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June 13, 2019

**Closing Date: Tuesday, July 2, 2019
at 6:00 p.m.**

FROM: Vice President and Corporate Secretary

Liberia - Improving Results in Secondary Education Project

Project Appraisal Document

Attached is the Project Appraisal Document regarding a proposed grant to Liberia for an Improving Results in Secondary Education Project (IDA/R2019-0217/1), which is being processed on an absence-of-objection basis.

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Report No: PAD3112

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT

IN THE AMOUNT OF SDR 34.0 MILLION
(US\$47.0 MILLION EQUIVALENT)

TO THE

REPUBLIC OF LIBERIA

FOR THE

IMPROVING RESULTS IN SECONDARY EDUCATION PROJECT

June 11, 2019

Education Global Practice
Africa Region

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CURRENCY EQUIVALENTS

Exchange Rate Effective April 30, 2019

Currency Unit = Liberian Dollar

169.5 = US\$1

SDR 0.72162568 = US\$1

FISCAL YEAR

July 1 – June 30

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Country Director: Henry G. R. Kerali

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ABBREVIATIONS AND ACRONYMS

ASC	Annual School Census
AWP&B	Annual Work Plan and Budget
BoQ	Bills of Quantity
CAG	Comptroller and Accountant General
CDD	Community-driven Development
CEA	Community Empowerment Approach
CEO	County Education Officer
CERC	Contingent Emergency Response Component
CESMP	Contractor's Environmental and Social Management Plan
CPD	Continuous Professional Development
CPF	Country Partnership Framework
CSA	Civil Service Agency
DA	Designated Account
DE4A	Digital Economy for Africa
DEO	District Education Officer
DFIL	Disbursement and Financial Information Letter
DHS	Demographic and Health Survey
DLI	Disbursement-Linked Indicator
DLR	Disbursement-Linked Result
DMI	Deputy Minister of Instruction
DP	Development Partner
ECD	Early Childhood Development
ECE	Early Childhood Education
EEP	Eligible Expenditure Program
EGRA	Early Grade Reading Assessment
EMIS	Education Management Information System
ESA	Education Sector Analysis
ESDC	Education Sector Development Committee
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EU	European Union
EVD	Ebola Virus Disease
FA	Financing Agreement
FCV	Fragility, Conflict and Violence
FGM/C	Female Genital Mutilation/Cutting
FM	Financial Management
FY	Fiscal Year
G2B-ESP	Getting to Best in Education - Education Sector Plan
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GER	Gross Enrollment Rate
GIS	Geographic Information System
GMT	Grassroots Management Training
GOAL	Girls' Opportunities to Access Learning

GoL	Government of Liberia
GPE	Global Partnership for Education
GPE-BEP	GPE-financed Basic Education Project
GPI	Gender Parity Index
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
HCI	Human Capital Index
HIES	Household Income and Expenditure Survey
ICB	International Competitive Bidding
ICT	Information and Communications Technology
IDA	International Development Association
IFR	Interim Financial Report
IPF	Investment Project Financing
IPS	International Procurement Specialist
IRISE	Improving Results in Secondary Education Project
IRR	Internal Rate of Return
ISR	Implementation Status Results Report
IT	Information Technology
IVA	Independent Verification Agency
IVR	Independent Verification Report
JSDF	Japan Social Development Funded
JSS	Junior Secondary School
LEG	Local Education Group
LISGIS	Liberia Institute of Statistics and Geo-Information Services
LJHSCE	Liberia Junior High School Certificate Examination
M&E	Monitoring and Evaluation
MCSS	Monrovia Consolidated School System
MFDP	Ministry of Finance and Development Planning
MGCSP	Ministry of Gender, Children and Social Protection
MICS	Multiple Indicator Cluster Survey
MoE	Ministry of Education
MPW	Ministry of Public Works
NASSCORP	National Social Security and Welfare Corporation
NGO	Non- Governmental Organizations
NER	Net Enrollment Rate
NPV	Net Present Value
NSIS	National School Infrastructure Strategy
OER	Open Educational Resources
OP/BP	Operational Policy/Bank Procedure
PAD	Project Appraisal Document
PAPD	Pro-poor Agenda for Prosperity and Development
PCU	Project Coordination Unit
PDO	Project Development Objective
PDT	Project Delivery Team
PFMU	Project Financial Management Unit
PIM	Project Implementation Manual

PIN	Personal Identification Number
PPSD	Project Procurement Strategy for Development
PQTR	Pupil-qualified Teacher Ratio
PTA	Parent teacher Association
PTR	Pupil-teacher Ratio
PU	Procurement Unit
RAP	Resettlement Action Plan
RBF	Results-based Financing
RF	Results Framework
RPF	Resettlement Policy Framework
RTTI	Regional Teacher Training Institute
SCD	Systemic Country Diagnostic
SCR	Student Classroom Ratio
SDG	Sustainable Development Goal
SDR	Special Drawing Rights
SEA	Sexual Exploitation and Abuse
SESA	Secondary Education Sector Analysis
SGBV	Sexual and Gender-Based Violence
SIP	School Improvement Plan
SMC	School Management Committee
SMT	Senior Management Team
SQA	School Quality Assessment
SRGBV	School-related Gender-Based Violence
SSS	Senior Secondary School
STEM	Science, Technology, Engineering and Math
STEP	Systematic Tracking of Exchanges in Procurement
TA	Technical Assistance
TLM	Teaching and Learning Materials
ToR	Terms of Reference
TSR	Textbook-student Ratio
TTI	Teacher Training Institution
TVET	Technical and Vocational Education and Training
TWG	Technical Working Group
UL-TC	William V.S. Tubman Teachers College, University of Liberia
USAID	United States Agency for International Development
VAC	Violence against Children
VPI	Vice Principal of Instruction
WA	Withdrawal Application
WAEC	West African Examinations Council
WASSCE	West African Senior Secondary Certificate Examination
WB	World Bank
WDR	World Development Report



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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Liberia	Improving Results in Secondary Education (IRISE)	
Project ID	Financing Instrument	Environmental Assessment Category
P164932	Investment Project Financing	B-Partial Assessment

Financing & Implementation Modalities

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input checked="" type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input checked="" type="checkbox"/> Fragile State(s)
<input checked="" type="checkbox"/> Disbursement-linked Indicators (DLIs)	<input checked="" type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
02-Jul-2019	30-Nov-2023

Bank/IFC Collaboration

No

Proposed Development Objective(s)

The Project Development Objective (PDO) is to improve equitable access to, and quality of, secondary education.

Components

Component Name	Cost (US\$, millions)
----------------	-----------------------



Improving access and learning environment at the senior secondary level	14.40
Increasing opportunities for girls to transition to and complete senior secondary education	5.00
Improving quality and relevance of senior secondary education	19.00
Capacity building, technical assistance, project coordination, and monitoring and evaluation	8.60
Contingency Emergency Response Component (CERC)	0.00

Organizations

Borrower: Republic of Liberia
 Implementing Agency: Liberia Ministry of Education

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	47.00
Total Financing	47.00
of which IBRD/IDA	47.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	47.00
IDA Grant	47.00

IDA Resources (in US\$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
National PBA	0.00	47.00	0.00	47.00
Total	0.00	47.00	0.00	47.00

Expected Disbursements (in US\$, Millions)



WB Fiscal Year	2020	2021	2022	2023	2024
Annual	4.60	7.82	13.41	15.34	5.83
Cumulative	4.60	12.42	25.83	41.17	47.00

INSTITUTIONAL DATA

Practice Area (Lead)

Education

Contributing Practice Areas

Fragile, Conflict & Violence

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

Gender Tag

Does the project plan to undertake any of the following?

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF	Yes
b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment	Yes
c. Include Indicators in results framework to monitor outcomes from actions identified in (b)	Yes

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Substantial
2. Macroeconomic	● High
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Substantial
5. Institutional Capacity for Implementation and Sustainability	● Substantial
6. Fiduciary	● Substantial
7. Environment and Social	● Moderate



8. Stakeholders	● Moderate
9. Other	
10. Overall	● Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

Yes No

Does the project require any waivers of Bank policies?

Yes No

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Performance Standards for Private Sector Activities OP/BP 4.03		✓
Natural Habitats OP/BP 4.04		✓
Forests OP/BP 4.36		✓
Pest Management OP 4.09		✓
Physical Cultural Resources OP/BP 4.11	✓	
Indigenous Peoples OP/BP 4.10		✓
Involuntary Resettlement OP/BP 4.12	✓	
Safety of Dams OP/BP 4.37		✓
Projects on International Waterways OP/BP 7.50		✓
Projects in Disputed Areas OP/BP 7.60		✓

Legal Covenants

Sections and Description

The Recipient shall not later than 12 months from the Effectiveness Date prepare and adopt a National School Infrastructure Strategy satisfactory to the Association. (Section IV, A)



Conditions

Type	Description
Effectiveness	The Recipient through the MoE has prepared and adopted a Project Implementation Manual in form and substance satisfactory to the Association (Article III, 4.01)
Disbursement	No withdrawal shall be made by the Recipient in connection with Eligible Expenditures Program under Category 2 (Parts 2 and 3) unless and until the Recipient has furnished evidence satisfactory to the Association that an IVA with qualifications and experience and under terms of reference satisfactory to the Association has been recruited (Section III, B, 1 (c))
Disbursement	For Eligible Expenditures under Categories 3 and 4, unless and until a School Grants Manual in form and substance satisfactory to the Association has been developed.



I. STRATEGIC CONTEXT

A. Country Context

1. **Situated in West Africa, the Republic of Liberia shares borders with Côte d'Ivoire, Guinea and Sierra Leone.** It has an estimated population of approximately 4.7 million people, and is growing rapidly with a fertility rate of 4.6 in 2015. More than two-thirds of the population is under the age of 35; with nearly half of the population living in urban areas. The country has significant natural resources including iron ore, diamonds, natural rubber, timber and agriculture-conducive land – yet its economy is largely dependent on external resources as its domestic revenue is very limited. Liberia's economy is bifurcated where formal economic activity is focused on the export of its two main commodities of rubber and iron ore and thus subject to global volatility, yet the majority of Liberians are engaged in informal economic activity (e.g., subsistence agriculture, piecemeal, small scale shops and services).

2. **As a country in fragility, conflict and violence (FCV), Liberia's human development outcomes are among the lowest in the world as evidenced by the country's ranking on the Human Development Index¹ and on the more recent 2018 Human Capital Index (HCI).** The HCI – a composite index based on measures of health, education and nutrition² – estimates that a child born in Liberia today could expect to live to the age of 62, receive only 4.4 years of schooling, and be 32 percent as productive as he/she would have been had he/she had access to full health and education -that would have allowed them to reach their full “human capital” potential. Liberia is also among the world's poorest countries with more than one-half of the population (51 percent) living in poverty and having a gross domestic product (GDP) per capita of US\$370. In 2016, an estimated 2.2 million people were unable to meet their basic food needs and an estimated 670,000 people were living in extreme poverty.

3. **Since the end of the last civil war in 2003, Liberia has experienced a decade of relative political stability and economic growth,** supported by a United Nations Peacekeeping Mission³ and development partners (DPs). However, in 2014-2015, the country experienced a major crisis with the onset and spread of the Ebola Virus Disease (EVD). The EVD crisis combined with the protracted fall in global commodity prices greatly impacted the country's economy. Liberia has been on a slow pace towards economic recovery since the EVD crisis and the GDP growth in 2017 was limited. Headline inflation reached an all-time high of 28.5 percent by end December 2018, fueled by significant depreciation of the Liberian dollar against the US dollar and monetary expansion. The current account deficit remained high (23.3 percent of GDP in 2018) as improvements in the trade balance were offset by the decline in donor transfers. Approximately 75 percent of the population under the age of 35 was unemployed. There also were acute rural-urban disparities in socio-economic status with poverty rates higher in rural areas than in urban ones (68 percent compared to 55 percent, respectively). Access to services including healthcare, education, and public utilities is significantly more limited in rural areas – for example, in 2016 only 1.3 percent of the rural population having access to electricity compared to 34 percent of those living in urban areas.

¹ Ranking 181 out of 189 countries and territories. Human Development Index (2017). United Nations Development Programme.

² The World Bank HCI measures the amount of human capital that a child born today can expect to attain by age 18. It conveys the productivity of the next generation of workers compared to a benchmark of complete education and full health. It is constructed for 157 countries thus far and made up of five indicators: the probability of survival to age five, a child's expected years of schooling, harmonized test scores as a measure of quality of learning, adult survival rate (fraction of 15-year olds that will survive to age 60), and the proportion of children who are not stunted.

³ UNMIL – United Nations Mission in Liberia, as the United Nations Peace Keeping forces were called, declared their mission complete as of March 30, 2018. Since then, Liberia's security has been under the authority of its own military personnel.



