health behavior. The project has provided 5,398 (2,074 in year 1; 3,324 in Year 2) of the 10,000 scholarships to students from low income families (61 percent of which were for girls).²⁰

The World Bank's involvement is expected to bring tangible value-added in several key domains. The World Bank's global knowledge, technical, and operational expertise will be critical in providing technical support and consensus building around system and institutional changes, which are expected to yield economic and social returns in the longer term. The World Bank's value added will continue to be significant under the AF. The World Bank has already brought substantial value added under the parent project by nudging a shift toward a results-based policy making and supporting innovative interventions such as school mapping and the i-box.

Furthermore, the World Bank has established itself as a trusted partner of the education sector and is well-positioned to provide technical support to the Government in the rollout of the free SHS policy. The policy will have significant impacts on the supply and demand of secondary education both within and outside the scope of this project and the World Bank is expected to play a key role in ensuring a quality-focused expansion of the sector.

A detailed economic analysis is presented in annex 3.

Technical Analysis

Explanation:

The AF supports the Government strategy to expand access to secondary education given the increasing demand for post-basic opportunities. generate more sophisticated skills to transform the

²⁰ Duflo, Esther; Pascaline Dupas, and Michael Kremer. 2017 *The Impact of Free Secondary Education: Experimental Evidence from Ghana*.

labor market and level the playing field to reduce disparities/inequities. The planned rollout of free SHS for first year students in September, 2017 also necessitates expediting an increase in the supply of schooling while ensuring that the lower-performing schools strengthen the quality of their learning environment. The design of the SEIP incentivizes results and payments are made based on the achievement of the annual targets agreed with the Government. The focus on outcomes encourages continuous policy dialogue and engagement. The AF would continue to further incentivize Government efforts to improve the quality of lower-performing schools, particularly those that service the poorer communities in Ghana. By almost doubling the number of schools benefitting from quality packages as well as some infrastructure expansion, the SEIP would deepen the impact in the communities that have not traditionally benefitted from post-basic education. As the new free SHS policy is implemented, the AF will help inform the decisions about how to allocate resources more effectively to balance access and quality objectives. With teachers at the center of school improvement efforts, the AF incentivizes the piloting of different teacher training methods such as customized materials under the MS4SSA initiative and/or teacher assessment and training conducted by the African Institute for Mathematical Sciences. The new bursaries would continue to encourage low-income students to enroll and stay in SHS by defraying private costs to families that may not be fully covered/subsidized by the new policy. Expanding the quality package to more schools will help quality improvements to keep pace with expansion and improve the reputation of schools to attract more students in the future.

Fiduciary Analysis

Explanation:

Financial management arrangements were assessed to (a) ascertain if the current SEIP arrangements are adequate to support the AF and (b) determine the level of compliance with the financial covenants by the current project. The assessments concluded that the financial management systems at both the MOE and GES are adequate and meet the minimum requirements as per World Bank Policy Operational Policy 10.00. The SEIP's financial management performance rating is Moderately Satisfactory and the risk rating is Moderate. The original project has complied with the financial covenants of submitting acceptable financial reports including audits. The auditors issued an unqualified opinion on the accounts, and issued a Management Letter to highlight some internal control weakness which are being addressed to minimize the risk of use of World Bank funds.

The MOE will be tasked with coordinating the activities of the various department and agencies. Within the MOE, the Director of Finance will be responsible for ensuring compliance with all fiduciary arrangements, while the Financial Controller of the GES will also be tasked with ensuring that throughout implementation, there are adequate financial management systems which can satisfactorily account for and report on the use of project funds. Disbursement under Component 1 provides for achievement of a total of five DLIs which will be measured and valued in monetary terms for each respective year through a set of identifiable and measurable DLRs totaling 15 to be achieved over the four-year period. These DLIs are considered significant indicators of performance that will influence behavioral and policy reforms required to achieve outcomes related to increasing equitable access to senior secondary education while improving the quality of SHS. Meeting the defined DLRs as identified in annex 2 and also in the Financing Agreement will constitute the primary basis for triggering credit disbursements under the Project's Eligible Expenditure Program (EEP). The total number of DLR's have been individually priced, and as such, the eligible disbursement amount will be the sum of the achieved DLRs multiplied by the unitary monetary value (price) according to the Disbursement Schedule.

The underlying principle will be to disburse, after project effectiveness, and based on a half-year forecast of the funding required to potentially achieve the set of DLRs in each year an advance to

the MOE. Subsequently on a half-yearly basis, the borrower will provide satisfactory documentary evidence including (a) acceptable interim financial reports (IFRs); (b) EEP spending reports; and (c) evidence of independent verification of the set of DLRs for that particular year which have been achieved. These reports will then form the basis of documenting for the advances made. Subsequent advances will be made based on the approval by the World Bank of the next six months forecast of expenditure.

Component 2 will be implemented under the principles of traditional IPF arrangements using the report-based disbursement arrangements. Under this approach, the allocated resources will be advanced to the GES's Designated Account on the basis of an approved six-monthly forecast of expenditures, and replenished quarterly for further periods of six months using IFRs prepared by the GES and or generated from the GIFMIS. The IFRs (including the 'procurement subject to prior reviews' and 'designated account reconciliation statement') will serve as the basis for requesting for advances and also for documentation. The initial disbursement will be based on the consolidated expenditure forecast for six months, subject to the World Bank's task team leader and Financial Management Specialist approval of the estimates. Subsequent replenishments of the Designated Account would be done quarterly based on the forecast of the net expenditures for the subsequent half-year period.

Procurement will be carried out, per the New Procurement Framework (NPF), in accordance with the (a) World Bank Procurement Regulations for IPF -Borrowers Procurement in Investment Project Financing Goods, Works, Non-Consulting and Consulting Services, dated July 2016; (b) the 'Guidelines on Preventing and Combating Fraud and Corruption in Projects financed by IBRD Loans and IDA Credits and Grants', dated October 15, 2006, revised in January 2011; and (c) the provisions stipulated in the Financing Agreement. The bid documents will be based on the Standard Procurement Document, recently enhanced with the Environment, Social Health and Safety sections.

Procurement implementation arrangements remain unchanged. The implementing agency will be the Ministry of Education (MOE), responsible for the project's coordination, procurement, contract management, financial management, and compliance with safeguards policies, in collaboration with the Ghana Education Service and other relevant agencies under the MOE.

The procurement capacity assessment, in accordance with OCSPR guidelines and Procurement Risk Assessment and Management System (P-RAMS), indicates that the procurement risk is Substantial for the project and the prior review thresholds have been set to reflect this rating. These thresholds are for the purposes of the initial procurement plan for the first 18 months. The thresholds will be revised periodically based on re-assessment of risks. All contracts not subject to prior review will be post-reviewed. Procurement post-reviews and technical audits will be carried out annually by the Bank Procurement Specialist and Technical Specialist or independent auditors and based on the findings of the reviews the prior review thresholds will be reviewed. The main risks identified are the following: (i) the use of the NPF; (ii) inadequate monitoring; (iii) weak contract management; (iv) delays in processing procurement and payments; (v) some political interference; and (vi) fraud and corruption. The proposed mitigation will include (i) WB to organize and deliver training session for GES and MOE, on the NPF during the appraisal and immediately after effectiveness, with hands-on support to the implementing agencies to ensure the proper use of the borrower regulations; and (ii) intensify training in procurement and contract management by the Bank

The Borrower prepared and the Bank cleared the Procurement Plan which covers the first 18 months of project implementation. The Procurement Plan will be updated in agreement with the World Bank Project team at least annually or, as required, to reflect the actual project implementation needs and improvement in institutional capacity. Systematic Tracking of Exchanges in Procurement (STEP)

will be the primary software or platform to be used to submit, review, and clear all Procurement Plans and prior review procurements. In preparing the Procurement Plan, at all times, the prior review and methods thresholds associated with the recommended/prevaling procurement risk rating are applicable.

Social Analysis

Explanation:

Building on the successes of its parent project, the proposed SEIP-AF aims to extend project coverage to additional low-performing secondary schools in the SEIP targeted districts to strengthen outcomes for increased equitable access and improved quality of teaching and learning. The AF will not incentivize new school construction (DLI 2 original SEIP) as this result will be mostly achieved by the time the AF becomes effective.

As it is with the parent project, the SEIP Additional Financing Project triggers Operational Policy 4.12 on Involuntary Resettlement. Significant land acquisition is not anticipated, however, some of the activities under Pillar 1, of Component 1 may lead to land take, change in land use, relocation, and/or restriction of access to sources of livelihoods.

Because the exact locations and the number of people to be affected are not known at this time, the borrower has updated the Resettlement Policy Framework (RPF) prepared for the parent project to cover the interventions and regions in which the proposed AF will be implemented. The RPF outlines measures to avoid and minimize resettlement as well as assist project-affected people in their effort to improve or at least restore their standards of living. The revised RPF was disclosed in-country and at the World Bank's Infoshop on May 27, 2017.

Under the parent project, the client prepared, consulted upon and implemented a Resettlement Action Plan, which was approved by the World Bank. The client is currently finalizing an Addendum to the Resettlement Action Plan.

Citizen engagement. The AF will build on the citizen engagement structure designed into the parent project so as to improve transparency, accountability, and participation. To this end, the project will continue to sensitize the public to the e-Adido school mapping portal where anyone can download the app and provide feedback, queries, photos, and comments on the SHS site. Communications activities have also focused on sensitizing communities located near the beneficiary schools to encourage enrollment. Grievance redress mechanisms have been established at all districts and hotlines have been set up. A Beneficiary Survey will be conducted at mid-term and again at end line to measure beneficiary satisfaction with the project by surveying school-level stakeholders and using their feedback to inform project implementation.

The proposed AF is expected to have a positive social impact as it will increase equitable access to quality education for pupils from low-income backgrounds.

Environmental Analysis

Explanation:

The AF would not change the Category 'B' rating because the environmental and social impacts associated with school rehabilitation and construction are expected to continue. The risks are not substantial as the Government has prepared an excellent Environmental and Social Management Framework (ESMF) that will be updated to cover the interventions and areas in which the proposed AF will be implemented. The MOE will be responsible for maintaining capacity for supervising and advising contractors throughout the lifetime of the project. The additional funds for project

management would also support third party audits and reporting to monitor safeguard compliance. The ESMF was updated and disclosed in-country and at the World Bank's InfoShop on May 27, 2017.

A Climate Risk and Disaster Screening was undertaken for the project covering climate and geophysical hazards at project location with ratings on a scale from insufficient understanding; not exposed or no potential impact or risk, slightly exposed or low potential impact or risk, moderately exposed or moderate potential impact or risk, and highly exposed or high potential impact or risk. The hazards identified included extreme temperature, drought, sea-level rise, and strong winds all of which present low potential impact or low risk. The hazard of extreme precipitation and flooding presents moderate potential impact or moderate risk. The overall climate risk under the project is Low. The Climate and Disaster Risk Screening Results Summary is included in the project files.

Risk

Explanation:

The overall risk rating for the AF remains Substantial as Ghana continues to experience significant fiscal challenges which could hamper achievement of the DLIs. The governance risks also remain Substantial as a new government takes the helm and attempts to roll out an ambitious free secondary education policy. The political administrative transition was smoothly attained in January, 2017. The governance risk of large construction is mitigated under the SEIP AF (there is no new construction under the AF), and the facilities improvement under Component 1 of the AF is selected based on transparent and objective criteria, however, governance risks are considered substantial because of frequent cost overruns on civil works and likely persistent teacher time on task issues in deprived areas (teacher time on task is not consistently monitored but is estimated to be low). The macroeconomic risk continues to be rated Substantial given the deteriorating macroeconomic conditions since 2012. Steadily rising public expenditures in the face of weak revenue mobilization has led to an increase in the fiscal deficit from 6.3 percent of GDP in 2015 to 8.7 percent of GDP in 2016 (Public Expenditure Review, 2017).