4. **Following a peaceful transition of power in early 2018, the new government has developed a pro-poor strategic vision, placing human development among its priorities.** Its strategic plan: “*Pro-poor Agenda for Prosperity and Development (2019-2023)*” (PAPD) highlights the aim of accelerating job creation with improvements in the business environment to be brought about by increasing investment in infrastructure, increasing access to finance, and addressing market failures (coordination failures, weak property rights, etc.) Its new draft national policy on information and communications technology (ICT) (2019-2024) seeks to support economic development through fully integrating ICT that ensures total social inclusion for all Liberians. Central to the government’s agenda is a focus on developing its human capital and building the capacity of the country’s youth to reach their potential - in turn, creating a qualified and skilled labor force that can contribute to and participate meaningfully in the economy.

B. Sectoral and Institutional Context

5. **Basic education, covering primary (grades 1 to 6) and junior secondary education (grades 7 to 9), is compulsory and tuition free in Liberia.** The system is heterogeneous with various types of schools operating across the country – including public, community, mission, and private schools. Education services are the responsibility of the Ministry of Education (MoE) with the exception of schools in Monrovia (the capital of Liberia) which are under the administration of the Monrovia Consolidated School Systems (MCSS). The majority of children enrolled in pre-primary, primary and junior secondary schools (JSS) attend public schools, the majority of senior secondary school (SSS) students are enrolled in private schools. According to the latest available school census data, Liberia has made significant progress in a number of critical areas in the sector – enrollment has increased five-fold from 300,000 to 1.5 million students between 1981 and 2015, the teaching workforce has more than doubled in the last 10 years from 26,359 teachers in 2007/2008 to 63,396 teachers in 2015/2016, and girls’ enrollment has also increased approaching gender parity (with a gender parity index (GPI) of 0.9) at the primary level. Furthermore, completion rates have improved with the grade 6 completion rate⁴ having increased from 44 percent in 2007 to 55 percent in 2013 (Demographic and Health Surveys (DHS) 2007, 2013).

6. **Despite these achievements, retention and completion rates are low across all levels – and for those who stay in school — there are low learning outcomes.** Survival rates in basic education decrease between each cycle. Of those students who enroll in basic education 69 percent survive to grade 6 and 59 percent to grade 9. Due to limited availability of quality data, it is not possible to know Liberia’s actual secondary school completion rate. A few proxy indicators provide some evidence that the numbers are low: of the 105,000 students enrolled in SSS in 2015/2016, around one-third (around 30,000) sat for the West African Senior Secondary Certificate Examination (WASSCE) but many among them were repeating the exam. For those who remain in school, learning outcomes are low at all levels. Using the Harmonized Test Score component of the HCI, the average child in Liberia who starts school at age four may likely complete 4.4 years of schooling but factoring in what children actually learn in Liberian schools, his/her expected years of learning is reduced to 2.3 years. In a 2010/2011 oral reading fluency sub-section of the early grade reading assessment (EGRA), around 35 percent of grade 2 students and 17 percent of grade 3 students could not read a single word.

7. **Senior secondary education, in particular, faces several major challenges including: (i) low and inequitable access, retention and completion rates, especially among girls and rural youth; and (ii) poor quality and relevance of education.** These issues are described in further detail below.

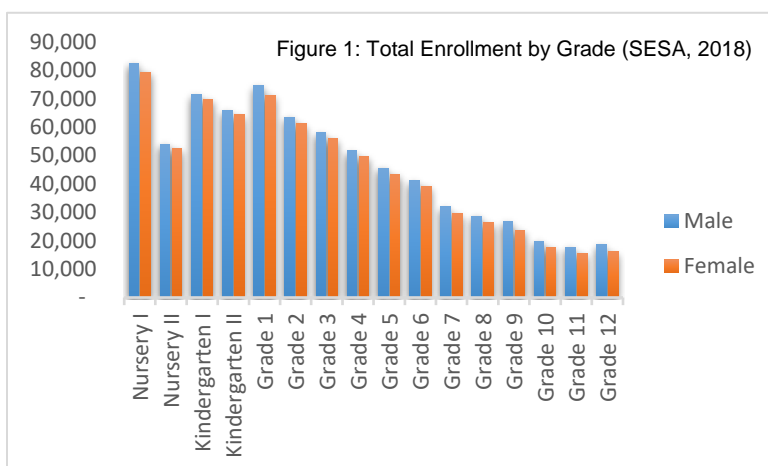
⁴ In the DHS, the completion rate is measured for respondents between the ages of 15 and 24.



Low and inequitable access, retention and completion rates

8. Though there has been an increase in coverage at the secondary level, Liberia’s senior secondary gross enrollment rate (GER) is low at 39 percent (2015/2016 annual school census) with enrollment reducing even further from the JSS GER of 53 percent – reflective of a low survival rate to the completion of SSS. Figure 1 below shows a steady drop in enrollment numbers from about 145,000 in grade 1 (many of whom are likely overage) to approximately 35,000 enrolled in grade 12, including repeaters.⁵

9. There are also important disparities in access to senior secondary schooling in terms of location and gender. The large majority of schools are geographically concentrated with six out of 15 counties having fewer than 5 percent of all SSS. The large majority (98 percent) of senior secondary level schooling is provided in schools which cover other levels of schooling (i.e., primary and junior secondary). Of 640 schools which offer senior secondary education, only 13 are separate SSS. Nearly half of senior secondary schooling is provided by private schools and nearly one quarter provided by mission schools – with the remaining senior secondary schooling being provided by public schools (22 percent) and community schools (2 percent). Further, the provision of senior secondary schooling is limited in the country overall with 25 of the country’s 124 districts not having any senior secondary level schooling.⁶ Schooling is also highly concentrated in urban counties. For example, Montserrado county (home to one-third of the Liberian population) has 53 percent of secondary schools in the country. In many instances, particularly in urban areas, SSS that do exist are severely overcrowded with more than 80 students per classrooms. While the secondary level GER is 47 percent nationally, the rate varies considerably across counties, reaching just 9 percent in River Cess, for example. These disparities are evident in examination trends with more than 50 percent of those who sit for the WASSCE being from Montserrado County while 12 out of the remaining 15 counties each account for fewer than 5 percent of students who sit for this exam.



10. **Gender disparities.** There are important disparities in access, retention and completion by gender, that are particularly evident in more disadvantaged areas. The national GPI of 0.9 masks significant disparities among counties, with six counties having a GPI of less than 0.60. In addition to supply-side issues, there are important demand-side constraints affecting girls’ enrollment, retention, and completion rates. Unlike primary and junior secondary which are tuition-free, enrollment fees are required at the senior secondary level. While the formal fees are low, the informal fees (to cover the costs of uniforms, textbooks, extra-curricular requirements, graduation fees, transport, etc.), can cause girls to drop out of school or make it difficult for them to attend consistently. Female retention is low with only 15 girls out of every 100 girls who begin primary school advancing to SSS (grade 10). In Liberia, transitioning to grade 10 does not increase the likelihood of graduating from grade 12. Dropout rates during grades 10, 11 and 12 remains a critical and pressing issue. In addition to poverty and the high opportunity costs of attending school (for example, many girls contribute to their family’s income or are given the responsibility for caring for younger siblings or children), other factors driving high dropout and low retention

⁵ Secondary Education Sector Analysis (SESA) (2018). Draft. World Bank.

⁶ On average, there are an estimated 1,000 students in the senior secondary age group in each of the 25 districts.



rates among females include: a lack of support at school and/or at home to continue with education; a lack of school safety and limited if any gender-appropriate facilities (latrines); and pregnancy and early marriage. According to the Liberia DHS and Multiple Indicator Cluster Survey (MICS) (2016), early marriage is prevalent with 36 percent of young women married before the age of 18.⁷ An estimated 30 percent of girls become pregnant by the age of 18. Female genital mutilation/cutting (FGM/C) is also prevalent with approximately 50 percent of Liberian girls and women aged 15 to 49 years having undergone FGM/C. In certain counties, the reported rates are as high as 80 percent.⁸

11. Schools are often not a safe environments for girls, with one study finding that 32 percent of girls, who had dropped out, reported feeling unsafe in school.⁹ Another study found that 30 percent of female students were forced to have sex against their will.¹⁰ Girls and young women are victims of sexual exploitation and abuse (SEA) – often being forced to engage in transactional sex to have their basic needs met, including the cost of transportation to school and money to cover school fees. Among those girls who are able to access an education, school environments can impede their attendance including the lack of gender-appropriate latrines and water, sanitation and hygiene (WASH) facilities. By grade 7, 90 percent of girls are overage while by grade 9, 83 percent of girls are overage. This percent drops to 77 percent by grade 12. This decrease does not reflect an improvement but, instead, that many girls, many of whom are overage, have dropped out by the time they reach grade 9 and an even larger number by grade 12.

Poor quality and relevance

12. **Student learning outcomes, particularly at the senior secondary level, are of serious concern.** In 2017, at the junior and senior secondary levels, pass rates on the national exams (Liberia Junior High School Certificate Examination (LJHSCE) and Liberia Senior High School Certificate Examination (LSHSCE)) offered at the end of these levels were 58 percent and 59 percent, respectively – with student performance higher among those attending private school than public school. Out of the more than 30,000 students who sat for the West Africa Examination Council (WAEC)'s 12th grade examinations in 2018¹¹, almost none received a score in the 1st (excellent) or 2nd (good) division. These figures, however, are not representative of the levels of student learning nationally as these exams are not required and therefore many students do not take them. As such, national learning outcomes of all students are likely to be much lower. Poorer performance of public and community SSS in comparison with private schools is of particular concern to the Government. Further, significant limitations in data which exist across the system impede an accurate and more in-depth understanding of the students' poor learning outcomes, especially in secondary education. Although the entire education system faces multiple challenges, those facing senior secondary education are becoming more pressing yet they receive less attention and investment by the Government and DPs.

⁷ Percentage of women aged 20 to 24 years who were first married or in union before age 18. Source: UNICEF global databases, 2018.

⁸ UNICEF Statistical Profile on FGM in Liberia based on DHS 2013 data.

⁹ Street Child Consultations (2016).

¹⁰ Norwegian Agency for Development Cooperation (NORAD) (2014): Passing the test.

¹¹ The exit examination for completing senior secondary education (grades 10-12) across WAEC member countries.



13. The poor quality and limited relevance of secondary education can be attributed to several factors:

- a. **Poor learning environment.** More than one-quarter of Liberia's SSS do not have solid construction with the figure reaching 50 percent in some counties. In such schools, heavy rainfall, lack of safe water supply, non-working or non-existent latrines compromise the students' learning environment while also exposing them to potential health risks. Nationally, 23 percent of all schools do not have any handwashing facilities; just under half of school toilets are functional and only one-quarter of toilets are designated for female students. Further, toilet-student ratios are high – being 1:95 at the senior secondary level¹². Access to electricity at the school level is also low, with only 14 percent of all schools in the country reporting being connected to either the local electrical grid, the national electrical grid or a generator. A large number of schools lack secure fencing to enhance safety of students and overcrowding is a major issue.

Apart from basic facilities, schools in Liberia also struggle to provide adequate opportunities for *learning by doing*. Of the 640 (junior and senior) public and community secondary schools across the country, only 15 percent report having a functioning science laboratory (with equipment and supplies or in use), with varying disparities across counties. Approximate 22 percent of Montserrado County secondary schools have functioning laboratories while 10 of the remaining 14 counties have few if any laboratories (Maryland has 2 percent, and River Gee has none). Further, only 6 percent of all schools in the country (15 percent of all secondary schools) report having a computer laboratory. Without such basic facilities, Liberia students' understanding and knowledge in science is based solely on memorization and textbook knowledge.

- b. **Poor quality teaching.** Liberia's teacher development system faces two main challenges. First, the current supply of qualified teachers for secondary education is inadequate. Pre-service teacher training for senior secondary teachers is only offered by two public universities¹³ and existing programs do not have the capacity to equip future teachers with the requisite pedagogical skills and content knowledge to teach effectively (including digital skills) at the secondary level. Second, the existing stock of the teaching force is insufficiently trained and receives only limited if any support for effective teaching and learning. In Liberia's SSS, only 40 percent of teachers have the minimum qualifications (a university degree or an 'A Certificate') required to teach at that level as described in the Government's Education Policy. The national pupil-teacher ratio (PTR) at the senior secondary level is 16:1, but the pupil-qualified teacher ratio (PQTR) is 48:1. The lack of a systematic approach to in-service training for teachers further drives poor and outdated teaching practices. Teaching focuses primarily on memorization and rote learning with little emphasis on helping students acquire 21st century skills, including digital skills, which are critical for the job market. Further, the low quality of teaching in science and math is of particular concern – evidenced by both the lack of teachers in these subjects and, more importantly, the low student scores in these two areas from WASSCE.
- c. **Few qualified teachers in rural areas and public schools.** Teacher recruitment, deployment and management is severely imbalanced among secondary schools with most teachers, and particularly the qualified ones, teaching for private schools and/or in urban areas (Montserrado or other larger county capitals). In 2015-2016, Montserrado county registered 4,224 teachers serving in SSS, while River Cess

¹² SESA (2018). Draft. World Bank.

¹³ It is acknowledged that the private university - African Bible College – also offers pre-service teacher training for senior secondary schools in the country.



and River Gee (among the poorest counties) had only 16 and 14 teachers, respectively. Without a proper incentive structure and management strategy, there are fewer qualified teachers, in particular there are few qualified teachers (in math and science) in rural areas, given the poor quality of roads, limited transportation options and a dearth of safe housing.

- d. **Inefficient teacher management.** Recruitment of new qualified teachers is also a challenge since the MoE does not have additional approved positions: approximately 210 secondary teachers reach mandatory retirement age (65 years of age)¹⁴ annually but, in recent years, many have remained in the profession as financial constraints hinder their retirement. Currently, there are an estimated 1,200 teachers who are past the mandatory retirement age, but who are still on payroll. Yet, the Government is unable to move them into retirement, as it cannot provide a separation payment to these teachers (which would total approximately US\$1.2 million based on available information on tenure/years in service) which is required by law. Removing teachers who have passed the mandatory retirement age 65 from the payroll registry would free up significant fiscal space on the payroll (an estimated US\$250,000 monthly) for the MoE to hire new qualified teachers. Additionally, anticipating this attrition would allow for proper planning for effective recruitment and deployment. For example, at present, approximately 12 percent of secondary teachers are within five years of retirement age (65 years). Data shows that the rural counties have older teacher populations, an indication of the difficulties of deploying newly qualified teachers to rural areas and the importance of developing a comprehensive teacher management strategy.
- e. **Insufficient and misaligned teaching and learning materials.** There is limited alignment between teacher training, secondary school curriculum and teaching and learning materials (TLMs) and insufficient access to textbooks among students with an estimated textbook-student ratio (TSR) of 1:16. The country does not have a textbook management system. Textbook provision relies on private publishers and students need to buy textbooks directly from the commercial market which sets high prices prohibitive to most families (about US\$35 or above per subject textbook). Commercial textbooks often lack local content (e.g., history, biology or geography). Because they are very expensive, schools have limited volumes of textbooks and often lock them up.
- f. **Limited opportunity to acquire market-relevant digital skills.** Students in Liberia have limited if any opportunity to acquire even the most basic digital skills. Generally, teachers do not provide any instruction in this area – nor do schools, with exception of a handful in Monrovia, have access to the necessary infrastructure to offer these skills including computers, labs, electricity, and/or connectivity. Across public and community schools in Liberia, four counties do not have any schools with a computer lab, several have one or two, and Montserrado has the largest number of computer labs of any county with six computer labs. The lack of digital literacy and skills among youth today will put Liberia further behind in modernizing its economy and catching up with the rest of the world in the 4th generation of industrialization.

Systemic deficiencies and weak capacity

- g. **Weak governance and management of the education system.** Liberia's education system lacks critical structures for adequate management and monitoring of the quality of education provided and ensuring establishment of a solid chain of accountability. Management qualifications are not uniform across the sector (for example, there are no pre-defined qualifications or standards for school leadership), resulting

¹⁴ See Standing Orders for the Civil Service, CSA, 2012.



in significant variation in school management and performance. Lack of data and the capacity to analyze and use data weakens the education administration at all levels – hampering effective decision-making and ability to monitor education service delivery and progress. Information chains, while feeding information up and school levels, often lack consistent feedback mechanisms from the central level down to the counties, districts, to ensure that data are used to inform decision-making at the decentralized levels to the benefit of counties, districts, and schools. Additionally, accountability of the education system is fragmented both administratively and financially. The MoE is responsible for the delivery of education across the country. However, since schools within Monrovia are under the administration of the MCSS, which receives a direct allocation from the government budget, MCSS is able to make unilateral decisions about its schools and teachers.

- h. **Limited and fragmented public financing.** Government spending on education in Liberia is about 4 percent of the country’s GDP. In the FY2018/2019 government budget, US\$84 million or approximately 15 percent of government expenditures was allocated to education, channeled through a number of sources including the MoE (US\$45 million), government education institutions, and other line ministries that contribute to the sector. The largest portion of spending is historically on higher education (39 percent), followed by primary education (28 percent), early childhood education (14 percent), JSS (8 percent) with SSS receiving only 4 percent of the total education budget.¹⁵ In addition to accounting for less than 5 percent of total public spending on education, the fees charged at senior secondary level (about US\$10 equivalent per student per year) are insufficient to provide schools with resources beyond subsidizing non-payroll teachers or covering basic maintenance costs. While a number of donors provide support to basic education, very few resources are allocated towards senior secondary schooling.

14. **The proposed Improving Results In Secondary Education (IRISE) Project aims to address several of the aforementioned challenges. It aims to support the government’s efforts to increase equitable access to senior secondary education and to ensure that the education provided is of good quality and relevant for students’ entry into the labor market and/or continued education and training.** The Government has requested the technical and financial support to be provided by the proposed project to address the significant challenges faced at the senior secondary level. By investing in improving access to quality and relevant education services for youth, and particularly girls and those living in poor areas, the Government will be taking critical steps to advance its human capital potential. The proposed project will support the Government in ensuring that the country’s youth have the requisite knowledge and skills to enter the job market, in turn, making them a key driver of increased productivity and economic growth. As a first-generation secondary education project, the proposed interventions will support the Government in expanding access to and improving the quality of secondary education while establishing the foundation for key sector reforms, taking into account the complex and myriad challenges faced by the sector.

C. Relevance to Higher Level Objectives

15. **The proposed IRISE Project is closely aligned with the World Bank Group Country Partnership Framework for Liberia (CPF, 2019-2024)¹⁶.** The CPF has identified “Building Human Capital to Seize New Economic Opportunities” as one of its four strategic pillars, in line with the Government’s PAPD. The design of the proposed project reflects a number of areas highlighted in these strategies including: improving the quality of secondary education services; increasing accessibility of tertiary education; reaching young people outside the system; and

¹⁵ Source: Education Sector Analysis (ESA) 2014/15.

¹⁶ Report No. 130753-LR.



addressing gender-based violence (GBV), much of which is perpetrated within schools, in particular in public and community schools due to lack of resources. The proposed project is also closely aligned with the World Bank Africa Region's goal of addressing the fertility challenge in the country¹⁷ by expanding access to quality secondary education, especially for girls; and the regional push to help African youth develop 21st century/digital skills, also a priority of the Government.¹⁸ The project's focus on promoting equitable access to secondary education corresponds to Sustainable Development Goal (SDG) 4 (specifically target 4.1 which includes secondary education and target 4.5 which focuses on gender equality and inclusion). The proposed project's emphasis on equity – targeting support to provide poor and marginalized communities better access to quality education - is aligned with World Bank Group's twin goals of reducing poverty and boosting shared prosperity.

16. **The project is aligned with key government strategic documents for the sector including the Getting to Best Education Sector Plan (G2B-ESP) and the strategic roadmap for education transformation outlined in the National Education Summit (2019-2023).** The 2018 National Education Summit presented a vision for education in Liberia in which improving senior secondary education was notably emphasized, particularly in terms of improving learning outcomes, teaching quality, the learning environment and increasing girls' retention and completion – with the aim of increasing job readiness amongst girls and/or preparing them for continued education. By supporting improved access to schooling and better education outcomes at the senior secondary level, the proposed project will be addressing a critical financing gap in the country's education sector.

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

17. The Project Development Objective (PDO) is to improve equitable access to, and quality of, secondary education.

PDO Level Indicators

18. The following indicators will be used to monitor progress towards the achievement of the PDO:

- a) Increase in GER at the senior secondary level (percentage; and percentage female)
- b) Increase in public and community SSSs with a qualified teacher each in Math, Science and English (percentage)
- c) Number of direct project beneficiaries (number of female)

19. **The proposed project employs a hybrid of the Investment Project Financing (IPF) – a traditional investment approach for interventions supported under Components 1 and 4 and a results-based financing (RBF) modality using IPF with disbursement-linked indicators (DLIs) for Components 2 and 3.** Disbursements under Components 2 and 3 up to a capped amount will be made against specific line items in the MoE's annual budget; disbursement against these eligible expenditure programs (EEPs) will be conditioned on the achievement of specified results, as measured by DLIs (see Annex 2). Such an approach reflects a shift from an emphasis on

¹⁷ Liberia's fertility rate is 4.5 (World Bank 2017 data) as compared to the global average of 2.5.

¹⁸ ICT and digital skills have been identified as a government priority in the 2018 National Education Summit.



inputs, but rather focuses on incentivizing achievement of results. The areas of focus selected for this approach, including efforts to increase girls' participation in and completion of schooling, strengthening the government's system for teacher training and management, building a sustainable system for textbook development and curriculum alignment, and the provision of digital skills – were selected as they intend to incentivize a push for results in each of these critical areas as well as the opportunity to further strengthen the Ministry's capacity to lead these efforts and achieve these outcomes.

20. The DLIs (listed below, and described in Annex 2) reflect the Government's education priorities and strategies for the sector. They include intermediate results, implementation performance targets and institutional reforms that build incrementally over the life of the project to increase access of students to school, particularly girls and those in poor areas to better and more relevant education at the senior secondary level. The project will disburse resources against the following six DLIs:

- DLI #1 – Increased girls' access, retention and completion in secondary education
- DLI #2 – Improved pre-service teacher training
- DLI #3 – Improved in-service teacher training
- DLI #4 – Improved qualification profile of the teaching workforce
- DLI #5 – Increased access to textbooks at the senior secondary level
- DLI #6 – Improved access to basic digital skills training for senior secondary students

B. Project Components

21. The proposed project aims to achieve the PDO by supporting the Government in addressing challenges the country is facing in providing equitable access to quality education at the secondary level. While supporting the Government in addressing the aforementioned challenges, the project aims to tackle system-level constraints to the provision of effective education services by strengthening the teacher training system, improving the textbook management system, building management capacity in the education sector and supporting the development of core strategies related to ICT in education and school construction.

Component 1: Improving access and learning environment at the senior secondary level (US\$14.4 million equivalent)

22. This component will support the Government in promoting equitable access to quality senior secondary education and a better teaching and learning environment in schools. It includes two sub-components: (i) improving access to SSSs; and (ii) supporting school expansion, rehabilitation and renovation using a community empowerment approach (CEA). To ensure quality and consistency in terms of standards across all school construction, implementation of Sub-components 1.1 and 1.2 will be under the joint authority of the MoE (Division of Physical Environment under Bureau of Planning, Research and Development and Project Delivery Team, PDT) and the Ministry of Public Works (MPW).

Sub-component 1.1: Improving access to senior secondary schools (US\$8.03 million equivalent)

23. Under this sub-component, the project will support (i) the construction of one new SSS in each of the three



targeted counties¹⁹ to address shortages of senior secondary schooling in large populated areas in the country. The three new schools to be constructed could include the following structures and elements: classrooms, offices, science laboratories, a computer lab, library, storage room, gender-based latrines and access to water, and a fence for security, as well as necessary furniture and equipment; and (ii) the expansion of 23 public and community JSS in targeted districts which currently do not provide senior secondary schooling, to include a minimum package of three senior secondary classrooms and other school facilities including latrines, access to water, labs and fences, etc. (as required). The locations for the expansion of JSS were selected on the basis of the 2015/2016 school census data²⁰ which identified the absence of SSS in these 23 districts.²¹

24. Under the proposed project, the MoE will be supported during the initial stages of project implementation to develop a National School Infrastructure Strategy (NSIS) that will include design standards, drawings, specifications, a minimum package of activities as well as bills of quantity (BoQs) that are cost effective, environmentally friendly and meet social safeguard requirements. The NSIS will establish norms and standards for future basic and secondary school construction in the country. The construction under this sub-component will adhere to the NSIS and will use a centralized procurement approach where the MoE will manage all of the procurement processes at the central level. The procurement processes will follow World Bank Procurement Regulations.

Sub-component 1.2: Supporting school expansion, rehabilitation and renovation using a community empowerment approach (CEA) (US\$6.37 million equivalent)

25. This sub-component aims to improve the learning environment in SSS by providing grants to JSS for expansion to include SSS and to all existing public and community SSSs for rehabilitation and renovation. A CEA will be used which provides flexibility and efficiency to address individual schools' needs in order to improve their teaching/learning environments. Specifically, this sub-component will follow the NSIS and employ a CEA in: (i) the expansion of two JSS in two selected districts to include a minimum package of three senior secondary classrooms and other school facilities such as latrines, access to water, labs and fences, etc. as required; and (ii) the rehabilitation and renovation of all existing 156 public and community SSS (156 schools – 103 of which are small to medium and 53 of which are large²²).

26. This sub-component will support the expansion of the two JSS in selected districts²³ to include three senior secondary classrooms each (grades 10 through 12) funded by school grants. Each of these two schools will be eligible to receive a school grant in the amount of US\$175,000 implemented according to a School Grants Manual which will provide detailed guidelines for this activity and be developed in the initial stage of project implementation (and is a disbursement condition). School Management Committees (SMCs) will be formally established for these two JSS both of which will receive training relevant for implementation of this activity as

¹⁹ Target counties have been selected based on: (i) level of overcrowding in comparison to national average; (ii) the likelihood of benefitting from other activities under the project including the expansion of high schools to new districts; and (iii) an effort to maintain a geographic balance of support across the country's four regions. Based on this, Nimba, Bong, and Margibi are proposed to receive additional new high schools.

²⁰ The most recent complete school census data.