Implementation reliance on multiple institutions and agencies such as MOE, GES, and National Teaching Council (NTC) has not posed a problem as coordination has been ensured with the Technical Implementation Committee (TIC). However, the newly established NTC is not yet fully functional and the capacity to oversee teacher governance is currently not very strong. Therefore, the AF is designed to provide capacity strengthening of implementing institutions and agencies under Component 2. The Project Implementation Manual will be updated to further clarify the roles of implementing institutions and agencies. The plans to fully subsidize public and most of the private costs for SHS has not been fully costed or budgeted yet. The Government may not be able to readily afford the additional teachers, operational costs, and quality improvements anticipated over the next three to five years. The TA/research activities under Component 2 would support more in-depth modeling, costing and forecasting on the implementation of the free SHS policy. The risks related to Sector Strategies and Policies are rated Substantial as the Education Sector Plan and other national plans are currently being reviewed in line with the vision and policy directives of the new administration. While overall implementation risk remains Substantial, the design risk has been revised to moderate given the government's good experience implementing an RBF mechanism over the last two and half years.

V. World Bank Grievance Redress

35. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Annex 1: Results Framework

Project Development Objectives							
Original Project Development Objective - Parent:							
The PDO is to increase access to senior secondary education in underserved districts and improve quality in low-performing senior high schools in Ghana.							
Proposed Project Development Objective - Additional Financing (AF): same as above							
Results							
Core sector indicators are considered: Yes				Results reporting level: Project Level			
Project Development Objective Indicators							
Status	Indicator Name	Corporate	Unit of Measure		Baseline	Actual(Current)	End Target
Revised	Increase in transition rates from JHS3 to SHS1 in targeted districts	<input type="checkbox"/>	Percentage	Value	39.00	43.00	49.00
				Date	01-Oct-2014	31-Oct-2016	01-Nov-2021
				Comment			Original target was 47%.
Revised	Increase in SHS education attainment within the two poorest quintiles in targeted districts (disaggregated by gender)	<input type="checkbox"/>	Percentage	Value	8.40		15.00
				Date	01-Oct-2014		01-Nov-2021
				Comment		n.a.	Target date revised.
Revised	Increase in SHS educational attainment within the two poorest quintiles in targeted districts (male)	<input type="checkbox"/>	Percentage	Value	11.10		18.90
				Date	01-Oct-2014		01-Nov-2021
				Comment		n.a.	Change in target date
Revised	Increase in SHS educational attainment within the two poorest quintiles in targeted districts (female)	<input type="checkbox"/>	Percentage	Value	6.10		11.70
			Sub Type Breakdown	Date	01-Oct-2014		01-Nov-2021
				Comment		n.a.	Change in target date
Revised	Increase in WASSCE achievement of	<input type="checkbox"/>	Percentage	Value	10.70	10.70	15.00

	percentage of students obtaining 6 credits and above within beneficiary schools (disaggregated by gender)						
				Date	01-Oct-2014	01-Sep-2016	01-Nov-2021
				Comment		Male actual was 12.6% (an increase from 2015 when achievement was 8.6%).	Target not revised. Change in target date.
Revised	Increase in WASSCE achievement of percentage of students obtaining 6 credits and above within beneficiary schools- percentage female	<input type="checkbox"/>	Percentage	Value	9.50	8.10	14.30
			Sub Type	Date	26-Jan-2015	31-Mar-2017	01-Nov-2021
			Breakdown	Comment		This is an increase from 2015 (5.8%)	Target not revised. Change in target date.
Revised	Direct project beneficiaries	<input checked="" type="checkbox"/>	Number	Value	0.00	134,658.00	711,000.00
				Date	01-Oct-2014	29-Apr-2016	01-Nov-2021
				Comment			Original target was 276,970.
No Change	Female beneficiaries	<input type="checkbox"/>	Percentage	Value	0.00	45.80	44.10
			Sub Type				
			Supplemental				
Intermediate Results Indicators							
Status	Indicator Name	Corporate	Unit of Measure		Baseline	Actual(Current)	End Target
Revised	New (additional) SHS seats created and utilized by SHS students in targeted schools (cumulative)	<input type="checkbox"/>	Number	Value	0.00	3,111.00	15,000.00
				Date	01-Oct-2014	31-Mar-2017	01-Nov-2021
				Comment			Change in target date
Revised	Increase in seats created and utilized within low-performing beneficiary SHSs (cumulative)	<input type="checkbox"/>	Number	Value	0.00	5,889.00	10,000.00
				Date	01-Oct-2014	31-Mar-2017	01-Nov-2021

				Comment			
							Original target was 5,000
Revised	Scholarships/bursaries are distributed to low-income students in participating districts and schools (cumulative)	<input type="checkbox"/>	Number	Value	0.00	5,398.00	20,000.00
				Date	01-Oct-2014	31-Mar-2017	01-Nov-2021
				Comment			Original target was 10,000
Revised	Teachers participating in training to upgrade or acquire new skills in mathematics (cumulative)	<input checked="" type="checkbox"/>	Number	Value	0.00	350.00	730.00
				Date	01-Oct-2014	01-Dec-2016	01-Nov-2021
				Comment			Original target was 360
Revised	Teachers participating in training to upgrade or acquire new skills in science (cumulative)	<input checked="" type="checkbox"/>	Number	Value	0.00	700.00	1,470.00
			Sub Type	Date	01-Oct-2014	01-Dec-2016	01-Nov-2019
			Breakdown	Comment			original target was 500
Revised	Increase in completion rates in targeted schools (disaggregated by gender)	<input type="checkbox"/>	Percentage	Value	81.70	81.60	86.71
				Date	01-Dec-2015	29-Apr-2016	01-Nov-2021
				Comment			Original target was 85.71% and male was 85.8%
Revised	Increase in completion rates in targeted schools disaggregated by gender (female)	<input type="checkbox"/>	Percentage	Value	81.20	81.80	86.10
			Sub Type	Date	01-Dec-2015	29-Apr-2016	01-Nov-2021
			Breakdown	Comment			Original target was 85.1
Revised	Number of Performance Partnerships for Learning with beneficiary SHSs established (cumulative)	<input type="checkbox"/>	Number	Value	0.00	100.00	232.00
				Date	01-Oct-2014	31-Mar-2017	01-Nov-2021
				Comment			Original target was 125
Revised	SHS ICT packages implemented in beneficiary schools (cumulative)	<input type="checkbox"/>	Number	Value	0.00	70.00	232.00
				Date	01-Oct-2014	31-Mar-2017	01-Nov-2019

				Comment			Original target was 125
Revised	Monitoring system established and functioning to annually track data and publish information on all SHSs in Ghana.	<input type="checkbox"/>	Yes/No	Value	No	Yes	Yes
				Date	01-Oct-2014	05-Dec-2016	01-Nov-2021
				Comment			Target date revised
Revised	Research and sector analyses conducted to inform elaboration of Secondary Education Strategy	<input type="checkbox"/>	Number	Value	0.00	2.00	7.00
				Date	01-Oct-2014	05-Dec-2016	01-Nov-2021
				Comment			Original target was 5
New	Number of students benefiting from direct interventions to enhance learning	<input checked="" type="checkbox"/>	Number	Value	0.00	0.00	707,000
				Date	09-Sep-2017		30-Nov-2021
				Comment			
New	Number of students benefiting from direct interventions to enhance learning - Female	<input checked="" type="checkbox"/>	Number Sub Type Supplemental	Value	0.00	0.00	341,000
New	Survey on beneficiary satisfaction	<input checked="" type="checkbox"/>	Yes/No	Value	No	0.00	Yes
				Date	31-May-2017		30-Nov-2021
				Comment	No such survey exists		

Proposed Changes to Results Framework

Indicator	Proposed Revisions	Comments/ Rationale for Change
PDO-Level indicators		
Increase in transition rates from JHS3 to SHS1 in targeted districts	Change in end of project target value: Original target: 47% Revised target: 49%	Change in end-of-project target to correspond to more interventions in each targeted district
Increase in SHS educational attainment within two poorest quintiles in targeted districts (disaggregated by gender)	Continued	Adding more schools in the targeted districts should help increase attainment.
Increase in WASSCE achievement of percentage of students obtaining 6 credits and above within beneficiary schools (disaggregated by gender)	Change in baseline with addition of additional schools.	The increase in beneficiary schools would require revised baseline and end-line target values with yearly target values for an additional 2 years (through 2021). A separate baseline would be included for the additional schools being supported under the AF. This indicator would therefore be disaggregated by two cohorts of schools (original SEIP and AF). The increase in the WASSCE is measured yearly against the baseline.
Direct project beneficiaries (% female) (core indicator)	Change in end-of-project target value: Original target: 276,970 beneficiaries Revised target: 711,000	The data on the additional schools would inform the exact revised number of beneficiaries.
Intermediate Results indicators		
Component 1:		
Pillar 1: Increase Access with Equity in Senior Secondary Education in underserved districts		
New SHS seats created and utilized by SHS students in targeted schools	No change	No new construction planned
Increase in seats created and utilized within low-performing beneficiary SHSs	Change in end-of-project target value Original target: 5,000 Revised target: 10,000	
Scholarships/bursaries distributed to low-income students in participating districts and schools	Change in end-of-project target value Original target: 10,000 Revised target: 20,000	Under the AF, bursaries are provided rather than scholarships as newly entering students would all be subsidized by the free SHS education policy. Scholarships would continue for second- and third-year students not covered by the new policy.
Pillar 2: Improve Quality in Low-Performing Senior High Schools		
Teachers participating in training to upgrade or acquire new skills in mathematics or science	Change in end-of-project target value Original target: 860 Revised target: 2,200	Approximately 8 teachers per additional school would participate in training. This indicator is also a core corporate report card policy .
Increase in completion	Change in end of project target	

Indicator	Proposed Revisions	Comments/ Rationale for Change
rates in targeted schools (disaggregated by gender)	value Original target: 85.7% Revised target: 86.7%	
Number of performance partnerships for learning with beneficiary SHSs established	Change in end of project target value Original target: 125 Revised target: 232	In addition to the 125 to be established under the parent project, under the AF, an additional 107 to be established (in 84 schools in the targeted districts plus the 23 newly constructed schools).
SHS ICT packages implemented in beneficiary schools	Change in end of project target value: Original target: 125 Revised target: 232	In addition to the 125 to be established under the parent project, under the AF an additional 107 to be established (in 84 schools in the targeted districts plus the 23 newly constructed schools).
Number of students benefitting from direct interventions to enhance learning	707,000 (341,000 female)	New indicator - corporate report card policy. This indicator will be calculated as part of the project beneficiary reporting.
Component 2. Management, Research, and Monitoring and Evaluation		
Monitoring system established and functioning to annually track data and publish information on all SHSs in Ghana	Continued	No change
Research and sector analyses conducted to inform elaboration of the Secondary Education Strategy	Change in end of project target value: Original target: 5 Revised target: 7	The additional two years would allow for two additional sector policy and/or research analyses.
Survey on Beneficiary satisfaction	End line (yes/no)	New indicator - core citizen engagement indicator. This indicator will measure beneficiary satisfaction with the SEIP by surveying school-level stakeholders and using their feedback to inform project implementation. The survey would be conducted at the beginning and end of the AF.

Annex 2: Table on Disbursement-Linked Indicators and Disbursement-Linked Results and Verification Protocol for SEIP and SEIP AF

DLIs	Actions to be Completed DLRs	Amount of the Financing Allocated per DLR (US\$, million)	Verification Source/entity	Verification Protocol
DLI 1: Targeting of school expansion in underserved school districts	Achieved in Year 0 (2014)	5.54	Government Report World Bank	Government list of districts and schools with data on each indicator as per agreed selection criteria.
DLI 2: Increase in new seats for SHS students in underserved school districts (original credit only)	Year 0 - 2014 DLR 2.1: Pre-construction requirements met for new construction in 23 districts (Achieved)	4.64	Environmental Screening Report; Resettlement Action Plans (RAPs)	Safeguards compliance through ESMF and RPF verified in all new construction sites (screening and RAPs completed in 23 districts).
	Year 1 - 2015 DLR 2.2: About ²¹ 30% of all construction works completed (aggregated) (Achieved)	4.64	Review of Bidding Documents World Bank	Complete package of final bidding documents for new construction in 23 districts in line with appraised design and including facilities maintenance plans.
	Year 2 - 2016 DLR 2.3: About 80% of all construction works completed (aggregated) (Achieved)	4.64	Third-party verification	The Government of Ghana (GoG) report which includes schematic and site-specific designs based on agreed criteria and technical analysis
	Year 3 - 2017 DLR 2.4: About 5,000 new seats created in underserved districts	4.64	Third-party verification	Construction implementation reports verified by mobile monitoring and monthly construction supervision reports.
	Year 4 - 2018 DLR 2.5: About 15,000 new seats created in underserved districts (cumulative)	4.64 TOTAL SEIP: 23.20	Third-party verification	Seat occupancy verified by school enrollment records, subsidy collection list, and construction certificates.

²¹The word 'about' indicates acceptable range in the absolute quantity to determine the indicator is 'achieved' based on the principle that the spirit of the DLR has been met regardless of a slight difference in the absolute figure. The range for all 'about' indicators would allow for a 5 percent differential as elaborated in the PIM.

DLIs	Actions to be Completed DLRs	Amount of the Financing Allocated per DLR (US\$, million)	Verification Source/entity	Verification Protocol
DLI 3: Increase in number of seats utilized in existing low-performing schools	Year 0 - 2014 DLR 3.1: Pre-construction requirements met for upgrading of selected schools (Achieved)	4.64	Environmental Screening Report; Review of Bidding Documents; District Assembly certification	Safeguards compliance through the ESMF verified in all expansion/upgrading sites (environmental screening). Detailed school-specific plans include: types of facilities needed/eligible based on design and technical standards agreed upon between the GoG and the World Bank
	Year 1 - 2015 DLR 3.2: About 500 seats utilized (cumulative) (Achieved)	4.64	Third-party verification	Seat occupancy verified by school enrollment records, subsidy collection list, and independent third-party verification.
	Year 2 - 2016 DLR 3.3: About 1,000 seats utilized (cumulative) (Achieved)	4.64	Third-party verification	Seat occupancy verified by school enrollment records, subsidy collection list, and independent third-party verification.
	Year 3 - 2017 DLR 3.4: About 3,000 seats utilized (cumulative)	4.64	Third-party verification	Seat occupancy verified by school enrollment records, subsidy collection list and independent third-party verification.
	Year 4 - 2018 DLR 3.5: About 5,000 seats utilized (cumulative)	4.64 Total SEIP: 23.20	Third-party verification	Seat occupancy verified by school enrollment records, subsidy collection list, and independent third-party verification.
	<i>Year 0 (SEIP AF) - 2017</i> <i>DLR 3.6:</i> <i>Pre-construction requirements met for upgrading of beneficiary schools</i>	<i>2.47</i>	Environmental Screening Report; Review of Bidding Documents; District Assembly works department Third party verification	Safeguards compliance through the ESMF verified in all expansion/upgrading sites (environmental screening). Detailed school-specific plans include: types of facilities needed/eligible based on design and technical standards agreed upon between the GoG and the World Bank
	<i>Year 1 (SEIP AF) - 2018</i> <i>DLR 3.7:</i> <i>About 500 seats utilized (cumulative)</i>	<i>2.47</i>	Third-party verification	Seat occupancy verified by school enrollment records, subsidy collection list and independent third-party verification.

DLIs	Actions to be Completed DLRs	Amount of the Financing Allocated per DLR (US\$, million)	Verification Source/entity	Verification Protocol
	<i>Year 2 (SEIP AF) - 2019</i> <i>DLR 3.8:</i> <i>About 2000 seats utilized (cumulative)</i>	<i>2.47</i>	Third-party verification	Seat occupancy verified by school enrollment records, subsidy collection list, and independent third-party verification.
	<i>Year 3 (SEIP AF) - 2020</i> <i>DLR 3.9:</i> <i>About 2,500 seats utilized (cumulative)</i>	<i>2.47</i> <i>Total AF: 9.88</i>	Third-party verification	Seat occupancy verified by school enrollment records, subsidy collection list, and independent third-party verification.
DLI 4: Increased enrollment in SHS in targeted districts and schools for students from low-income families, especially girls	Year 0 - 2014 DLR 4.1: Contracting of scholarship agency to advise on administration of scholarships and criteria for selection of beneficiaries of scholarships developed (Achieved)	4.64	Government report based on PIM guidelines for selection of schools and adoption of scholarship criteria for incentives; Scholarship agency terms of reference	Methodology and criteria for selection of beneficiaries (as agreed in the PIM); List of beneficiaries for targeted districts available in district education offices. Incentives provided in the form of transfers to schools.
	Year 1 - 2015 DLR 4.2: At least 2,000 SHS students receiving scholarship in beneficiary schools (Achieved)	4.64	School scholarship reports Third-party verification	Scholarship report aggregated by quality team (bi-annually) Monitoring reports verifying receipt of scholarships bi-annually by M&E team
	Year 2 - 2016 DLR 4.3: At least 4,000 SHS students receiving scholarship in beneficiary schools (cumulative) (Achieved)	4.64	School scholarship reports Third-party verification	Scholarship report aggregated by quality team (bi-annually) Monitoring reports verifying receipt of scholarships bi-annually by M&E team
	Year 3 - 2017 DLR 4.4: At least 6,000 SHS students receiving scholarship in beneficiary schools (cumulative)	4.64	School scholarship reports Third-party verification	Scholarship report aggregated by quality team (bi-annually) Monitoring reports verifying receipt of scholarships bi-annually by M&E team
	Year 4 - 2018 DLR 4.5: At least 10,000 SHS students receiving scholarship in beneficiary schools (cumulative)	4.64 Total SEIP: 23.20	School scholarship reports Third-party verification	Scholarship report aggregated by quality team (bi-annually) Monitoring reports verifying receipt of scholarships bi-annually by M&E team
	<i>Year 1 (SEIP AF) -</i>	<i>2.47</i>	Third-party	Scholarship report

DLIs	Actions to be Completed DLRs	Amount of the Financing Allocated per DLR (US\$, million)	Verification Source/entity	Verification Protocol
	<i>2018 DLR 4.6: At least 5,000 SHS students receiving bursaries in beneficiary schools</i>		verification and World Bank supervision	aggregated by quality team (bi-annually) Monitoring reports verifying receipt of scholarships bi-annually by M&E team
	<i>Year 2 (SEIP AF) - 2019 DLR 4.7: At least 10,000 SHS students receiving bursaries in beneficiary schools (cumulative)</i>	<i>2.47 TOTAL AF: 4.94</i>	Third-party verification	Scholarship report aggregated by quality team (bi-annually) Monitoring reports verifying receipt of scholarships bi-annually by M&E team
DLI 5: Annual publication of School Performance Report	Year 1 - FY2014 DLR 5.1: School mapping of all SHS completed (Achieved)	4.64	Report on school mapping exercise and data provided to World Bank (including code book)	Spatial and geographic mapping based on verifiable data and a number of key indicators; published as a report by 2015 National Education Sector Annual Review (NESAR).
	Year 2 - 2016 DLR 5.2: Publication of updated school performance data for FY2015/16 online and in brochure (Partially Achieved)	4.64	Online school performance data Linked to the MOE website and web platform for mobile monitoring	Annual publication includes analysis of school-level data with particular emphasis on learning outcomes, equity (including participation of girls), new student enrollment, and infrastructure conditions.
	Year 3 - 2017 DLR 5.3: Publication of updated school performance data for FY2016/17 online and in brochure	4.64	Online school performance data Linked to the MOE website and web platform for mobile monitoring	Annual publication includes analysis of school-level data with particular emphasis on learning outcomes, equity (including participation of girls), new student enrollment, and infrastructure conditions.
	Year 4 - 2018 DLR 5.4: Publication of updated school performance data for FY2017/18 online and in brochure	4.64 TOTAL SEIP: 18.56	Online school performance data Linked to the MOE website and web platform for mobile monitoring	Annual publication includes analysis of school-level data with particular emphasis on learning outcomes, equity (including participation of girls), new student enrollment, and infrastructure conditions.
	<i>Year 2 (SEIP AF) - 2019 DLR 5.5: Publication of updated</i>	<i>2.47</i>	Online school performance data Linked to the MOE	Annual publication includes analysis of school-level data with particular emphasis on learning outcomes, equity

DLIs	Actions to be Completed DLRs	Amount of the Financing Allocated per DLR (US\$, million)	Verification Source/entity	Verification Protocol
	<i>school performance data for FY2018/19 online and in brochure</i>		website and web platform for mobile monitoring	(including participation of girls), new student enrollment, as well as infrastructure conditions.
	<i>Year 3 (SEIP AF) - 2020 DLR 5.6: Publication of updated school performance data for FY2019/20 online and in brochure</i>	<i>2.47</i> <i>TOTAL AF: 4.94</i>	Third-party verification and the World Bank	Annual publication includes analysis of school-level data with particular emphasis on learning outcomes, equity (including participation of girls), new student enrollment, and infrastructure conditions.
DLI 6: School Performance Partnerships in Beneficiary Schools	Year 0 - 2014 DLR 6.1: Guidelines on preparation of SPPs developed and distributed to beneficiary schools (Achieved)	4.64	World Bank district/regional education offices annual reports	Guidelines approved and distributed to targeted schools. Detailed report on school-level training on school improvement planning and management.
	Year 1 - 2015 DLR 6.2: Training on school improvement planning and implementation provided for 125 beneficiary schools (Achieved)	4.64	Third-party validation- School audit School SPP survey	Guidelines approved and distributed to targeted schools. Detailed report on school-level training on school improvement planning and management.
	Year 2 - 2016 DLR 6.3: SPPs for 80 beneficiary schools (cumulative) signed (Achieved)	4.64	Third-party validation	SPPPs are developed by schools in collaboration with local communities, district and regional education directorates using guidelines in the PIM. The GoG reviews proposals and focuses on providing support to essential quality improvements, including activities which strengthen teacher competencies, improve training and skills of students and teachers in mathematics and science
	Year 3 - 2017 DLR 6.4: At least 100 beneficiary schools signing SPPs (cumulative)	4.64	Third-party validation	Signed partnership agreements available for audit in district education offices. They include information on: school location, identified needs and action plan (including time frame and budget) and linked

DLIs	Actions to be Completed DLRs	Amount of the Financing Allocated per DLR (US\$, million)	Verification Source/entity	Verification Protocol
				to predefined learning objectives.
	Year 4 - 2018 DLR 6.5: At least 95% of beneficiary schools implementing SPPs based on SPPPs (cumulative)	4.64 TOTAL SEIP: 23.20	Third-party validation- school audit School SPP survey	Signed partnership agreements available for audit in district education offices. They include information on: school location, identified needs and action plan (including time frame and budget) and linked to predefined learning objectives. Financial management quarterly interim unaudited financial reports (IUFRs) transfers to schools for SPPs.
	<i>Year 0 (SEIP AF) - 2017 DLR 6.6: Training on school improvement planning and implementation provided for additional schools; Guidelines on SPPs distributed to additional schools and about 50% of the additional schools have signed SPPs</i>	<i>2.47</i>	Third-party validation	Guidelines approved and distributed to targeted schools. Detailed report on school-level training on school improvement planning and management. SPPPs are developed by schools in collaboration with local communities, district and regional education directorates using guidelines in the PIM.
	<i>Year 1 (SEIP AF) - 2018 DLR 6.7: SPPs for at least 95% of additional schools signed and implemented</i>	<i>2.47</i>	Third-party validation	Signed SPPs available for audit in district education offices. They include information on school location, identified needs and action plan (including time frame and budget) and linked to predefined learning objectives. Financial management quarterly IUFR transfers to schools for SPPs.