²¹ In 2018, the MoE conducted a re-demarcation exercise to reduce the number of schools DEOs had to monitor in efforts to ensure effective monitoring and supervision of schools. This increased the total number of education districts to 124 and the number of districts lacking an SSS to 25. The project aims to target the 25 newly-designated education districts (23 of which are supported under this sub-component and the remaining 2 supported under Sub-component 1.2).

²² This classification will be determined based on selection criteria outlined in the PIM.

²³ See footnote 3 above.



detailed in an SMC Training Manual to be developed in the initial phase of the project. This activity will provide an opportunity to assess the feasibility of using a CEA in Liberia, create awareness of the approach, and generate buy-in amongst stakeholders as a way to strengthen community involvement in school management.

27. Each of these two schools will be eligible to receive a school grant in the amount of US\$175,000. The school grants will be provided on the basis of a school grant agreement to be signed between each of the recipient SMCs and the MoE (PDT) which will allow these participating communities to manage the funds related to their school construction activities while ensuring that the school grant funds are used for their intended purpose and their use is in accordance with the World Bank Anti-corruption Guidelines. The school grant will be provided in three tranches as described below. Each SMC will be required to open a construction-designated account in a commercial bank (preferably in close proximity to the communities) approved by the PDT and the PFMU. The World Bank procurement guidelines for community-driven development (CDD) will apply to procurement under this sub-component.²⁴

28. Under this sub-component, school grants for rehabilitation and renovation will also be provided to all existing public and community SSS in the country. The School Grants Manual described above will include specific provisions for these school grants for renovation and rehabilitation, as needed. Each of the existing 156 public and community SSS in the country will have the opportunity to apply to receive a school grant. A school will be eligible to receive a school grant provided that it: (i) develops and submits a school improvement plan (SIP) which is approved by its respective District Education Officer (DEO); (ii) at least five core SMC members participate in the SMC training described above (and adapted for these school grants); (iii) signs a contractual school grant agreement with the MoE (PDT); and (iv) opens a construction-designated account in a commercial bank (as described above). The grant amounts for the 53 large schools will be up to US\$55,000 and for the 103 small-to-medium size schools will be up to US\$30,000. The school grants will also be provided in three tranches: 50 percent will be provided once the school's SIP is approved by the DEO; 40 percent and 10 percent, upon receipt of evidence of eligible expenditures and verification of the appropriate use of funds for the first and second tranches, respectively.

29. Training under this sub-component will be provided to SMCs by a private service provider. The project will aim to build the capacity of SMCs to develop costed SIPs using a collaborative approach and to procure contractors in a transparent manner who are accountable to the school. The schools will be empowered to contract a clerk of works to supervise all civil works activities financed by school grants. While SMCs will play a lead role with their capacity strengthened through targeted training, they will also benefit from technical support from the county resident engineer of the MPW and the Division of Physical Environment at the MoE. Further, the DEOs will work closely with SMCs in sensitizing local communities to ensure safeguards issues are addressed during construction.

Component 2: Increasing opportunities for girls to transition to and complete senior secondary education (US\$5.0 million equivalent)

30. This component aims to address the large number of Liberian girls and young women dropping out between grades 9 and 10 and to assist the Government in ensuring that young women transition to and complete senior secondary education. This component directly responds to the government priority as captured in the PAPD Pillar 1, to “reduce out of school rates and increase retention and completion rates for girls, while raising minimum education infrastructure standards for boys and girls and ensuring appropriate responses to GBV.”²⁵

²⁴ A description of the CDD approach can be found in the World Bank's new procurement regulations (Sections 6.38 and 6.52). Annex 1 provides additional details.

²⁵ 2018 to 2023 PAPD, Pillar 1: Power to the People, page xxiii.



Sub-component 2.1: Scholarships for girls in counties with the highest female dropout rates at the senior secondary level

31. **The objective of this sub-component is to help the Government reduce the gender gap at the senior secondary level outside Montserrado county.** The four counties with the highest female dropout rates at the senior secondary level in the country – Bomi, Gbarpolu, Grand Bassa and Sinoe – will be targeted for the Girls' Education Scholarship Program. These counties also have high poverty rates, exacerbating inequality and driving intergenerational cycles of poverty through a lack of access to health and education services, among other factors.²⁶ In these four counties between 24 percent (Sinoe) and 30 percent (Gbarpolu and Grand Bassa) of female respondents between 15 and 30 years of age cited lack of money as the main reason that they did not attend school.²⁷ The scholarship will enable an initial cohort of 1,000 girls to benefit from the Scholarship Program throughout SSS (i.e., for three years, grades 10-12) with two additional cohorts of 1,000 girls who enter SSS receiving scholarships through the end of the project. All girls in public and community SSS, who are enrolled in the four targeted counties in grades 8 and 9 and then sit for the grade nine exam in the targeted counties, will be given a scholarship for SSS. The Scholarship Program is designed to remove key financial constraints that young women and their families face in accessing and completing a senior secondary education. The scholarship will cover the cost of tuition (school fees), uniforms, sanitary products and other costs that young women incur to attend school.

32. The scholarships will be provided twice a year and in two parts – school fees for girls receiving scholarships will be directly transferred to schools through mobile payments initiated by the MoE in partnership with a telecommunications company.²⁸ The remainder of the scholarship payment will be transferred directly to each recipient to cover uniforms, notebooks and stationary, a phone for mobile payments (if the recipient does not own a phone), transportation, sanitary products and other costs. To ensure the recipients have immediate access to the funds and to maximize the use of technology as part of this sub-component, mobile money will be used to transfer the girls' scholarships. The scholarship recipients will receive a randomly generated Personal Identification Number (PIN) to ensure a secure and consistent transfer of funds to the intended recipient. In addition to the MoE carrying out monitoring and supervision of this activity, the IVA hired under the project will be responsible for: (i) conducting spot checks and ensuring that the intended beneficiaries are receiving the scholarship payments; (ii) undertaking a beneficiary satisfaction survey; and (iii) carrying out an overall design, process, and implementation evaluation after one year of implementation. There will be focus groups with the beneficiaries during project implementation in order to learn about their experiences and whether the scholarships are reducing the constraints to accessing and remaining in school and thus meeting the intended objective.

33. For girls to continue to receive scholarships in subsequent years, a specific minimum standard of achievement will be established, pertaining to, among others – school attendance and, a performance check to be implemented by the female guidance counselors also supported under this project, and, for the first cohort to advance through the Scholarship Program, completion of the school year. The Girls' Education Scholarship Program Guidelines will be developed and adopted during the first year of the project. The specific details on the targeting criteria, design, provision, implementation and supervision of this activity will be provided in the Project

²⁶ HIES 2016.

²⁷ HIES 2016.

²⁸ The school fees are estimated based upon the latest available data of US\$17 per year. Further costing analysis was done to reach the allocation amount to be given to the recipients of US\$340 which includes the costs for notebooks/stationery (US\$25), sanitary pads (US\$75), uniform (US\$20), basic phone (US\$20) and a stipend (US\$200) to offset transportation costs and also the opportunity costs of a family sending a girl to school instead of her contributing to the household income, caring for siblings or doing household chores.



Implementation Manual (PIM) for the project. A strong monitoring and evaluation (M&E) framework for this sub-component will be captured in the PIM given the implementation complexity and use of mobile technology. In addition, there is scope to build in an impact evaluation for this sub-component.²⁹

34. For this sub-component, the release of IDA funds will be linked to DLI 1: *Increased girls' access, retention, and completion in secondary schools (see Annex 2, DLI Matrix).*

Sub-component 2.2: Supporting safer learning environments in senior secondary schools for girls

35. **This sub-component aims to improve learning results in schools for female students by furthering a safe learning environment.** The teaching workforce at the senior secondary level is predominantly male, and, female students (outside of Montserrat) rarely have exposure to female role models in secondary schools. Additionally, given the documented prevalence of sex-for-grades and GBV, girls are especially vulnerable to exploitation and abuse. The Government will introduce the role of female guidance counselors into public SSS intended to provide psycho-social support, serve as an advocate and advisor, especially for female students, and supplement efforts to create a safe environment in schools. Under this sub-component, approximately 200 female guidance counselors will be recruited and trained by the MoE. In the first year of the project, the MoE will draft the terms of reference (ToRs) for the counselors to be agreed with the World Bank. The ToRs and the PIM will also address the recruitment and deployment arrangements to establish clarity and transparency from the start of this activity.³⁰ The guidance counselors will receive psycho-social training including on fostering self-esteem, mental health and wellness as well as school health curricula. Counselors' salaries and benefits will be funded by MoE. From the start of the project, counselors will be considered employees of MoE and their employment and remuneration will be in accordance with the Government's regulations. The training for the female guidance counselors will build on programs already implemented in Liberia including, though not limited to, the United States Agency for International Development (USAID)-funded Girls' Opportunities to Access Learning (GOAL) and GOAL Plus programs as well as the Japan Social Development Funded (JSDF)-Supporting Psychosocial Health and Resilience Project implemented by the Carter Center.³¹ Similar interventions in other countries including Madagascar and Uganda have shown that the presence of female guidance counselors/mentors who are trained to teach life skills curricula and offer socio-emotional support in schools can positively impact girls' retention and completion rates and act as positive female role models.³²

²⁹ The Africa Gender Innovation Lab has been consulted on the project and there is scope to partner with the Africa Gender Innovation Lab on an impact evaluation for the girls' scholarship sub-component given this is the first time a scholarship at the secondary level supported through an IDA project will be implemented in Liberia.

³⁰ By the end of the project female guidance counselors are expected to be present in all SSS after completing a training program. Female guidance counselors are defined as female employees of the MoE who hold a bachelor's degree; meet the skill profile for female guidance counselors as defined in the ToRs to be developed by the MoE in year 1 of the project and have had training in connection with guidance counseling, school health, emotional support and well-being, self-esteem and life skills training who are then placed in public and community secondary schools for the duration of the project.

³¹ The USAID-funded GOAL and GOAL Plus program was implemented from 2010 to 2016 and included a scholarship program for girls in grades 1-6 contingent on attendance and performance. Lessons learned from this program, while the program focused on the basic education, are applicable and relevant to the scholarship component funded through the proposed IRISE Project. The World Bank and JSDF - Supporting Psychosocial Health and Resilience Project implemented by the Carter Center trained over 800 social workers, teachers, religious and traditional leaders and other stakeholders at the national, county and district levels to bolster mental health and psychosocial support in communities highly impacted by EVD. Given the prevalence of violence at the school level, the trainings and materials developed for this program can inform the trainings envisioned for the guidance counselors and also inform Sub-component 2.3 of the proposed IRISE Project.

³² Nguyen, Trang. 2008. "Information, Role Models and Perceived Returns to Education: Experimental Evidence from Madagascar." Abdul Latif Jameel Poverty Action Lab, Cambridge, Mass. <http://www.povertyactionlab.org/doc/information-role-models-and-perceived-returns-education>.



36. For this sub-component, the release of IDA funds will be linked to DLI 1: *Increased girls' access, retention, and completion in secondary education (see Annex 2, DLI Matrix).*

Sub-component 2.3: Promoting community engagement to empower girls, schools and communities

37. **This sub-component uses a school-driven model to promote behavioral change that addresses social norms.** It aims to build positive interactions and relationships as well as awareness on the benefit of educating girls and women. Through a series of activities including, though not limited to, conducting analysis on the major constraints faced by girls and other vulnerable groups in attending secondary education and disseminating findings; community dialogue and school-driven community engagement campaigns, which will engage students, parents, and community leaders, especially traditional and religious leaders, in dialogue around the positive impacts of investing in girls' education; as well as developing and implementing a plan to address the identified constraints which deter girls and other vulnerable groups from remaining in school. Lessons learned from comparable interventions in Sub-Saharan Africa and Liberia including the *Girl Empower* program in Nimba county and the USAID-funded GOAL and GOAL Plus programs will inform this sub-component's implementation. This sub-component will reinforce the project's support to girls' scholarship and female guidance counselors to ensure a multi-faceted approach to promoting girls' education is implemented that is culturally-relevant and locally-owned.

38. The implementation of Component 2 will be under the joint authority of the Minister's Office and the Department of Instruction in coordination with the Department of Administration. The Ministry, under the leadership of the Assistant Minister for Basic and Secondary Education, has designated focal points for all sub-components in addition to focal points for specific steps (i.e., validation of scholarship lists received from county education offices (CEOs)) to mitigate implementation delays. An implementation roadmap for the first 18 months of the project has been confirmed. Following this 18-month period, an assessment of implementation effectiveness will be undertaken internally by the MoE to determine whether the implementation arrangement is adequate and, as needed, further strengthen implementation arrangements in the subsequent years of project implementation. In addition, the MoE will ensure collaboration with the Ministry of Gender, Children and Social Protection (MGCSP).

39. For this component, the release of IDA funds will be linked to DLI 1: *Increased girls' access, retention, and completion in secondary education (see Annex 3, DLI Matrix).*

Component 3: Improving quality and relevance of senior secondary education (US\$19.0 million equivalent)

40. This component aims to increase the quality and relevance of senior secondary education through targeted efforts to modernize pre-service teacher training, strengthen in-service teacher training, improve management and quality of teaching workforce, avail TLMs to students and teachers, and access to learning digital skills.