DLIs	Actions to be Completed DLRs	Amount of the Financing Allocated per DLR (US\$, million)	Verification Source/entity	Verification Protocol
	<i>Year 2 (SEIP AF) - 2019</i> <i>DLR 6.8: At least 95% beneficiary schools implementing SPPs based on SPPPs</i>	2.47	Third-party validation School audit School SPP survey	Signed SPPs available for audit in district education offices. They include information on: school location, identified needs and action plan (including time frame and budget) and linked to predefined learning objectives. Financial management quarterly IUFR transfers to schools for SPPs
	<i>Year 3 (SEIP AF) – 2020</i> <i>DLR 6.9: At least 95% of beneficiary schools implementing SPPs based on SPPPs</i>	2.47 TOTAL AF: 9.88	Third-party validation School audit School SPP survey	Signed SPPs available for audit in district education offices. They include information on: school location, identified needs and action plan (including time frame and budget) and linked to predefined learning objectives. Financial management quarterly IUFR transfers to schools for SPPs.
	DLI 7: Improved learning outcomes in beneficiary schools (quality package)	4.64	National Council on Curriculum and Assessment report and workshop proceedings	Preliminary curriculum review report on consultations and workshops held (participants, agendas, and recommendations) Curriculum can be used throughout country and adheres to best practices in strengthening skills in mathematics and science GoG endorsement of curriculum and training plan communicated to all selected schools
	Year 1 - 2015 DLR 7.2: Training modules rolled out for mathematics and science and ICT-based	4.64	Third-party validation i-campus content and modules	Training plan includes identification of key competences, training time frame, tracking participation, and certification of

DLIs	Actions to be Completed DLRs	Amount of the Financing Allocated per DLR (US\$, million)	Verification Source/entity	Verification Protocol
	instruction developed for school use (Achieved)		finalized, rolled out and reported by Center for Distance Learning	completion. ICT equipment provided to all selected schools, including i-campus packages; National Information Technology Agency (NITA) provided Wi-Fi connectivity verified by service contracts.
	Year 2 - 2016 DLR 7.3: ICT-based instruction rolled out in about 50% of selected schools (cumulative). (Achieved)	4.64	Third-party validation	ICT equipment provided to selected schools, including i-campus packages (core curriculum modules and on and offline capabilities); NITA provided Wi-Fi connectivity verified by service contracts.
	Year 3 - 2017 DLR 7.4: ICT-based instruction rolled out in at least 95% of selected schools (cumulative)	4.64	Annual school survey WASSCE report Third-party validation	ICT equipment provided to all selected schools, including i-campus packages (core curriculum modules and on and offline capabilities); NITA provided Wi-Fi connectivity verified by service contracts. Annual report includes information on: rollout activities, targeting, planned attendance, number of teachers successfully completing training and demonstrating improved content knowledge in mathematics and science, pedagogical and classroom management skills

DLIs	Actions to be Completed DLRs	Amount of the Financing Allocated per DLR (US\$, million)	Verification Source/entity	Verification Protocol
	Year 4 - 2018 DLR 7.5: Increase the percentage of students obtaining 6 credits and above WASSCE scores averaged in beneficiary schools	4.64 TOTAL SEIP: 23.20		Annual report includes information on: rollout activities, targeting, planned attendance, number of teachers successfully completing training and demonstrating improved content knowledge in mathematics and science, pedagogical and classroom management skills
	<i>Year 1 (SEIP AF) - 2018</i> DLR 7.6: <i>Science and mathematics teachers trained and ICT-based instruction rolled out in at least 95% additional schools</i>	2.47		Annual report includes information on: rollout activities, targeting, planned attendance, number of teachers successfully completing training and demonstrating improved content knowledge in mathematics and science, pedagogical and classroom management skills. ICT equipment provided to all selected schools, including i-campus packages (core curriculum modules and on and offline capabilities); NITA provided Wi-Fi connectivity verified by service contracts.
	<i>Year 2 (SEIP AF) - 2019</i> DLR 7.7: <i>Increase the percentage of students obtaining 6 credits and above WASSCE scores averaged in beneficiary schools</i>	2.47		WASSCE results aggregated for beneficiary schools. Increase is measured against baseline.
	<i>Year 3 – (SEIP AF)</i> DLR 7.8: 2020 <i>Increase the percentage of students obtaining 6 credits and above WASSCE</i>	2.47		WASSCE results aggregated for beneficiary schools. Increase is measured against baseline.

DLIs	Actions to be Completed DLRs	Amount of the Financing Allocated per DLR (US\$, million)	Verification Source/entity	Verification Protocol
	<i>scores averaged in beneficiary schools</i>	<i>TOTAL AF: 7.41</i>		
	TOTAL SEIP	140.10		
	<i>TOTAL SEIP AF</i>	<i>37.00</i>		
	<i>TOTAL Component 1</i>	<i>177.1</i>		

Note: Shaded DLRs have been achieved under the first three years of the SEIP and funds were released against the DLRs. Italicized DLRs represent SEIP AF results.

Annex 2: Appendix 2 - Schedule 4: Disbursement Linked Indicators and Disbursement Linked Results for AF

DLI Description, Targets and Amounts for SEIP AF						
		2017 - Effectiveness Year 0	2018 Year 1	2019 Year 2	2020 Year 3	Total
DLI 3. Increase the number of seats utilized in existing low-performing schools		Pre-construction requirements met for upgrading of beneficiary schools	About 500 seats utilized (cumulative)	About 2,000 seats utilized (cumulative)	About 2,500 seats utilized (cumulative)	
DLI Amount expressed in US\$, millions		2.47	2.47	2.47	2.47	9.88
DLI 4. Increased enrollment in SHS in targeted districts and schools for students from low-income families, especially girls			At least 5,000 SHS students receiving bursaries in beneficiary schools	At least 10,000 SHS students receiving bursaries in beneficiary schools (cumulative)		
DLI Amount expressed in US\$, millions			2.47	2.47		4.94
DLI 5. Annual publication of School Performance Report				Publication of updated school performance data for FY2018/19 online and in brochure	Publication of updated school performance data for FY2019/20 online and in brochure	
DLI Amount expressed in US\$, millions				2.47	2.47	4.94
DLI 6. School Performance Partnerships in Beneficiary Schools		Training on school improvement planning and implementation provided for additional schools completed; and guidelines on SPPs distributed to additional schools and about 50% of the additional schools have signed SPPs	SPPs for at least 95% of additional schools signed and implemented	At least 95% beneficiary schools implementing performance partnerships based on SPPPs	At least 95% beneficiary schools implementing performance partnerships based on SPPPs	

DLI Description, Targets and Amounts for SEIP AF						
		2017 - Effectiveness Year 0	2018 Year 1	2019 Year 2	2020 Year 3	Total
DLI Amount expressed in US\$, millions		2.47	2.47	2.47	2.47	9.88
DLI 7. Improved learning outcomes in beneficiary schools (quality package)			Science and mathematics teachers trained and ICT-based instruction rolled out in additional schools	Increase in percentage of students obtaining 6 credits and above WASSCE scores averaged in beneficiary schools	Increase in percentage of students obtaining 6 credits and above WASSCE scores averaged in beneficiary schools	
DLI Amount expressed in US\$, millions			2.47	2.47	2.47	7.41
Total DLI Amount expressed in US\$, millions						37

Annex 2: Appendix 3 - SEIP and SEIP AF Targets and Indicative Timeline for DLI Achievement

	Total Financing Allocated to DLI under AF (US\$ million)	As % of Total Financing Amount of AF	Targets and Indicative Time Line for DLI Achievement							Total	Rationale for Change from Original
			Year 0 (2014)	Year 1 (2015)	Year 2 (2016)	Year 3 (2017)	Year 4 (2018)	Year 5 (2019)	Year 6 (2020)		
						Year 0 (AF)	Year 1 (AF)	Year 2 (AF)	Year 3 (AF)		
DLI 1 Targeting of school expansion in underserved school district (met in Year 0 - 2014) US\$5.54 million											
Allocated amount (US\$, millions)			5.54 (Achieved)	—	—	—	—	—	—	5.54	Achieved
DLI 2 Increase in new seats for SHS students in underserved school districts²²											
			Pre-construction requirements met for new construction in 23 districts	About 30% of all construction works completed (aggregated)	About 80% of all construction works completed (aggregated)	About 5,000 new seats created in underserved districts	About 15,000 new seats created in underserved districts (cumulative)				
Status of Achievement/Disbursement			100% US\$4.64 millions	100% US\$4.64 millions	100% US\$4.64 millions						
Allocated amount (US\$, millions)						4.64	4.64			23.2	No new schools to be constructed
DLI 3: Increase in number of seats utilized in existing low-performing schools											
			Pre-construction	About 500 seats utilized	About 1,000 seats utilized (cumulative)	About 3,000 seats	About 5,500 seats utilized (cumulative)	About 7,500 seats	About 10,000 seats		Includes facilities upgrading in

²²This DLI will not be continued under the AF.

	Total Financing Allocated to DLI under AF (US\$ million)	As % of Total Financing Amount of AF	Targets and Indicative Time Line for DLI Achievement							Total	Rationale for Change from Original
			Year 0 (2014)	Year 1 (2015)	Year 2 (2016)	Year 3 (2017) Year 0 (AF)	Year 4 (2018) Year 1 (AF)	Year 5 (2019) Year 2 (AF)	Year 6 (2020) Year 3 (AF)		
			requirements met for upgrading of selected schools	(cumulative)		utilized (cumulative) Pre-construction requirements met for upgrading of additional schools		utilized (cumulative)	utilized (cumulative)		75 schools out of 125. AF for Years 1, 2, and 3 correspond to Years 4, 5 and 6 of original SEIP and provide additional seats of 500; 2,000; and 2,500 respectively
Status of Achievement/Disbursement			100% US\$4.64 million	100% US\$4.64 million	100% US\$4.64 million						
Allocated amount (US\$, millions)	9.88	25%				4.64 (original) 2.47 (AF)	4.64 (original) 2.47 (AF)	2.47 (AF)	2.47 (AF)	33.08	
DLI 4: Increased enrollment in SHS in targeted districts and schools for students from low-income families, especially girls											
			Contracting of scholarship agency to advise on administration of scholarships completed	At least 2,000 SHS students receiving scholarship in beneficiary schools	At least 4,000 SHS students receiving scholarship in beneficiary schools (cumulative)	At least 6,000 SHS students receiving scholarship in beneficiary schools (Cumulative)	At least 10,000 SHS students receiving scholarship in beneficiary schools (cumulative)	At least 10,000 SHS students receiving bursaries			Includes additional bursaries to low-income students across all beneficiary schools.