Sub-component 3.1 Improving the quality of teaching in senior secondary education

Sub-component 3.1(A): Modernizing pre-service teacher training

41. **This sub-component aims to strengthen pre-service teacher training by building the capacity of a selected teacher training institution to produce qualified teacher graduates, who have the required content knowledge and skills to effectively impart learning in the classroom and equip their students with 21st century skills.** Under this sub-component, the William V.S. Tubman Teachers' College at the University of Liberia (UL-TC) has been selected by the MoE as the pre-service teacher training institution which will be strengthened under the



proposed project to deliver high-quality pre-service teacher training and in future to serve as a model and play a leadership role to transform pre-service teacher training in the country. The University, as the flagship public higher education institution in the country (and one of a few public schools which trains SSS teachers), is well positioned to play a leadership role in revitalizing teachers' education in the country by supporting other teacher training institutions (TTIs).

42. The proposed project will support UL-TC to modernize its Bachelor's level pre-service teacher training programs (prioritizing programs in Math Education, Science Education (Biology, Chemistry, and Physics), and English Education) by: (i) evaluating and revising the curricula of selected programs and developing up-to-date course materials and training modules that are aligned with the revised curricula; and (ii) providing students (future teachers) with an opportunity to develop digital skills and to build their capacity to integrate ICT in their teaching. In the initial phase of the project, the University will be requested to submit a detailed strategy and implementation plan for carrying out the above-mentioned activities which will be reviewed and approved by the World Bank. Each of the activities to be supported under this sub-component are described in further detail below.

43. **Evaluation of the teacher training curricula and content and pedagogy trainings.** A key first step in this process will be evaluating the existing training programs to examine the soundness of the teacher training curricula and the alignment between the curricula and training materials³³. The evaluation will also look at the quality and effectiveness of the content and pedagogy trainings provided to teacher trainees, especially in core subject areas of Math, English and Sciences. The focus on these subjects is in line with the strategic priority of the MoE to increase the share of qualified Math and Science teachers and to improve the quality of teaching in core subjects including Biology, Chemistry, and Physics in secondary schools.³⁴ By focusing on these subject areas, the proposed project will also help address critical capacity gaps at UL-TC. Currently, the UL-TC, relies on other departments and colleges in the University to provide subject content training to its teacher trainees who are attending its Math and Science programs. While this approach was necessary given the very limited capacity at the UL-TC, it has led to misalignments between the content of the training teacher trainees receive and the content knowledge they need as teachers in Liberian senior secondary education classrooms. Another issue is the lack of practical training (i.e., practicum) as part of the pedagogy training provided to teacher trainees. The review and evaluation of the current pre-service training supported under this sub-component is expected to identify and allow for further study of these issues in more detail. Based on the findings of the evaluation, UL-TC will prepare a strategic plan that will guide the revision and revamping of the selected pre-service programs.

44. **In line with the strategic plan and informed by the findings of the evaluation, the pre-service teacher training curricula will be revised and revamped and course materials will be developed.** The revision of the curricula will focus on the English Education, Math Education, and Science Education programs. The project will support the development of course materials to be aligned with the revised curricula for pedagogical courses and, where needed, for content courses. The list of course materials and modules that will be developed will be decided based on the findings of the evaluation and the curricula revision process. The project will also support the development of a practicum program to ensure that structured practice in actual classrooms is part of pre-service teacher training.

³³ UL-TC currently offers pre-service teacher training in Math Education, Science Education (Biology, Chemistry, Physics), Geography Education, History Education, History and Government (major in History and minor in Political Science) Business Education (covering Accounting, Economics, and Management), and English Education.

³⁴ As discussed in detail under the Sector and Institutional Context section, the low quality of instruction in science and math in secondary schools and the poor outcomes of students in these subject areas is of significant concern. In addition, the shortage of qualified teachers in SSS is more severe for Math and Science subject areas.



45. Faculty will be trained to provide high quality pre-service teacher training. UL-TC has fewer than 25 faculty members with only two PhD-holders and many faculty members having only a Bachelor's degree. In addition, UL-TC does not have faculty who can teach critical courses in Science subjects. As part of its development plan agreed with the University, UL-TC will hire about 20 new faculty members over the coming four years to meet these gaps, but many of the new hires are expected to be Bachelor degree-holders as there are not many candidates with post-graduate qualifications in the Liberian job market. Taking this challenge into account, the project will support UL-TC to provide training opportunities for its faculty members to upgrade their qualifications (mainly from Bachelor's degree to Master's degree) in regional or international universities. To build capacity nationally, the project will provide training support to other TTIs, including the College of Education at William V.S. Tubman University and the Regional Teacher Training Institutes (RTTIs), to upgrade the qualifications of their faculty through training at regional and international institutions. Extending the capacity building support beyond UL-TC faculty is important in order to successfully scale up the improved programs under the project to other institutions in the medium to long-run and to transform pre-service teacher training in Liberia. By the end of the project, a total of 30 faculty members (at least 15 of the faculty coming from UL-TC) will have received training.

46. In addition to the qualification upgrading training, faculty at UL-TC will be provided with short-term training on the revised curricula and the new training materials. The modernized pre-service teacher training will then be launched using trained faculty to new entrants in the last year of the project. As the development of the program requires time, full roll-out will not happen within the project time frame. However, the process is expected to lay a strong foundation for the UL-TC to provide high quality pre-service training and establish the mechanism to review and revise teacher training programs nationally.

47. **Digital skills and integration of ICT in teaching.** The proposed project will finance the refurbishing of rooms in an existing building at UL-TC with technology-enhanced training space of two smart classrooms and a media lab. The refurbished rooms will be used for innovative teaching, experimentation, and demonstration purposes by harnessing digital technology. For example, videos of exemplary teachers can be produced using the media lab and be used to demonstrate effective teaching-learning interactions in a real context and introduce teacher trainees to realities of the classroom. In addition, video can be used to provide a means for teacher-trainees to observe themselves and get feedback. The use of technology in teacher training is expected to equip trainees with digital skills and build their capacity to integrate ICT into their own teaching when they join the teaching force. In addition, the media lab will be used to produce and digitize TLMs that will be used in the pre-service teacher training program and serve as resources for other TTIs and for in-service teachers. The project will also provide support to the Tubman University, the other public university with capacity of training SSS teachers (which is located in the southeast of the country whereas the UL-TC is located in the capital Monrovia) by equipping its College of Education with two smart classrooms³⁵ for demonstration purposes.

48. The UL-TC will be responsible for implementing activities related to and evaluating and revising and revamping pre-service teacher training under this sub-component with guidance from the Department of Instruction at the MoE. Both UL-TC and the College of Education at William V.S. Tubman University will be key implementers of interventions related to integrating ICT in teacher training, while the RTTIs will benefit mainly from the training of faculty. The project will provide technical assistance (TA) to support key areas of the development of the new pre-service program and to build capacity at UL-TC.

³⁵ Smart Classrooms are technology enhanced classrooms that foster opportunities for teaching and learning by integrating learning technology, such as computers, specialized software, audience response technology, assistive listening devices, networking, and audio/visual capabilities. Classroom Services leads the support, design, and planning for campus learning spaces.



49. For this sub-component, the release of IDA funds will be linked to DLI 2: *Improved pre-service teacher training (see Annex 2, DLI Matrix)*.

Sub-component 3.1(B): Establishing an in-service teacher continuous professional development system

50. **This sub-component aims to further build the skills of teachers already in secondary schools by establishing a feedback-based CPD program.** The feedback-based CPD program aims to support the existing stock of teachers in acquiring the necessary content knowledge and pedagogical competencies and skills they need to provide high quality teaching in the classroom in key subject areas. By helping establish this program, the project will close a significant gap in the teacher development system of the country – addressing the lack of in-service capacity development support for teachers.

51. **To ensure that the CPD program is effective in addressing gaps teachers and students have, it will be developed and refined using available data.** Specifically, results from the WASSCE will be analyzed in-depth to identify: (a) the most prevalent learning gaps and the topic areas where students show conceptual and skill deficiencies; and (b) gaps in content knowledge and pedagogical skills of teachers –particularly the “hard-to-teach” areas. In addition, a baseline evaluation on the classroom practice of teachers and the current teacher development system will be undertaken. Based on these analyses, a CPD program (including training materials) that addresses content and pedagogy gaps will be developed.

52. **The proposed training will adopt a blended approach combining face-to-face training, technology-based training and coaching, and follow-up support by vice principals of instruction (VPIs) and through teacher peer groups.** The training will be provided in collaboration with teacher training institutions and with TA support provided by the project to all public school teachers who teach English, Math, or Sciences (Biology, Chemistry, or Physics) in grades 10-12³⁶. ICT will be used to enhance the effectiveness of the training teachers receive, especially on pedagogy. For example, videos of exemplary Liberian teachers will be used to demonstrate effective teaching-learning interactions in a real classroom context. In addition, video will be used to provide a means for teachers to observe themselves and obtain feedback.

53. In addition to teacher training, this sub-component will also support the training of at least 150 VPIs in key areas of instructional leadership, building on the school principal training program supported by the ongoing Global Partnership for Education (GPE)-funded Getting to Best (G2B) Project (P162089). This training aims to enhance the capacity of VPIs to support the teaching and learning process in their schools by undertaking regular classroom visits to observe teachers’ practices (and determining if teachers are applying what they learned through the feedback-based CPD) and providing feedback and follow-up support. The project will also support the development and launch of an online teacher development platform that will be run by UL-TC or the MoE which will be clarified in the PIM. All newly developed teacher training and support materials will be digitized and made available through this online platform for broader accessibility and long-term sustainability.

54. **The new feedback-based CPD program will be tested and refined over the course of the project.** The feedback-based CPD program will be piloted and evaluated. Based on the evaluation findings, the teacher training modules will be refined, and the first round of large-scale training will be provided. During the training, teachers will also be oriented on how to effectively use the new textbooks, which will be developed under the project (see

³⁶ The number of teachers working in secondary schools can only be estimated as many teachers teach both junior and senior secondary so there is a tendency to double count. However, based on the 2015/16 EMIS, the number of teachers who teach the core subjects in SSS is estimated to be 1,120.



Sub-component 3.2), in their classroom teaching. Following the training, teachers are expected to apply what they learned in their classroom teaching and provide remedial support to help students master content knowledge and analytical skills in the target subject areas.

55. At the school level, various approaches will be used to provide follow-up support for teachers. First, VPIs will undertake regular classroom visits to observe teachers' practices in the classroom (and determine if teachers are applying what they learned through the feedback-based CPD) and providing feedback and follow-up support. Second, as part of the feedback-based CPD program, the project will help the MoE develop and implement a peer group mentoring and coaching approach, where teachers from nearby schools will meet regularly to discuss issues they are facing in their classrooms and exchange ideas and good practices. In addition, text messages (SMS) will be used to send teachers regular reminders to apply effective techniques they have been trained on as well as to collect information on areas for which they need additional support to help develop and implement the key aspects of the feedback-based CPD program. The project will provide TA.

56. **Through this sub-component, the project will effectively institutionalize a CPD program for teachers and address the gap in the provision of in-service teacher training at the senior secondary level.** The MoE can use the same approach to provide in-service teacher training to JSS teachers in the future. In addition, given the large number of SSS teachers who do not have the minimum qualifications to teach at this level, the project will provide TA to the MoE to develop a teacher qualification upgrading strategy. The strategy will put forward options and mechanisms that the Government can use to support unqualified teachers to upgrade their qualifications.

57. The implementation of this sub-component will be under joint authority of the Department of Instruction in close collaboration with WAEC and teacher training institutions. The project will provide TA to support the implementation of key activities under this sub-component and build capacity of the implementing bodies.

58. For this sub-component, the release of IDA funds will be linked to DLI 3: *Improved in-service teacher training (see Annex 2, DLI Matrix)*.

Sub-component 3.1 (C): Improving the management and quality of the teaching workforce

59. **This sub-component will provide support to the Government to: (i) develop a teaching workforce management strategy; and (ii) progressively increase the efficiency and quality of the teaching workforce.** A teaching workforce management strategy is urgently needed to address critical issues and challenges in the teaching workforce management process. Currently, the recruitment of teachers is stalled due to lack of fiscal space. Furthermore, teacher deployment is often not equitable geographically, with large urban areas receiving a majority of qualified teachers and with no effective mechanisms in place to incentivize teachers to take posts in rural areas. A majority of teachers do not have the required minimum qualifications and in-service qualification upgrading programs are not widely available. To address these issues, the proposed project will provide TA to the Government to support the development of a teaching workforce management strategy that identifies mechanisms on how to effectively recruit competent teachers and other staff, deploy them efficiently based on the needs of schools including in hard-to-recruit areas, provide CPD and qualification upgrading opportunities, and incentivize and monitor performance.