	Total Financing Allocated to DLI under AF (US\$ million)	As % of Total Financing Amount of AF	Targets and Indicative Time Line for DLI Achievement							Total	Rationale for Change from Original
			Year 0 (2014)	Year 1 (2015)	Year 2 (2016)	Year 3 (2017)	Year 4 (2018)	Year 5 (2019)	Year 6 (2020)		
			and criteria for selection of beneficiaries of scholarships developed			ve)	At least 5,000 SHS students receiving bursaries in beneficiary schools (AF)	es in beneficiary schools (cumulative) (AF)			Bursaries replace scholarships as free SHS is rolled out.
Status of Achievement/Disbursement			100% US\$4.64 million	100% US\$4.64 million	100% US\$4.64 million						
Allocated amount (US\$, millions)	4.94	12%				4.64 (original)	4.64 (original) 2.47 m (AF)	2.47 (AF)		28.14	
DLI 5: Annual Publication of School Performance Report											
				School mapping of all SHS completed	Publication of updated school performance data for FY2015/16 online and in brochure	Publication of updated school performance data for FY2016/17 online and in brochure	Publication of updated school performance data for FY2017/18 online and in brochure	Publication of updated school performance data for FY2018/19 online and in brochure	Publication of updated school performance data for FY2019/20 online and in brochure		AF would support performance report published in last two years of SEIP implementation.

	Total Financing Allocated to DLI under AF (US\$ million)	As % of Total Financing Amount of AF	Targets and Indicative Time Line for DLI Achievement								Rationale for Change from Original
			Year 0 (2014)	Year 1 (2015)	Year 2 (2016)	Year 3 (2017)	Year 4 (2018)	Year 5 (2019)	Year 6 (2020)	Total	
						Year 0 (AF)	Year 1 (AF)	Year 2 (AF)	Year 3 (AF)		
								re			
Status of Achievement/Disbursement				100% US\$4.64 million							
Allocated amount (US\$, millions)	4.94	12%			4.64 (original)	4.64 (original)	4.64 (original)	2.47 (AF)	2.47 (AF)	23.5	
DLI 6: School Performance Partnerships in Beneficiary Schools											
			Guidelines on preparation of SPPs developed and distributed to beneficiary schools	Training on school improvement planning and implementation provided for 125 beneficiary schools	SPPs for 80 beneficiary schools signed	SPPs for at least 100 beneficiary schools signed (cumulative) Training on school improvement planning and implementation provided for	At least 95% of beneficiary schools implementing SPPs based on SPPPs SPPs for at least 95% of additional schools signed and implemented	At least 95% of beneficiary schools implementing SPPs based on SPPPs	At least 95% of beneficiary schools implementing SPPs based on SPPPs		125 original SPPs plus estimated 107 additional SPPs

	Total Financing Allocated to DLI under AF (US\$ million)	As % of Total Financing Amount of AF	Targets and Indicative Time Line for DLI Achievement								Rationale for Change from Original
			Year 0 (2014)	Year 1 (2015)	Year 2 (2016)	Year 3 (2017) Year 0 (AF)	Year 4 (2018) Year 1 (AF)	Year 5 (2019) Year 2 (AF)	Year 6 (2020) Year 3 (AF)	Total	
						additional schools; Guidelines on SPPs distributed to additional schools and about 50% additional schools have signed SPPs.					
Status of Achievement/Disbursement			100% US\$4.64 million	100% US\$4.64 million	100% US\$4.64 million						
Allocated amount (US\$, millions)	9.88	25%				4.64 (original) 2.47 (AF)	4.64 (original) 2.47 (AF)	2.47 (AF)	2.47 (AF)	33.08	
DLI:7: Improved Learning Outcomes in beneficiary schools											
			Report on review of the quality of teaching and learning for mathematics	Training modules rolled out for mathematics and science	ICT based instruction rolled out in about 50% of targeted schools (cumulative)	ICT based instruction rolled out in at least 95% of beneficiary schools	Increase in percentage of students obtaining 6 credits and above WASSCE	Increase in percentage of students obtaining 6	Increase in percentage of students obtaining 6		Original 125 schools plus 23 newly constructed schools and 84 additional schools in

	Total Financing Allocated to DLI under AF (US\$ million)	As % of Total Financing Amount of AF	Targets and Indicative Time Line for DLI Achievement							Total	Rationale for Change from Original
			Year 0 (2014)	Year 1 (2015)	Year 2 (2016)	Year 3 (2017)	Year 4 (2018)	Year 5 (2019)	Year 6 (2020)		
						Year 0 (AF)	Year 1 (AF)	Year 2 (AF)	Year 3 (AF)		
			s and science in SHS	and ICT-based instruction developed for school use		(cumulative)	scores averaged in beneficiary SHS Science and mathematics teachers trained and ICT based instruction rolled out in at least 95% of additional schools	ng 6 credits and above WASSCE scores averaged in beneficiary Schools	credits and above WASSCE scores averaged in beneficiary Schools		targeted districts.
Status of Achievement/Disbursement			100% US\$4.64 million	100% US\$4.64 million	100% US\$4.64 million						
Allocated amount (US\$, millions)	7.41	18%				4.64 (original)	4.64 (original) 2.47 (AF)	2.47 (AF)	2.47 (AF)	30.61	

Annex 3: Updated Economic and Financial Analysis

Introduction

1. This annex summarizes the economic and financial analysis of the proposed AF. The annex also presents an updated discussion on the returns to education and a cost benefit analysis of the SEIP interventions after two years of implementation.

2. **The SHS system in Ghana has undergone rapid expansion** from 700 SHSs in 2006 to 872 total SHSs in 2016 and 376,049 public SHS enrollment in 2005/06 to a projected enrollment of 868,000 students in public schools in 2016/2017. In 2015/16, the GER and NER in secondary education was 49.6 percent and 25.2 percent, respectively. The pupil-to-trained-teacher ratio in general SHS is 24:1, and 86 percent of teachers are trained.²³ To match this expansion, government expenditure per secondary student went from US\$886 in 2011 to US\$1,103 in 2014 (purchasing power parity).²⁴ The SHS expenditure has increased from 18.5 percent of the education budget in 2012 to 21.6 percent in 2015 (table 3.1).

Table 3. 1. Trends in Education Expenditure by Level

Level	2012		2013		2014		2015	
	Expenditure (GHS)	%	Expenditure (GHS)	%	Expenditure (GHS)	%	Expenditure (GHS)	%
Pre-school	435,502,334	7.6	363,499,436	6.4	501,912,110	7.6	440,567,890	5.6
Primary	1,302,972,161	22.8	1,388,792,576	24.4	1,445,683,240	22.0	1,270,418,880	16.0
JHS	969,147,257	17.0	965,117,148	16.9	1,054,711,276	16.1	1,691,653,730	21.3
SHS	1,057,413,465	18.5	1,152,064,995	20.2	1,467,511,148	22.4	1,713,539,729	21.6
TVET	163,681,164	2.9	103,039,432	1.8	243,962,422	3.7	183,950,543	2.3
SPED	21,717,157	0.4	28,064,385	0.5	29,266,775	0.4	29,437,635	0.4
NFED	40,538,896	0.7	39,952,006	0.7	32,271,191	0.5	14,517,722	0.2
Tertiary	1,081,971,635	19.0	1,106,283,329	19.4	1,063,958,851	16.2	1,848,576,964	23.3
Management and Agencies	631,075,530	11.1	549,865,010	9.7	725,315,494	11.0	744,727,324	9.4
Total	5,704,019,599	100.0	5,696,678,317	100.0	6,564,592,507	100.0	7,937,390,417	100.0

Source: MOE Education Sector Performance Report 2016

Economic Justification for Additional Financing

3. **With a dual focus on equitable access and quality backed by DLIs, it is expected that student learning outcomes will improve as a result of the SEIP/AF, which in turn will raise future employability and wages of these students.** The total benefit of the project is likely to be much higher if non-monetary returns for beneficiaries as well as social returns, such

²³ Source: GoG

²⁴ United Nations Educational, Scientific, and Cultural Organization Institute for Statistics (UNESCO UIS) Data

as increased aggregate productivity (over and above the direct effect on individual productivity), reduced crime, and improved political participation are considered (see table 3.2).

Table 3.2. Types of Return to Education

	Benefits	Costs
Private (individual)	Earnings (due to productivity) Employability Mobility Quality of life	Direct cost: Tuition, boarding, textbooks and so on Indirect (opportunity) cost: Forgone earnings
Social (public)	Economic growth: More adaptable labor force, technology adaptation, and entrepreneurship Externalities: Innovation Saved expenses: From social benefits	Project cost State's spending

Private Returns to SHS Education

4. **Private rates of return are used to explain the behavior of individuals in seeking different education levels.** Estimates of the returns to schooling and to potential experience are a useful indicator of an individual's productivity. The private rates of return to secondary education in Ghana increased from 7.8 percent in 2005 to 8.8 percent in 2012. Within secondary education, returns are higher for females (11 percent) than males (6.5 percent). The returns to secondary education in Ghana are higher than the global average for secondary education (6.8 percent) but lower than the Sub-Saharan African average of 10.6 percent (tables 3.3 and 3.4).²⁵ While there are methodological challenges associated with using Mincerian regressions—as the controlling for covariates method does not address the endogeneity problem in the estimation caused by unobservable characteristics like ability and motivation—they provide a useful indicator of the productivity of individuals by level of education.

Table 3.3. Trends in Returns to Education in Ghana

Returns	2005	2012	Direction of Change
Return to another year of schooling	10.30	12.50	↑
Standard deviation of return to another year of schooling	4.60	4.60	
Returns to education total primary	4.70	2.70	↓
Returns to education total secondary	7.80	8.80	↑
Returns to education total tertiary	23.20	28.70	↑
Returns to schooling male secondary	6.80	6.50	↓
Returns to schooling female secondary	8.40	11.00	↑

Source: Montenegro, Claudio E. and Harry Anthony Patrinos. 2014. "Comparable Estimates of Returns to Schooling Around the World." Policy Research Working Paper No. WPS 7020. Washington, DC: World Bank.

²⁵ Montenegro, Claudio E. and Harry Anthony Patrinos. 2014. "Comparable Estimates of Returns to Schooling Around the World." Policy Research Working Paper No. WPS 7020. Washington, DC: World Bank

Table 3.4. Rates of Returns to Education by Region and Levels of Education

Region	Primary	Secondary	Tertiary
East Asia	13.60	5.30	14.80
Europe/Central Asia	13.90	4.70	10.30
Latin America	7.80	5.40	15.90
Middle East/North Africa	16.00	4.50	10.50
South Asia	6.00	5.00	17.30
Sub-Saharan Africa	14.40	10.60	21.00
All economies	11.50	6.80	14.60

Source: Montenegro, Claudio E. and Harry Anthony Patrinos. 2014. "Comparable Estimates of Returns to Schooling Around the World." Policy Research Working Paper No. WPS 7020. Washington, DC: World Bank.

5. **The returns to education also vary based on the type of employment.** Data from the 2012/13 GLSS²⁶ indicates that the average monthly earnings of paid employed persons for all occupations are GHS 495.47. Legislators/managers have average monthly earnings of GHS 1081.34, while skilled agriculture/fishery workers have much lower earnings (GHS 263.09).

Rationale for Public Investment

6. **The rationale for public investment in education is related to the high social, economic, and non-economic rates of return to education,** in addition to the market imperfections that preclude the poor from reaping the private returns to education.

Social Returns to SHS Education

7. **Education is an investment that increases individuals' skills and makes more informed and socialized citizens.** Higher number of years of education is also correlated with democratic governments across countries. At the individual level, skills make individuals more productive and employable, extending their labor market participation over their lifetime, leading to higher earnings, and better quality of life. At the country level, education is associated with economic growth.

8. **Furthermore, research suggests that secondary education for girls has positive impacts, especially on reproductive health, fertility, and empowerment** (Shannon, Belmonte and Nelson 2009²⁷; Warner, Malhotra, and McGonagle 2012²⁸; Ackerman 2015²⁹). A recent study³⁰ on the impact of scholarships shows that women who received a scholarship had 0.217 fewer children by age 25. They were also 5.5 percentage points (10 percent) more likely to have positive earnings and had significantly higher (hyperbolic sine) earnings.

²⁶ Ghana Statistical Service (GSS). 2006 and 2013. "Ghana Living Standards Survey." The 2005/06 GLSS sampled 39,001 respondents between the ages of 15 and 65, and the 2012/13 GLSS sampled 19,974.

²⁷ Murphy, Shannon, Wivinia Belmonte, and Jane Nelson. 2009 *Investing in Girls' Education: An Opportunity for Corporate Leadership*

²⁸ Lee-Rife, S., Malhotra, A., Warner, A. and Glinski, A. M. 2012. *What Works to Prevent Child Marriage: A Review of the Evidence. Studies in Family Planning*

²⁹ Ackerman Xanthe 2015. *Innovation and Action in Funding Girl's Education*

³⁰ Duflo, Esther, Pascaline Dupas, and Michael Kremer. 2017. *The Impact of Free Secondary Education: Experimental Evidence from Ghana.*

The Case for Focusing on Quality

9. **The rationale for public investment is even stronger in the context of this AF given its focus on improving the quality of education, which is expected to reinforce its impact on economic and social development.** Quality of SHS programs shows large disparities between the best 100 schools and the rest of the schools. The WASSCE results indicate that quality has been declining since 2012 and these results also demonstrate significant regional disparities.³¹ The WASSCE exams also show that a small number of SHSs supply over 90 percent of the higher education entrants and the rest of SHSs produce between 60 percent and 90 percent of the fail rates at the examination. Forty-six percent of the students who qualify for tertiary education by successfully sitting for the WASSCE are from the top 20 percent of SHS in the country while 8 percent of students from the bottom 20 percent of the schools (106 schools) qualify for tertiary education.

10. **The largest returns are observed among those with tertiary education** (university degree and polytechnics). Those having tertiary education receive hourly earnings which are 114 percent higher than the earnings of those without formal education. This finding highlights the importance of quality SHS because without this, students cannot transit to the tertiary level. Data from the 2012/13 GLSS³² show that the majority of professionals (87.5 percent), clerical support workers (73.2 percent), technicians and associate professionals (63.4 percent), and legislators or managers (59.6 percent) have attained secondary education or higher.

The Case for Focusing on Equity

11. **Regional location has the most significant impact on earnings** with the poorest regions providing the lowest earning opportunities regardless of education or employment status. The economic benefits of SHS are sharply divided among the best performers going to tertiary education from the best SHSs and the majority from the rest of the system who do not. The 2012/13 GLSS shows that there are marked differences in the unemployment rates recorded in the regions, with Upper East (10.8 percent) recording the highest unemployment rate and Brong Ahafo (2.9 percent) recording the lowest. The female unemployment rate is higher than that for males in all regions except in the Central and Upper West regions where the reverse is the case.

12. Furthermore, the average monthly earnings for males (GHS 592.64) are much higher than for females (GHS 395.48). In occupations such as agriculture, crafts, and related trades and in elementary occupations, females remained at a disadvantage. The discrepancy in monthly earnings between male and female workers has emerged partly on account of differences in hours of work. Overall, the average monthly cash earnings by those receiving cash and the average monthly in-kind earnings by those receiving payments in kind are more for males than for females in almost all the occupational groups.

Cost-Benefit Analysis of SEIP Interventions under Pillar 1 (Unit Cost Analysis)

³¹ MOE Education Sector Performance Report 2016.

³² Ghana Statistical Service (GSS). 2006 and 2013. "Ghana Living Standards Survey." The 2005/06 GLSS sampled 39,001 respondents between the ages of 15 and 65, and the 2012/13 GLSS sampled 19,974.

13. **Having gone through two years of implementation, the DLI-based design has shifted the focus of the Government toward empirical-based policy making.** The interventions of SEIP are amenable to a cost-benefit analysis because the benefits of activities under this component can be reasonably appraised from existing data. Based on data compiled so far, the section below provides a cost-benefit analysis for the different SIEP-supported interventions and a justification for the expansion of these activities under the proposed AF.

School Expansion

14. **Under Results Area 1, the project supports the construction of 23 new schools and rehabilitation of 50 schools.** The DLIs associated with this activity aim to reward significant increases in the number of new seats utilized in the newly constructed schools as well as the existing low-performing schools.

15. **Costs.** The projected total final cost of the new construction works including variations and fluctuations is estimated at GHS 303,339,955.17 (US\$72,801,589.2). This exceeds the original total contract sum of GHS 268,592,295.86 (including contingencies) by GHS 34,747,661.31 representing an increase of 12.94 percent of the original total contract sums. The projected final cost of the facility upgrade works including variations and fluctuations is estimated at GHS 25,023,068.10 (US\$6,005,536.3). This exceeds the original total contract sum of GHS 22,223,550.68 (including contingencies) by GHS 2,799,517.42 representing 12.6 percent increase of the original total contract sums.

16. **The unit costs of construction** based on revised contract values are lower than the estimated costs at project design. The unit cost for new schools is US\$3.2 million compared to the estimate of US\$4.3 million and the unit cost for upgrades is US\$0.12 million compared to an estimated amount of US\$0.32 million (table 3.5).

Table 3.5. Unit Costs of Construction

	No. of Schools	Total Revised Contract Value (GHS)	Total Revised Contract Value (US\$)	Unit Cost (US\$)	Unit cost (US\$, millions)	Original estimates (US\$, millions)
Facility upgrade	50	25,023,068.10	6,005,536.30	120,110.70	0.12	0.32
New works	23	303,339,955.20	72,801,589.20	3,165,286.50	3.20	4.30

Source: Project Data

17. **The unit costs of construction are considerably lower than comparable regional estimates (table 3.6).** The average unit cost of a SEIP classroom is GHS 52,500.00 (US\$13,125) for a classroom measuring 8.85 m by 7.05 m with a 1.5 m wide veranda and accommodating 48 students. This is among the lower range of unit costs of construction of comparable WB projects in Sub-Saharan African countries, with the lowest cost being US\$12,931 in Benin and the highest being US\$24,434 in Burundi.

Table 3.6. Regional Comparison of Unit Costs of Construction

Unit Costs for	Cote d'Ivoire	Benin	Burundi	Uganda	Ghana
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Classroom (US\$)					
Construction	21,118	12,931–20,000	24,434	7,400–8,400	13,125

Source: Cote d'Ivoire ICR, 2013 and GoG estimates.

18. **Benefits.** As of March 2017, 13 of the 23 new schools have reported enrollment of 3,111 students for the 2016/2017 academic year and 5,889 seats were created and utilized within low-performing beneficiary SHSs.

Scholarships

19. The project also provides scholarships to students from low-income families, especially girls, to enhance equitable access to secondary education.

20. **Costs.** Scholarship amount is GHS 1,750 (US\$500) per year. The total cost for scholarships for the three academic years for 5,398 students was US\$16.5 million (table 3.7).

Table 3.7. Scholarship Costs under SEIP

Cohort	Schools	Students	2014/2015	2015/2016	2016/17	Total (GHS)
					First Term	
1 - Year 1	107	2,093	3,945,067.50	—	—	3,945,067.50
1 - Year 2	107	2,074	—	3,626,099.77	—	3,626,099.77
1 - Year 3	107	2,074	—	—	1,209,826.42	1,209,826.42
2 - Year 1	108	3,324	—	5,815,000.00	—	5,815,000.00
2 - Year 2	108	3,324	—	—	1,938,988.92	1,938,988.92
Total		5,398				16,531,482.61

Source: SEIP Project Data

21. **Benefit.** The project has provided 5,398 (2,074 in Year 1, 3,324 in Year 2) of the 10,000 scholarships to students from low-income families (61 percent of which were for girls). The development impact of the scholarship scheme in Ghana is evident from the findings of a randomized control trial. The study shows that scholarships have large significant impacts on completion rates and learning outcomes. Those individuals awarded scholarships were 26 percentage points (55 percent) more likely to complete secondary school, obtained 1.26 more years of secondary education, scored an average of 0.15 standard deviations greater on a reading and mathematics test, and adopted more preventative health behavior. Women who received a scholarship had 0.217 fewer children by age 25. They were also 5.5 percentage points (10 percent) more likely to have positive earnings and had significantly higher (hyperbolic sine) earnings.³³

Cost-Benefit Analysis of Pillar II Interventions

³³ Duflo, Esther, Pascaline Dupas, and Michael Kremer. 2017. *The Impact of Free Secondary Education: Experimental Evidence from Ghana*.

22. **Results Area 2 (Pillar 2) focuses on improving the quality of education in SEIP schools** through (a) strengthened school management and accountability, (b) improved mathematics and science teaching and learning, (c) expanded ICT and Internet connectivity in schools, and (d) the implementation of SPPPs. This quality package will be introduced to 107 additional schools under the AF.

School Mapping

Costs

23. The cost of the school mapping activity includes an upfront cost of developing a new platform to support school-level data, annual printing of school digests, and monitoring. The initial costs of setting up the school mapping initiative are GHS 3,117,604 with approximately GHS 4,406,020 of recurrent costs (table 3.8). The overall budget for the school mapping activities was estimated at US\$1.07 million.

Table 3.8. Costs Associated with School Mapping Activity

Activity	Total Cost (GHS)
Initial Costs	
Platform development	2,000,000
Initial data collection	184,000
Follow-up data collection	275,184
Cost of training to use the platform	658,420
Recurrent Costs	
Citizen feedback and two-factor authentication for 4,000,000 SMS (250,000) per year	2,000,000
USSD ³⁴ code for school data per year for 4 years	200,000
Maintaining the portal	144,000
Recurring training costs 3 and 4 milestones	1,239,020
Printing and distributing the digest to JHS	700,000
Updating existing content	32,000
Hosting Scholarship database	91,000

Source: Project Data, September 2016 mission documents.