60. **This sub-component also aims to support the Government enforce the civil service employment policy that mandates that personnel must be retired once they reach the age of 65.** This clean-up of the Civil Service Agency (CSA)-MoE employee registry will afford the MoE much needed fiscal space to recruit new teachers, who



are qualified to teach at the secondary level. Particularly, it will allow the Government to staff the newly constructed classrooms (i.e., in new and expanded schools under the project) with qualified teachers, estimated at around 250 teachers. The MoE will collaborate with CSA to identify staff on the CSA-MoE employee payroll registry who have reached the mandatory retirement age of 65 for deletion from the payroll and transition to the national social security scheme. It is expected that this will be done on an annual basis to allow the MoE to recruit more qualified teachers. Removing these staff will free up fiscal space for the MoE and support MoE's plan for increasing efficiency and quality of the teaching workforce. The MoE will provide the CSA-MoE employee payroll registry and the CSA-approved listing of staff eligible for retirement to begin the retirement process. The transparency of the CSA-MoE employee payroll registry will also help MoE improve payroll management and contribute to the development of a teaching workforce planning and management strategy.

61. It is estimated that the number of eligible staff for retirement is about 1,700 and the associated cost for retirement allotment (or "handshake" as it is referred to in the law) is about US\$2.0 million. The validated list of employees who are due to be retired from the CSA-MoE employee payroll registry will be shared with the World Bank to allow for an estimation of fiscal space to be created and associated number of new teachers that can be recruited. The MoE has committed to hiring qualified teachers who will be deployed to areas where there is greatest demand for SSS teachers (see DLI 4 for the agreed targeting).

62. The Department of Administration will lead the implementation of this activity on the MoE side, working closely with the CSA and the National Social Security and Welfare Corporation (NASSCORP) to ensure requirements are met. The CSA, in turn, will be responsible for producing the CSA-MoE employee payroll registry as a measure of displaying the list of that can be expected to be staff remaining on the payroll and projecting the next year's "handshake" allotment needs as well as the fiscal space created through this exercise. The Government has committed to ensuring that this activity will not create a net deficit as additional teachers would be hired with the freed-up resources.

63. For the activities described under this sub-component, release of IDA funds will be linked to DLI 4: *Improved qualification profile of the teaching workforce (see Annex 2, DLI Matrix)*.

Sub-component 3.2: Providing teaching and learning materials to senior secondary schools

62. **This sub-component aims to: (i) promote alignment/linkages between curriculum, textbooks and assessment systems; and (ii) address the severe shortage of TLMs in public and community schools at the senior secondary level** by: (a) reviewing and revising existing MoE textbook guidelines; (b) identifying and adapting existing textbooks and learning materials to the national curriculum at the senior secondary level in select subjects; (c) supporting the procurement and distribution of newly adapted textbooks; and (d) supporting the development of a free textbook app and an online platform for textbooks, teacher guides and other learning materials.

63. The MoE will establish a technical working group (TWG) led by the Center of Excellence for Curriculum Development and Textbook Research, comprising representatives from the Bureau of Basic and Secondary Education, WAEC, Division of Procurement at the MoE and the PDT to guide and oversee key activities under this sub-component. The project will provide TA support to the TWG to review and revise its *Proposed Guidelines for Textbook Origination, Provision and Management*. The guidelines will specify processes and roles and responsibilities of different stakeholders in textbook selection, review, adoption, procurement, distribution and monitoring of usage based on local and international best practices. Once the guidelines are revised and adopted



by the MoE, they will be used to identify and adapt existing textbooks and learning materials for English, Math, Physics, Chemistry and Biology to the national curriculum at the senior secondary level, revised by the MoE in 2018. Given the universal nature of the content of these core subjects, the MoE TWG for textbooks with support from TA (supplied by a consultant service provider with previous experience in textbook development and management), will identify and adapt quality Open Educational Resources (OER) online as well as textbooks from existing textbook series which have been prepared and market-tested by experienced publishers in regional and international markets. The TA will support alignment of the identified textbooks and learning materials with the national curriculum, provide quality assurance, pilot the textbooks with select learners and teachers, collect feedback, supervise revision and finalize the textbooks. Through this process, the MoE will ensure that local content that is appropriate and relevant for Liberia's context is included in the textbooks. The newly adapted textbooks are also expected to provide the knowledge and competencies required to successfully pass the WASSCE.

64. **The revised and adopted MoE Guidelines will also be used to select the lowest cost private publisher to print and distribute the newly adapted textbooks, to all public and community SSS by the end of the project.** In addition, as part of the feedback-based CPD program for in-service teachers (see Sub-component 3.1(B)), teachers will be trained on how to effectively use the newly adapted textbooks in their classroom teaching. Finally, to ensure sustainability, a free textbook app will be created, and an online textbook platform developed that can be accessed on any device (mobile phones, computers or tablets), that will initially house the textbooks and will later include other TLMs, making them public goods for all secondary schools in the country.^{37 38} Using the guidelines, the newly adapted textbooks will be procured and distributed to at least 90 percent of public and community SSS to reach textbook to student ratio of at least 1:5 by the end of the project.

65. **The Department of Instruction (MoE) will have the overall responsibility for implementing this sub-component.** The TWG led by the Center of Excellence for Curriculum Development and Textbook Research, comprising representatives from the Bureau of Basic and Secondary Education, WAEC-Liberia, Division of Procurement at the MoE and the PDT with support of the TA will oversee implementation of all activities. A private publisher will be contracted to print and distribute the newly adapted textbooks to all public and community SSS. Further, a private service provider will be responsible for developing the online textbook platform and the app, digitizing the adapted textbooks and uploading them on the platform. The service provider will also train the Center of Excellence for Curriculum Development and Textbook Research as well as the Division of Information Technology (IT) at the MoE on maintenance and upkeep of the platform and the app. DEOs will play an active role in monitoring the distribution of textbooks to schools and their usage and will work closely with schools and Parent-teacher Associations (PTAs) to ensure that schools have appropriate storage for textbooks.

66. Release of IDA funds under this sub-component will be supported by DLI 5: *Increased access to textbooks at the senior secondary level (see Annex 2, DLI Matrix).*

Sub-component 3.3: Providing opportunities for acquisition of digital skills and competencies

67. **This sub-component aims to provide senior secondary students in targeted areas with the opportunity**

³⁷ Please see Annex 2 for details on the activities covered under the sub-component.

³⁸ The project aims to gradually build a foundation for using digitized content in the future. Developing the online platform and mobile app is the first step in the process. Success of the platform and app will be gauged through surveys, and will guide decisions regarding procurement of devices for teachers and students in the future.



to acquire digital literacy skills,³⁹ critical to succeed in the 21st century labor market. Under this sub-component, capacity to provide digital skills will be built at the system-level. The project will support the MoE to develop a long-term ICT strategy to incorporate digital skills into senior secondary education. This strategy will be closely aligned to the education targets listed in the draft national ICT policy for 2019-2024. The ICT strategy for education (covering senior secondary education), including curriculum, competency framework and implementation modality, will further be piloted through procurement and operation of fully equipped mobile computer laboratories in counties which have all-weather roads, as well as through the computer labs in eight SSS. Given the low capacity at the country level (only 20 percent of the population had access to electricity in 2017, and only 7 percent of the population was using the internet in 2016)⁴⁰, the scope of the interventions will be limited to ensure results and sustainability.

68. **Under this sub-component, mobile computer labs (a vehicle equipped with computer equipment) will be procured and piloted as a means to provide digital skills under the project.** Mobile labs, that move between schools, have the potential to serve a large number of students, at a lower per capita cost, as compared to traditional computer labs in schools. Maintenance and operational costs are low, as they are shared between different schools. Under this sub-component, four mobile computer labs will be procured, equipped and launched in Montserrado county (selected based on availability of all-weather roads). Each mobile lab will be equipped with laptops, a portable projector and a small generator. The labs will be managed by a private service provider, who will be responsible for maintaining and securing the mobile lab, procuring the necessary equipment as well as recruiting and training a technician from the local community in the digital curriculum prescribed in the ICT strategy, for each lab. Each mobile lab will spend a half day at one school to provide a one-hour lesson/practice session for students in grades 10-12, then will move to the next school, i.e., one mobile lab will reach two schools on a given school day.

69. **Apart from mobile labs, computer labs will be established and equipped in eight SSS giving students in those schools the opportunity to acquire digital skills.** Three labs will be established in each of the three new SSS to be constructed under Sub-component 1.1 in the project and five computer labs will be established in each of five urban SSS outside Montserrado county, selected based on total enrollment at the senior secondary level and availability of additional space for a computer lab. A room for computer lab as part of the package will be constructed in the three new SSS under Sub-component 1.1, whereas in the remaining five schools, existing space will be refurbished as needed and be used to set up computer labs. Procurement of computers and all necessary equipment for all eight school-based computer labs will be undertaken by the Division of Procurement at the MoE, under this sub-component. Each computer lab will consist of one room and be equipped with 30 standard desktop computers with monitors and one classroom projector, to facilitate individual as well as group learning. Computer technicians/facilitators will be recruited for each of the labs by the Bureau of Fiscal Affairs and Human Resources (MoE) and trained in the digital curriculum by the service provider managing the mobile labs.

70. All targeted beneficiaries under this sub-component, estimated at 5,400 students, will be assessed annually. Targeted beneficiaries include students enrolled in grades 10, 11 and 12 in the schools where computer labs will be constructed/set up, and in the schools in Montserrado county covered by the four mobile labs. The assessment will be aligned with the competency areas proposed under UNESCO's Digital Literacy Global Framework. TA will be provided to develop the assessment, that will be conducted by the technician in each lab and the results will be reported to the Department of Instruction for verification purposes.

³⁹ Basic digital literacy skills refer to 'Competence Area 0 – Devices and software operations', under the proposed Digital Literacy Global Framework (UNESCO, 2018).

⁴⁰ World Bank Liberia Country Data.



71. **The Department of Instruction will have the overall responsibility for implementing this sub-component.** A TWG, led by the Division of Science, Technology, Engineering and Math (STEM) and comprising representatives from the Bureau of Basic and Secondary Education, Center of Excellence for Curriculum Development and Textbook Research, Division of IT as well as the Ministry of Postal and Telecommunications (responsible for ICT development in the country) will be established to work closely with the TA provided under the sub-component as well as the private service provider to ensure successful implementation of all activities. The sub-component will provide TA to support the development of an the ICT strategy for education and graded digital skills assessment. Further, a private service provider will be responsible for procuring, maintaining and operationalizing the mobile labs as well as training the technicians for the mobile labs and school-based computer labs. Principals and VPIs will supervise the implementation of the ICT program in targeted schools. In the last year of the project, this activity will be evaluated and recommendations for potential revisions and scale up will be provided to the Government.

72. The release of IDA funds for this sub-component will be linked to DLI 6: *Improved access to basic digital skills training for senior secondary students (see Annex 2, DLI Matrix)*⁴¹.

Component 4: Capacity building, TA, project coordination, and M&E (US\$8.6 million equivalent)

Capacity building and TA

73. Component 4 aims to support the effective implementation and management of the proposed project while also building the MoE's capacity to manage the education system – providing the foundation for effective and evidence-based management and decision-making. To this end, under this component, TA will be provided to: (i) strengthen MoE's capacity to coordinate, monitor and evaluate project implementation; (ii) MoE and other implementing institutions for achievement of the project objectives and DLIs (under Components 2 and 3); and (iii) recruit the IVA to verify whether results under Components 2 and 3 are met. This component will use a traditional financing (IPF) modality to finance proposed activities. The Senior Management Team (SMT) of the MoE will be responsible for overseeing project implementation. The Department of Instruction (MoE) will lead the implementation of TA activities supported under Component 4 in collaboration with the Department of Administration which will lead the implementation of capacity-building activities supported under the Component. The Department of Planning, Research and Development will be responsible for the M&E for the project. The PDT will collaborate with the IVA which will be hired by the MoE in undertaking the DLI verification activities. The following provides an overview of each of the activities listed above.

74. **TA to support the Government in achieving DLIs under Components 2 and 3.** The project aims to provide TA to the MoE and other implementing institutions during the course of the project. A list of detailed TA activities supported by IRISE can be found in Table 1 below. The MoE will assign appropriate staff to shadow consulting service providers contracted for the various TAs to be provided in order to further develop its own capacity in the TA-covered areas.

⁴¹ Release of funds for the school-based computer labs will follow the traditional IPF modality, as it will be part of the Component 1.