24. **Benefits.** 891 SHSs (public and private) have been mapped. The mapping includes the following data:

- Schools WASSCE pass rate, enrollment data, images, teacher-to-student ratio and so on captured for every school
- Time stamp, date stamp, and geo-coordinate stamp enhance accountability
- Integration with social media fosters citizen participation and feedback
- Cutting-edge and real-time monitoring/mapping capability will transform management and supervision of schools

³⁴ Unstructured Supplementary Service Data-USSD

25. **While data are not yet available on the impact of the school mapping on education outcomes, there is an evidence on the positive impact of a similar school mapping initiative in the development of education in Tanzania.**³⁵ The study examined the experiences of six districts where school mapping exercises were carried out. The school mapping process in Tanzania was designed to do the following: (a) strengthen local capacities to collect, organize, analyze, and use educational data to make informed decision for educational development; (b) improve districts' administrative, planning and monitoring capacities with respect to education; (c) mobilize community members to participate in the development/improvement of education; and (d) establish accurate/reliable, detailed and accessible education information for use in decision making and action. Through a combination of instruments and techniques—interviews, questionnaires, focus group discussion, and document analysis, the study found that school mapping affected in varying degrees positively on education outcomes in the districts with regard to increased enrollment and attendance, decreased incidents of dropping out, improved information for decision making, and enhanced capacities of field actors to plan and take action. These findings are critical for the rollout and scale-up of the school mapping exercise under the SIEP.

i-Box

26. **One hundred and sixty i-Boxes have been procured in the first phase and 70 had been installed by end of January 2017.** The homegrown system has great potential for sharing knowledge through its hardware, platform and content development.

27. **Costs.** The costs for the i-Box can be broken down between school-level costs and system level costs (table 3.9) The upfront costs for 160 i-boxes are approximately GHS 79,730 while system-level costs for content development and transportation of the boxes is GHS 1.7 million. It is expected that the schools will bear a recurring cost of GHS 10,229 for the maintenance of the i-box.

³⁵ <http://www.sciencedirect.com/science/article/pii/S0149718901000465>

Table 3.9. Costs Associated with i-box

Activity	School-Level Costs (GHS)	System-Level Costs (GHS)
Initial Costs		
i-box (160 sets)	17,550	
Installation equipment	5,000	
Cost of installation	729	
Cost of training to use i-box, eContent, and i-campus portal (5 teachers per school)	9,677	
Solar power system	40,000	
Specialized vehicle		187,000
Content development for one subject at one level (learner text, audio-visuals and interactive). Includes training of content developers)		1,559,929
Quality assurance of i-Box and content (4 subjects of 3 sets)	4,430	
Upload of content onto i-Box (4 subjects of 3 sets)	2,344	
Recurrent Costs		
Maintenance costs	552	
Re-training for new teachers in how to use the i-box, eContent and i-campus portal (5 teachers per school)	9,677	

Source: Project Data

Benefits

28. **So far 70 i-boxes have been installed in schools and are expected to be used for science and mathematics learning.** An ongoing impact evaluation is aimed at estimating the value-added and impact of the i-box on learning outcomes. Future allocations under the AF will be assigned to i-box if there is an evidence of impact coming out of the impact evaluation in September 2017.

World Bank Value Added

29. **The World Bank's involvement is expected to bring tangible value-added in several key domains.** The World Bank's global knowledge, technical, and operational expertise will be critical in providing technical support and consensus building around system and institutional changes, which are expected to yield economic and social returns in the longer term. The World Bank's value added will continue to be significant under the AF. The World Bank has already brought substantial value added under the parent project by nudging a shift toward a results-based policy making and introducing innovative interventions such as school mapping and i-box.

30. **Furthermore, the World Bank has established itself as a trusted partner of the education sector and is well-positioned to provide technical support to the Government in the rollout of the free SHS policy.** The policy will have significant impacts on the supply and

demand of secondary education both within and outside the scope of this project and the World Bank is expected to play a key role in ensuring a quality-focused expansion of the sector.

Fiscal Sustainability

31. **The Government's strategy to increase access and improve the quality of secondary education has significant fiscal implications.** The Government would need to carefully assess the budgetary implications of the proposed free SHS policy and how it would guarantee the required funding for sustaining the operating and maintenance costs of an expanded system looking at all available resources. The following section provides an analysis of the free SHS policy and its fiscal implications.

Economic Analysis of Free SHS Policy

32. **In early 2017, the GoG committed to providing higher secondary and technical SHSs programs free of all charges** (tuition in all Ghanaian public schools remains free). The proposed free SHS policy will cover costs currently borne by families such as admission and examination registration fee, library and laboratory charges, textbooks and exercise books, teaching and learning materials, school uniforms (but not sandals), PTA, other administrative costs, and one meal for day students. According to the new SHS policy, the Government will be expected to subsidize the schools for the lost revenues and may have to cover the out-of-pocket expenditures of families as well. Board and meals for boarding students are already subsidized by the GoG.

33. **According to the 2012/13 GLSS, households spent on average GHS 458.90 annually per household member attending school.** The mean household income was estimated as GHS 16,645. On average, the total annual amount spent is higher in Accra (GHS 1,024.14) than other urban (GHS 520.53) and all the rural areas. Similarly, expenses on all educational items are higher in Accra (Greater Accra Metropolitan Area) than other urban or rural areas. In the rural areas, the average total expenses are less than the national average. Across localities, rural savannah has the lowest average total educational expenses of GHS 120.31 per household member. Findings indicate that higher proportions of educational expenditures are spent on school and registration fees (40.3 percent) and on food, boarding, and lodging (31.2 percent) while expenses on books and school supplies (9.2 percent) are lower. A complete SHS education, currently three years, would cost about 70 percent of GDP per capita, when additional clothing, exam and material fees are included.

34. **Aside from these static budget implications, the new SHS policy will undoubtedly increase the demand for secondary education.** Children from families who previously could not afford to pay for SHS will be more likely to pursue secondary education, further increasing needed budget and school places to realize the policy. Preliminary projections for 2017/2018 put general SHS enrollment at nearly 950,000 students, up from almost 870,000 in 2016/2017. Thus, more schools and classrooms will be needed, and scarcer mathematics and science teachers will have to be trained and deployed to meet this increased demand.

35. **Costs of SHS.** There is no annual cost of SHS because of the one-time fees of the first term of Year 1. These will be absorbed under the free SHS policy for first year students in

2017/18. The current per student subsidy is GHS 254.4 for day students (Sections A and B below SHS fees *3 for the three terms) and GHS 258.4 for boarding students. This is expected to go up to GHS 1075.40 for day students and GHS 2132.00 for boarding students. Table 3.10 provides all the fee items associated with SHS broken down by the categories under the free SHS policy. The fees for food of boarders will also be absorbed and day students will receive one hot meal a day. Before the free SHS policy, feeding for day students would be paid for by the student. The PTA levies will also be absorbed under the free SHS policy

Table 3.10: Costs Associated with Free SHS Policy

(A) Originally Subsidized Term Fees	Day	Boarding
General Stationery and Maintenance of Vehicle	2.00	2.00
First Aid	1.00	1.00
Building Maintenance	2.00	2.00
Sports Fees	2.00	2.00
Culture Fees	1.00	1.00
Sanitation Fee	1.50	1.50
Postage	1.50	1.50
Practical Fees	5.00	5.00
Tools for Maintenance of Machines	6.50	6.50
Furniture Maintenance	1.00	1.00
Utilities	7.30	7.30
Subtotal	30.80	30.80

(B) Newly Introduced Term Fees	Day	Boarding
Examination Fees	10.00	10.00
Entertainment	2.00	2.00
Library Fees	3.00	3.00
SRC Dues	2.00	2.00
Sports Fees	5.00	5.00
Culture Fees	3.00	3.00
Co-curricular Activities	2.00	2.00
ICT	3.00	3.00
National Science and Mathematics Quiz	5.00	5.00
Science Development	3.00	3.00
Development Levy	10.00	10.00
Utilities	6.00	10.00
Subtotal	54.00	58.00

(C) 'One-Time' Fees to Be Introduced	Day	Boarding
Admission Fee	20.00	20.00
Maintenance Fee	0.00	3.00

Cumulative Records	5.00	5.00
School Uniforms	100.00	100.00
House Dress	90.00	90.00
Physical Education Kits	30.00	30.00
School Cloth	80.00	80.00
Medical Exams	15.00	15.00
1 Supplementary Reader/3 Core Literature Books	45.00	45.00
9 Exercise Books	14.00	14.00
4 Note Books	36.00	36.00
Subtotal	435.00	438.00

D. PTA Levies (Term)	Day	Boarding
Teacher Motivation (GHS 20.00) per year	6.67	6.67
House Dues	10.00	10.00
Subtotal	16.67	16.67

E. Teaching and Learning Support for TVET Students Only	Day	Boarding
Technical Training Materials per term	10.00	10.00
Technical Drawing Instruments	60.00	60.00
Technical Drawing Board and Tee Square	30.00	30.00
Subtotal	100.00	100.00

F. Feeding Fees to Be Absorbed	Day	Boarding
Feeding Fee @ GHS 4.80 per day for 96 days (boarders)	0.00	459.20
1 Hot Meal for Day Students at GHS 1.60 per day for 70 days	112.00	
Subtotal	112.00	459.20

Annex 4: Updated Fiduciary Arrangements (including Eligible Expenditure Program)

Financial Management, Disbursements

1. Financial management arrangements were reviewed to (a) ascertain if the current SEIP arrangements are adequate to support the AF and (b) determine the level of compliance with the financial covenants by the current project.
2. The primary implementing agencies for the AF will be the MOE and GES. The MOE will be tasked with coordinating the activities of the various department and agencies. In line with the original project design, the project will have two components implemented by the MOE and GES. Within the MOE, the Director of Finance will be responsible for ensuring compliance with all fiduciary arrangements, while the Financial Controller of the GES will also be tasked with ensuring that throughout implementation, there are adequate financial management systems which can satisfactorily account for and report on the use of project funds.
3. The most recent financial management review conducted as part of the September/October 2016 mission concluded that the financial management systems at both the MOE and GES are adequate and meet the minimum requirements as per World Bank Policy Operational Policy 10.00. The project's financial management performance rating is rated as Moderately Satisfactory and the risk rating is Moderate.
4. The project has generally complied with the financial covenants of submitting acceptable financial reports including audits. In relation to the submission of audit reports, the most recent audit due was for the year-ending December 2015 which was due for submission not later than June 30, 2016. The audit report was received on June 30, 2016 which was within the six-month period after the end of the fiscal year and thus in compliance with the provisions of the Financing Agreement. The auditors issued an unqualified opinion on the accounts, but also issued a Management Letter to highlight some internal control weakness which must be addressed to minimize the risk of use of World Bank funds.

Disbursement Arrangements

5. Proceeds of the credit will be used by the project for eligible expenditures as defined in the Financing Agreement and further detailed in the respective approved annual work plans and budgets. Disbursement arrangements have been designed in consultation with the Government, after considering the assessments of the implementing agency's financial management capacities, and anticipated cash flow needs of the operation.
6. Similar to the original credit, the design features of the proposed AF cater to the requirements of a hybrid structure, all within the Investment Project Financing (IPF) instrument of the World Bank. This involves a results-based (DLI/DLR) financing approach for Component 1 and a traditional investment financing approach for Component 2.

7. For ease of implementation the project will maintain only two (2) separate U.S. dollar denominated designated accounts:

- (a). Designated Account A: for Component 1 to be implemented by the **MOE**
- (b). Designated Account B: for Component 2 as implemented by the **GES**

Modalities for Disbursements under Component 1

8. **DLIs.** The total AF resource allocation for Component 1 is US\$37 million. According to the design, disbursement under this component provides for achievement of a total of five DLIs which will be measured and valued in monetary terms for each respective year through a set of identifiable and measurable DLRs totaling 15 to be achieved over the four-year period. These DLIs are considered significant indicators of performance that will influence behavioral and policy reforms required to achieve outcomes related to increasing equitable access to senior secondary education while improving the quality of SHS.