Table 1. TA Provision for Components 2-3

Component/Sub-component	TA
2 Increasing Opportunities for Girls to Transition to and Complete Senior Secondary Education	
2.1: Scholarships for girls in counties with the highest female dropout rates at the senior secondary education level	<ul style="list-style-type: none"> • Designing a scholarship program for girls taking into account local norms, incentives, and long-term sustainability as aligned to the Girls’ Education policy, the Education Sector Plan (ESP) and the country’s Pro-Poor Agenda
2.2: Supporting safer learning environments in SSSs for girls	<ul style="list-style-type: none"> • Defining the job descriptions and qualification requirement of female guidance counselors for students, particularly girls; • Developing training modules and guiding documents for implementation; • Supporting the delivery of training
2.3: Promoting community engagement to empower girls, schools and communities	<ul style="list-style-type: none"> • Setting up the framework and operational plan that links sub-components 2.1 and 2.2 with 2.3 and all three interventions to the ESP and the country’s Pro Poor Agenda
3 Improving Quality and Relevance of Senior Secondary Education	
3.1 Improving the quality of teaching in senior secondary education	
3.1 (A) Modernizing pre-service teacher training	<ul style="list-style-type: none"> • Reviewing/revamping of existing pre-service training curricula and Bachelor-level degree programs at UL-TC; • Integrating of digital technology to teaching and learning
3.1 (B) Establishing an in-service teacher CPD system	<ul style="list-style-type: none"> • Developing a feedback-based in-service teacher training system and supporting the delivery of training; • Supporting MoE on the development of a teacher qualification upgrading strategy
3.1 (C) Improving the management and quality of the teaching workforce	<ul style="list-style-type: none"> • Supporting MoE on the development of a planning and management strategy of the teaching workforce
3.2 Providing teaching and learning materials for senior secondary schools	<ul style="list-style-type: none"> • Developing a textbook management system (streamline from selection, procurement, distribution, utilization); • Supporting MoE on the development of new textbooks for grades 10-12; • Developing an online textbook app and an online teaching/learning materials platform with a focus on textbooks first
3.3 Developing digital skills and competencies	<ul style="list-style-type: none"> • Developing an ICT policy framework for the application and integration of digital technology in education



75. **To build the MoE's capacity in key technical areas in order to ensure better education service delivery**, in areas such as: sector management, evidence-based policy-making, strengthening accountability, and M&E, the following activities will be financed under this component:

- a. **Undertaking a capacity needs assessment of the MoE to inform a professional development program and a training program for education system management and administration.** To ensure capacity-building efforts are targeted to those areas in need, this component will finance a capacity/needs assessment in which the professional development needs of individuals and departments will be identified. Based on the identified needs, a professional development program for key MoE and country/district officers will be developed and implemented in accordance with a training plan. Also, on the basis of the findings from the capacity needs assessment, the project will support the development and implementation of a professional development program on education administration with a focus on planning and policy analysis. The design and content of this training will be supported with TA and guided by the capacity needs assessment, current best practice in such programs, and existing training capacity. It is envisioned that this training will be housed in/provided by the UL-TC.
- b. **Supporting capacity-building in evidence-based decision making.** Benefitting from the education management information system (EMIS) which will have been further strengthened under the GPE-financed G2B Project, the proposed project with the support of a training service provider will aim to address this identified limitation by providing technical guidance to key MoE staff at the central (ministry staff), county (CEO officers) and district (DEO officers) levels on data management, EMIS functionality, and the use of available data (census, geographic information system (GIS) and performance data) for planning and decision-making.

Project coordination and M&E

76. A project coordination unit (PCU) for project implementation which will be established under the SMT of the MoE will coordinate and manage day-to-day operations for project implementation (see detailed implementation arrangements in Annex 1). This unit will reside inside the existing PDT which support the G2B Project and directly reports to the SMT.⁴² A Deputy Project Coordinator will be hired and responsible for the entire IRISE implementation, supported by technical focal-points for each component and other officers in key function areas such as FM, procurement, and safeguards. The PDT will be responsible for M&E as described briefly below and in further detailed in the M&E section. With regards to DLI achievement and verification, the PDT will be expected to work closely with an IVA recruited by the MoE to verify the achievement of targets set for Components 2-3, following the defined DLI verification protocols (*see Annex 2, DLI Matrix*), ensuring timely disbursement.

77. **M&E.** The PDT and specifically its M&E officer will be responsible for tracking the implementation of progress made on each of the project's PDO-level and intermediate results indicators. In addition to regular tracking of these indicators, the PDT will monitor progress on each of the project-supported activities, with support from component focal points. The PDT will be responsible for compiling reports on a semi-annual basis. As possible, the project will rely on government systems, including EMIS, for M&E and reporting purposes. The

⁴² The PDT currently only manages the GPE-financed G2B Project. The MoE will hire a Deputy Project Coordinator responsible for the GPE implementation only. Although both IRISE and GPE implementation units reside inside the PDT and may share some common resources for efficiency, each will have its own coordinator and a core team for managing the implementation of its respective project.



proposed project will also finance evaluations on the effectiveness and impact of both the girls' scholarship program and digital skills training interventions.

78. **Data collection and analysis.** The annual school census is the main source of school-level data and while this activity is currently supported under the G2B Project, its annual implementation over the course of this cycle will be supported under this component. Further, analysis of WAEC (WASSCE) data – an essential input into CPD/in-service teacher training will be supported. Finally, data on teacher payroll, information on new recruits, and data regarding the training of teachers will be collected and included in project reports.

79. **Communications.** Information-sharing and awareness-raising will be an important feature of the proposed project. A communications strategy will be developed to provide information on all of the interventions supported under the project, with a particular emphasis on the school-level interventions and the rehabilitation and renovation activities using a CEA. The project will ensure that communities are well informed of each of the project-supported activities and the project's objectives throughout the project life.

80. **TA and capacity-building.** To support effective project management and to build capacity, the proposed project will finance TA, including support for studies, surveys and evaluations, as well as targeted training for MoE staff and participating institutions guided by the analysis above – particularly in FM and procurement, environmental and social safeguards, and M&E responsibilities. In addition to providing targeted support to component focal points, the project will finance expert consultants as needed to support effective project implementation.

Component 5: Contingent Emergency Response Component (CERC) (US\$0)

81. **This component is included in accordance with paragraphs 12 and 13 of World Bank IPF Policy, contingent emergency response through the provision of immediate response to an Eligible Crisis or Emergency, as needed.** It will allow the Government to request from the World Bank rapid reallocation of project funds to respond promptly and effectively to an emergency or crisis. This would be the result of a natural disaster or crisis that has causes or has potential to cause major adverse impact on the education sector. An operations manual for this component will be developed if/when needed.

Project Lending Instrument

82. **The proposed project employs a hybrid lending instrument -- traditional financing (IPF) approach for interventions supported under Components 1 and 4 and an DLI based financing for Components 2 and 3.** The DLIs for the proposed project reflect the Government's education priorities and strategies for the sector. They include intermediate results, implementation performance targets and institutional reforms that build incrementally over the life of the project to increase access of youth, particularly girls and those in poor areas, to a better and more relevant education at the senior secondary level. Though this will be the first time that DLIs are included as part of a World Bank-funded project in Liberia, the G2B Project is using an RBF modality with DLIs. Experience to-date in other settings as well as in Liberia, have shown that a results-driven approach which incentivizes achievement can help drive systemic change at the local and national levels.

83. A total of six DLIs are included related to Components 2 and 3 (see Table 2 below for their justifications). Each of these DLIs has a time-bound disbursement-linked target (or disbursement-linked results, DLR) that have been designed to incentivize the Government to take critical steps towards expanding access and quality of education services at the secondary level (see Annex 2, DLI Matrix). From a disbursement perspective, these DLIs



are independent of each other (i.e., failure to achieve a target of one DLI does not impact the disbursement of funds associated with other DLI targets met).

Table 2. Justification of Each DLI Employed by IRISE

#	DLI	Justification
1	Increased girls' access, retention and completion in secondary education	Girls' access, stay and completion of SSSs in Liberia are very low due to well-documented factors such as socioeconomic and GBV. By providing interventions such as scholarships, female guidance counselors and community engagement under the project, it is expected that girls' access, retention and completion in secondary education will increase.
2	Improved pre-service teacher training	Teacher quality is one of the key factors contributing to student learning. In addition to subject content knowledge, good teaching pedagogy boosts student learning outcome. Given two-thirds of the teachers who teach in SSSs do not meet the government qualification requirement, it is important to address problems at its source where teachers are produced. Through interventions in curriculum and program review and revamping for pre-service teacher education under the project, it is expected that future teachers will have adequate knowledge and skills to teach future students with 21 st century skills.
3	Improved in-service teacher training	Liberian student performance on senior secondary exist exam WASSCE is very poor. Teachers are particularly challenged by mastering subject content knowledge and effective teaching skills. The issue is more severe in mathematics and science subject areas. The proposed intervention of establishing a new teacher in-service training system with a continuous feedback loop mechanism will try to address it through (a) diagnosing teacher training needs, (b) developing targeted training materials, and (c) delivering and evaluating training and its results, with follow-up support from VPIs, etc. It is expected
4	Improved qualification profile of the teaching workforce	Constrained by fiscal space and many employees over the mandatory retirement age of 65 still on the payroll, the MoE is unable to recruit qualified teachers, especially in math and science subject areas, to improve the qualification profile of the teaching workforce. With the intervention of supporting the Government enforce its civil service employment policy by removing teachers who have reached or are over the mandatory retirement age, fiscal space will be freed up to help improve the qualification profile of the teaching workforce.
5	Increased access to textbooks at the senior secondary level	Besides lack of funding, the current textbook shortage in Liberia is mostly caused by an inefficient textbook management system, from planning, procurement, to delivery and tracking. For better results, it is important to ensure that the present textbook management system is improved before investing in procuring more textbooks. Also, for better alignment with the national curriculum, it is better for the country to have its own textbooks. With the interventions under the project, an improved textbook management system will be established and Liberia will produce its own textbooks to enable the country moving to an online learning material platform for providing free textbooks in future.
6	Improved access to basic digital skills training for senior secondary students	Though ICT is part of the revised curriculum for senior secondary education, it has not been implemented due to resource constraint. To enable the education system to meet the 21 st century skills requirement and help students to have opportunities of being exposed to and developing digital skills, the project will provide interventions in supporting the MoE to develop an ICT application in education strategy and helping the Ministry to identify a more effective approach to move forward.



84. **Eligible Expenditures Programs (EEPs).** The Government has developed a strategic roadmap for education transformation outlined in the National Education Summit (2019-2023) to advance the education sector in Liberia through a set of cross-cutting programs rather than levels of education. Programs such as School Quality, Teacher Education and Management, Curriculum and Assessment, Student Well-being, etc. will benefit secondary education. Although reforms are currently under discussion, Liberia’s national budget is not delineated by sub-sector, and it is therefore difficult to track expenditures in secondary education per se. However, as the project has identified line items in the budget that directly impact spending on that sub-sector and has designated these as the EEPs. It is these budget line items that are linked to the engagement areas to be supported under the proposed project and where the Government must show expenditures in order to allow reimbursement by the project. The total education sector budget for the duration of the project (four years) is expected to be approximately US\$144 million or US\$36 million per annum. It is expected that the Government will maintain its recurrent budget for the secondary sub-sector.

85. The selected EEPs comprise non-procurable items from both the recurrent and development budgets of the MoE as presented in Table 1 below.

Table 1: Eligible Expenditures Programs (for Components 2 and 3)

National Budget Code*	Description	Fiscal year 2018/2019 projected Expenditures
	Compensation of MoE Employees	US\$ million
211101	Basic Salary – Civil Service	US\$34.123
211110	General allowance	US\$1.620
211116	Special allowance	US\$.056
211126	Professionals	US\$.203
	Services	
221903	Staff Training – Local	US\$.024
221907	Scholarships – Local	US\$.050
221909	Capacity Building	US\$.124

86. **The World Bank’s financial management (FM) guidelines will apply to the entire project and the World Bank’s procurement guidelines will apply to Components 1 and 4⁴³.**

C. Project Beneficiaries

87. **The primary beneficiaries of the project are students of secondary school-age as well as teachers in public and community SSSs. Specifically, the project will benefit:**

- a. Approximately: (i) 4,800 students in public and community SSSs who will attend the newly constructed or expanded schools under the project; (ii) 35,000 students who will attend existing public and community SSS and benefit from the rehabilitation and renovation school grants as well as female guidance counselor services; (iii) 3,000 female students in the four targeted counties who will receive girls' education scholarships aimed at increasing transition and completion at the senior secondary

⁴³ See World Bank’s Guidelines IPF with DLIs, issued on April 17, 2018.



education level; (iv) 5,400 students who will participate in digital skills training activities; and (v) 105,875 students in all SSSs in the country who will have access to online learning materials and of these, 39,800 students in public and community SSS who will receive textbooks developed and distributed under the project.