9. Meeting the defined DLRs as identified in annex 2 and also in the Financing Agreement will constitute the primary basis for triggering credit disbursements under the Project's EEP that is, Component 1. The total number of DLR's have been individually priced, and as such, the eligible disbursement amount will be the sum of the achieved DLRs multiplied by the unitary monetary value (price) according to the Disbursement Schedule.

10. The underlying principle will be to disburse, after project effectiveness, and based on a half-year forecast of the funding required to potentially achieve the set of DLRs in each year, an advance to the MOE. Subsequently on a half-yearly basis, the borrower will provide satisfactory documentary evidence including (a) acceptable interim financial reports (IFRs); (b) EEP spending reports; and (c) evidence of independent verification of the set of DLRs for that particular year which have been achieved. These reports will then form the basis of documenting for the advances made. Subsequent advances will be made based on the approval by the World Bank of the next six months forecast of expenditure.

11. However, it must be noted that in subsequent years and beyond the first year, only one DLR relating to the prior year, can remain unmet to allow for disbursements of any further advances against the potential for meeting future period DLRs. This means that while noncompliance with a DLR in a period will result in funds associated with that DLR being withheld, disbursement associated with the achievement of other DLIs will not be affected. Where the MOE is able to meet any of the DLRs, beyond the value of the total advances granted, the borrower can request for such values as a reimbursement into any government account other than the Designated Account.

12. Where achievement of a DLR cannot be certified, an amount equivalent to the unitary DLR price will be withheld or considered as undocumented and outstanding obligation on the Borrower. This amount will be paid at any later date, during project life, and at the discretion of the World Bank's task team when such achievement can be verified. The task team may consider that a later achievement of the DLR performance would not qualify for disbursement against the

unmet DLR if it determines that the on-schedule achievement of the DLR is critically fundamental to achieving the overall objectives of the project.

13. **Government EEP:** The overall government program of expenditures to be supported under the component is defined as the EEP. For the purposes of the AF and as in the original project, the selected EEP item will be the total compensation of employees and operating cost for secondary education in the Chart of Accounts of the Government and as presented in the approved budget estimates and actuals as per the accounting reports of the Controller and Accountant General. The selected EEP is not a procurable item—the expenditure will not attract any procurement actions under the World Bank’s Procurement Guidelines. Such an EEP would be verified by the independent verification agency as part of the documentation for achieving DLRs.

Table 4.1. SHS Actual and Projected Budget (2014–2021)

GIFMIS Chart of Account Codes	BUDGET CLASSIFICATION	ACTUAL BUDGET				PROJECTED			
		2014	2015	2016	2017	2018	2019	2020	2021
		GHS	GHS	GHS	GHS	GHS	GHS	GHS	GHS
0230304	Compensation (SHS)	638,737,464	632,850,371	838,852,492	801,451,365	841,523,933	885,338,937	930,197,078	976,092,089
0230308	Compensation (TVET)	51,107,916	48,791,452	54,061,733	55,200,216	57,960,227	59,119,431	61,484,209	65,173,261
	Total	689,845,380	681,641,823	892,914,225	856,651,581	899,484,160	944,458,368	991,681,286	1,041,265,350
	US\$ equivalent @ GHS 4.2/US\$	164,248,900	162,295,672	212,598,625	203,964,662	214,162,895	224,871,040	236,114,592	247,920,322

Note: GIFMIS: Ghana Integrated and Financial Management Information System

Table 4.2 Eligible Expenditure Program Sector Budget Lines

Eligible Expenditure Program – Ministry of Education/Ghana Education Service					
Agency – Budgetary Institutions	Line ministry / Institution code	Item Code & Description	Program Code (Secondary)	SUB Program Code	Program Description
GES	02303	2111001 Salaries	023003	0230031	SHS
GES	02303	2111001 Salaries	023003	0230032	TVET

Source: GIFMIS

Modalities for Disbursements Under Component 2

14. **Funds flow and disbursement arrangements.** All other components (other than Component 1) will be implemented under the principles of traditional IPF arrangements using the report-based disbursement arrangements. Under this approach, the allocated resources will be advanced to the GES's Designated Account on the basis of an approved six-monthly forecast of expenditures, and replenished quarterly for further periods of six months using IFRs prepared by the GES and or generated from the GIFMIS. The IFRs (including the 'procurements subject to prior reviews' and 'designated account reconciliation statement') will serve as the basis for requesting for advances and also for documentation. The initial disbursement will be based on the consolidated expenditure forecast for six months, subject to the World Bank's task team leader and Financial Management Specialist approval of the estimates. Subsequent replenishments of the Designated Account would be done quarterly based on the forecast of the net expenditures for the subsequent half-year period.

15. It must be emphasized that other than activities under Component 1, for all other project activities under Component 2, where applicable, the World Bank Procurement Guidelines shall govern all procurement activities.

Disbursement Categories

16. Based on the project design there will be only two disbursement categories. The disbursement category for Component 1 will be DLI/DLR-based and the disbursement category expense line will be for the selected EEP—that is, Secondary Education Compensation and Operating Cost as per GoG's chart of accounts/budget classification code. For component Two, there will be a single category - 'goods, works, consulting services, non-consulting services, training, and operating expenses.'

Table 4. 3. Disbursement Categories

Category	Amount of the Credit Allocated (expressed in US\$)	Amount of the Credit Allocated (expressed in SDR)	Percentage of Expenditure to be Financed (inclusive of Taxes)
Eligible Expenditure Program under Part A of the Project	37,000,000	26,730,000	Up to 100% of each DLR amount set out in the DLI Schedule
Goods, non-consulting service, consulting services, Training and operating cost under all Parts (except Part A)	3,000,000	2,170,000	100%
TOTAL	40,000,000	28,900,000	

Conclusion

17. Based on the review of the current arrangements and the proposed design of the AF, there will not be any changes in the financial management arrangements as they have proved adequate during SEIP implementation to be continued to support the implementation of the AF.

Procurement Management

18. Procurement for the proposed AF under Component 2 will be carried out in accordance with the World Bank's Procurement Regulations for IPF Borrowers dated July 1, 2016 and applicable to IPF herein after referred to as 'Regulations'. The project will be subject to the World Bank's Anti-Corruption Guidelines, dated October 15, 2006, revised in January 2011 and as of July 1, 2016. Modalities for RBF applies to Component 1 and hence the above arrangements do not apply.

19. As per the requirements of the Regulations, a Project Procurement Strategy for Development (PPSD) has been developed by the MOE and the GES with support and guidance from the World Bank. The document has been reviewed by the World Bank and found to be acceptable. Based on the PPCSD, the Procurement Plan for the AF has also been developed and accepted by the World Bank. The Procurement Plan will be updated annually or as required to reflect the actual project implementation needs. The summary of the PPCSD is provided below.

20. **Summary of the Project Procurement Strategy for Development (PPSD).** The education infrastructure and services market is vibrant. There are local and experienced service providers and contractors, willing to take part in competitive procurement to win bids and deliver on them. The supply position of these service providers are for low risk and low volume procurement. The Client/Borrower has also approached the market adequately in the past in implementing the parent project and have adequate knowledge of the market.

21. **Applicable guidelines.** Procurement will be carried out, according to the New Procurement Framework, in accordance with the (a) World Bank Procurement Regulations for IPF Borrowers: Procurement in Investment Project Financing Goods, Works, Non-Consulting and Consulting Services, dated July 2016; (b) the 'Guidelines on Preventing and Combating Fraud and Corruption in Projects financed by IBRD Loans and IDA Credits and Grants', dated October 15, 2006, revised in January 2011; and (c) the provisions stipulated in the Legal Agreement. The bid documents will be based on the Standard Procurement Document, recently enhanced with the Environment, Social Health, and Safety.

Procurement Implementation Arrangements and Capacity Assessment

22. The procurement implementation arrangements remain unchanged. The implementing agency will be the MOE, responsible for the project's coordination, procurement, contract management, financial management, and compliance with safeguards policies, in collaboration with the GES and other relevant agencies under the MOE.

23. **Procurement capacity assessment.** In accordance with Operations Core Services Procurement Policy and Services guidelines and Procurement Risk Assessment and Management System, the summary assessment of the procurement risk is Substantial for the project and the prior review thresholds have been set to reflect this rating. Procurement post reviews and technical audits will be carried out annually by the Bank Procurement Specialist and/or independent auditors and based on the findings of the reviews, the prior review thresholds will be reviewed. The main risks identified are the following: (a) the use of the National Procurement Framework (NPF); (b) inadequate monitoring; (c) weak contract management; (d) delays in

processing procurement and payments; (e) some political interference; and (f) fraud and corruption. The proposed mitigation will include the World Bank to organize and deliver training session for the GES and MOE, on the NPF before effectiveness, with hands-on support to the implementing agencies to ensure proper use of the borrower regulations and intensify training in procurement and contract management.

24. Table 4.4 depicts the thresholds and procurement methods to be used under the project reflecting a Substantial risk rating:

Table 4.4. Procurement Thresholds and Methods

RISK RATING	Prior Review Threshold in (US\$ '000)					Procurement Method s Thresholds (in US\$'000)							
	Consultants				Single Source & Direct Contract	Works			Goods, IT and non-consulting services			Shortlist of National Consultants	
	Works	Goods, IT Systems+ Non Con. Serv	Firms	Individuals		Open International or ICB	Open National or NCB	Request for Quotation/ National Shopping	Open International or ICB	Open National or NCB	Request for Quotation/ National Shopping	Consulting services	Engineering & construction supervision
SUBSTANTIAL	≥\$10,000	≥\$2,000	≥\$1,000	≥\$300	≥\$100	≥15000	<15000	≤200	≥3000	<3000	≤100	<300	≤500

25. These thresholds are for the purposes of the initial Procurement Plan for the first 18 months. The thresholds will be revised periodically based on reassessment of risks. All contracts not subject to prior review will be post reviewed.

26. **Procurement Plan.** The borrower prepared and the World Bank cleared the Procurement Plan which covers the first 18 months of project implementation. The Procurement Plan will be updated in agreement with the World Bank project team at least annually or, as required, to reflect the actual project implementation needs and improvement in institutional capacity.

27. Systematic Tracking of Exchanges in Procurement will be the primary software to be used to submit, review, and clear all Procurement Plans and prior review procurements. In preparing the Procurement Plan, at all times, the prior review and methods thresholds associated with the recommended/prevaling procurement risk rating are applicable.

Table 4.5. Activities to be Financed by the AF

Activity Reference No./Description:	Review Type	Category	Cost Estimate (US\$)	Expected Bid/Proposal Submission Deadline (YY/MM/DD)	Expected Contract Completion Date (YY/MM/DD)
Consultancy for end of project financial review	Post	Consultancy	150,000	18/02/06	21/09/30
Consultancy for project completion report	Post	Consultancy	250,000	18/10/04	21/02/07
Consultancy for independent verification of in-school activities	Post	Consultancy	160,000	18/10/04	20/09/07
Consultancy for end of project technical review	Post	Consultancy	110,000	19/02/02	19/05/17
Consultancy for end of project procurement review	Post	Consultancy	120,000	18/02/06	21/09/30
Printing of 11,500 numbers School Mapping Digest for 2017/2018	Post	Goods	170,000	18/11/30	19/02/21
Printing of 845 numbers SPP training manuals	Post	Goods	3,000	17/06/20	17/08/09
Printing of 1,600 numbers Science and Mathematics modules	Post	Goods	12,000	17/02/17	17/08/09

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