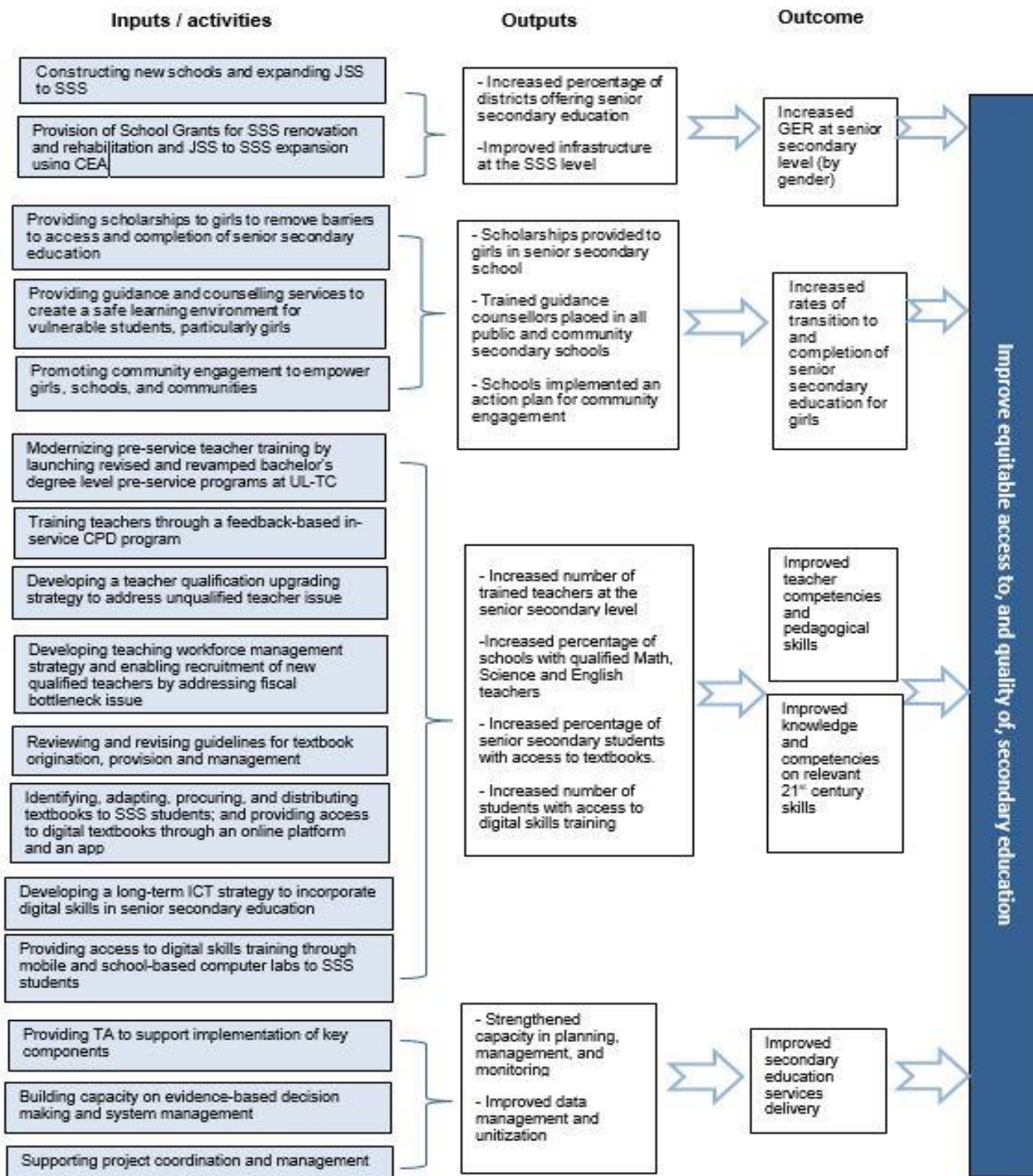
- b. Approximately 6,600 teachers (and teachers in training), who: (i) work in schools which have been constructed or expanded by the project; (ii) who participate in either pre-service and in-service teacher skills development and associated trainings provided by the proposed project. Additionally, it is estimated that approximately 1,700 staff (estimated 1,200 are teachers) will benefit from the teaching workforce clean-up either by those overdue to be retired, or those coming on to be added to the payroll.
- c. About 250 education administrators who would be directly impacted by the TA to be provided, the development of teacher workforce management and ICT strategies, improved decentralized data analysis, and efficiencies in accountability. These administrators would include about 50 central MoE Staff, 16 CEOs, 124 DEOs, and 156 VPIs, etc.

88. In the medium and long-term, the project will indirectly benefit all 18,000 teachers on the payroll through improved deployment and management of the workforce and all future senior secondary students through its system-level reforms and capacity-building measures targeting staff/trainers for pre-service training (in teacher training colleges) and in-service training.



D. Results Chain

Figure 2: IRISE Project Results Chain





E. Rationale for World Bank Involvement and Role of Partners

89. Rationale for World Bank support of the proposed investment includes:

- a. **The growing demand for secondary education in Liberia.** A growing demand for secondary level education is being fueled by higher completion rates in basic education and the fact that the Liberian population is moving away from agriculture and non-wage employment. Yet the supply of senior secondary schooling is limited – with the current system ill-prepared to meet the growing demand.
- b. **The limited investment in secondary education by the Government and other DPs relative to other sub-sectors.** The sub-sector receives fewer resources from the Government as part of the education budget and from DPs as part of outside investments (with the large majority of funding allocated towards primary and only recently junior secondary education). Further, of the resources provided to the sub-sector, the largest share is allocated towards covering recurrent expenditures (primarily salaries), leaving few discretionary resources to finance activities aimed at increasing access or improving the quality of education provided at the secondary level.
- c. **The critical role of secondary schooling in preparing Liberian youth for entering the job market.** Senior secondary education provides an opportunity for students to further acquire and refine skills necessary for the labor market – making access to quality secondary education a critical investment in Liberia. Research in Liberia, among other settings, provides strong evidence that investments in secondary education often have high public and private returns and, as such, promoting access to quality secondary education can play a key role in strengthening the human capital base, thereby promoting the economic development of the country.
- d. **The global experience acquired by the World Bank in supporting governments to increase access and improve the quality of secondary education.** The World Bank has worked closely with several governments to design and implement secondary education projects (in Ghana, Bangladesh and Nepal, among others). The World Bank has the technical know-how and is well-placed to support the Government in addressing challenges facing the secondary education sub-sector.
- e. **The long-term engagement of the World Bank in the education sector in Liberia.** The World Bank has developed a strong partnership with the Government in the education sector and has provided strategic leadership to the Government in its efforts to increase access, improve quality and promote good governance in the education sector. In addition to the growing World Bank portfolio in Liberia, the World Bank has been the Grant Agent for two GPE-funded projects in Liberia (including the ongoing G2B Project), allowing it to further develop its understanding of the specific needs and challenges faced by Liberia’s education sector and the implementation environment including institutional strengths and weaknesses.
- f. **The project’s focus was agreed in close collaboration of the Government and other DPs and was informed by country-specific analytical work.** The project builds on principles of selectivity and complementarity with other initiatives financed by DPs in the sector and the need to help the Government deliver on improving senior secondary education. With exception of the European Union (EU) who are embarking on intensive support to the technical and vocational education and training (TVET) sub-sector, there are no major donors currently active in senior secondary education – further underscoring the importance of the World Bank’s investment through the proposed project.



F. Lessons Learned and Reflected in the Project Design

90. **The proposed project is guided by lessons learned from other World Bank-supported investments in the country's education sector and in other similar low-resource settings in and outside the region.** Some of the main lessons informing project design and preparation included:

- a. **Adopting an integrated approach to key sector challenges is essential for reducing inefficiencies in program delivery.** The GPE-financed Liberia Basic Education Project (GPE-BEP, P117662) supported the Government in addressing a number of sector challenges, however, the design stretched the limited capacity within the Government and included interventions in a number of areas that were not similar in nature (school grants, deworming, early childhood development [ECD], etc.). The proposed project's design is, therefore, more streamlined into the Ministry's operations and executed directly by the various bureaus, allowing the Government to focus on key areas and counties that will allow the project to achieve its PDO.
- b. **Close coordination with DPs during preparation and strong buy-in from the Government are essential to effective project design and promoting sustainability of interventions.** Given the World Bank's work in Liberia, and specifically in the education sector to date, the World Bank has developed a partnership with other sector actors through a number of fora, including participation in the Local Education Group (LEG) and the Education Sector Development Committee (ESDC). These partnerships were important in guiding the focus of this project towards senior secondary investment on the basis of significant needs and limited support – even guiding the World Bank's focus away from TVET as the EU was planning to invest in this sub-sector. Throughout preparation, the World Bank has worked closely with the MoE to select and design relevant and context-appropriate interventions, in turn, gaining significant buy-in from the Government, which in addition to ensuring effective implementation can promote the sustainability of investments.
- c. **Increasing girls' participation in schools cannot rely solely on interventions which address supply-side issues, they also must address demand-side issues using innovative and evidence-based approaches.** The provision of scholarships to girls and young women has been an effective intervention in increasing girls' attendance, retention and completion in school. The training and deployment of female guidance counselors, which is being practiced in other settings, though this is relatively new to Liberia, addresses a number of issues which are important in encouraging girls' participation in school – increasing their sense of safety, feeling supported, and also having female role models within the school – all of which can positively influence their experience in the education system.
- d. **Using an RBF modality can effectively shift the emphasis of project implementation away from outputs and more towards results.** There are an increasing number of education projects financed by the World Bank that use an RBF approach to strengthen education systems by aligning and incentivizing actors around achievement of results. Some of the benefits of using the RBF modality observed include: (a) an increased focus of policy dialogue on identifying and implementing those changes which can generate sought results; (b) attracting and retaining much-needed attention (from policy makers to parents) on the ultimate results that are sought; (c) aligning a number of important (yet often uninvolved) actors in the pursuit of results (for example, Ministry of Finance and Development Planning (MFDP)); and (d) instilling a culture of measurement, which can eventually be institutionalized through strengthening the country's systems and capacity. Some of the projects which have effectively used an



RBF modality (e.g., Ghana Secondary Education Improvement Project (P145741), Punjab Education Sector Project (P102608)), highlighted the importance of establishing a robust M&E system to measure performance and refine interventions – for the successful use of the RBF modality.

- e. **Including a CERC allows the project some flexibility in addressing immediate needs in a crisis, events which are more frequent in low-income settings.** The importance of having contingency funding in the event of a crisis was highlighted under the implementation of the Revitalizing Education Development in Sierra Leone REDiSL Project (P133070) which was approved and became effective during the EVD crisis. An unallocated amount (as part of the design) allowed the project to provide resources to the Government in responding to the crisis. The proposed project also includes a CERC which would allow the project to deal with any unforeseen crisis or calamitous event should one occur. The component will allow for quick reallocation of funding and provision of immediate resources to the client to address its most pressing needs.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

91. **The implementation of the proposed project will be the responsibility of the MoE.** As the project's main implementing agency, it will ensure contributions required of its own departments/bureaus/divisions, the CSA, and the MFDP are timely and of quality and will work closely with relevant bureaus and staff to ensure effective project implementation. The main executive body of the MoE is the SMT. Responsible for policy direction and decision-making for the sector, the SMT will be the main decision-making body for the proposed project in collaboration with other governmental and non-governmental agencies/organizations, as needed. Similar to the ongoing G2B Project being implemented at the basic education level, at the county and district levels, CEOs and DEOs, respectively, are expected to facilitate the implementation of IRISE-supported activities and support the central ministry to monitor the progress of project implementation. The specific roles and responsibilities of CEOs and DEOs with regards to each project component will be articulated in the PIM.

92. **Project implementation.** Day-to-day operations under the project will be delegated by the MoE to the PDT which has a team dedicated exclusively to the project. The PDT reports directly to the SMT of the Ministry and will liaise with entities inside and outside the Ministry to support implementation of project activities. The PDT's team for the IRISE Project will comprised of a Deputy Project Coordinator dedicated exclusively for coordinating IRISE's implementation, technical focal points (each focusing on one project component except for Components 2 and 3 which may have more than one focal point – due to the size of the component/number of activities), plus additional consultancies to meet the financial and procurement needs of the project. The composition of the PDT, and relevant roles and responsibilities have been finalized with ToRs included in the draft PIM which will be finalized by project effectiveness.

93. **The MoE will work with and rely on other government institutions for achievement and verification of results Components 2 and 3** (using the RBF modality). The organizations will include: the MFDP (including its Project Financial Management Unit (PFMU) responsible for fiduciary reporting, and the Aid Management and Coordination Unit who will support the MoE in M&E for the project), the CSA (responsible for salary and compensation to teachers based on qualifications), and the MCSS (responsible for education services within Monrovia). Lastly, it will also require coordination and collaboration with WAEC, the administrator of standard



national examinations. These arrangements will also be articulated in the PIM.

94. **Specific bureaus and divisions within the MoE will be responsible for implementation of specific project sub-components, with outsourcing and support from private firms.** The *Bureau of General Administration* is expected to lead on monitoring efforts to increase enrollment and the capital investment activities. It will be supported by the PDT. The *Bureau of Teachers' Education* will oversee the implementation of interventions in pre-service and in-service teacher training with close collaboration with the TTIs and service providers. The *Bureaus of Girls' Education and Scholarship* will co-lead on the efforts to increase girls' participation in SSS, working to develop the relevant program and associated roadmap. The annual school census will remain the responsibility of the *Bureau for Planning, Research and Development*. Component 4 will be implemented under the supervision of the SMT of the MoE in cooperation with the MFDP with targeted capacity-building support provided to the MoE under this Component to effectively manage and implement the proposed project.

95. **A PIM will be developed as a condition of project effectiveness.** The PIM will define the roles and responsibilities of all stakeholders in the project and will outline all aspects of project activities and their implementation. For more details on implementation arrangements, see Annex 1.

B. Results Monitoring and Evaluation Arrangements

96. **Project monitoring indicators.** The project will monitor and report on progress on each of the PDO-level and intermediate results indicators and relevant core sector indicators. These indicators, their definition, as well as baseline and target values can be found in the Results Framework (RF). The PDT will be responsible for compiling these data on a semi-annual basis for reporting purposes.

97. **Monitoring project implementation.** The PDT (under the MoE) will play a lead role in monitoring of implementation progress and implementation of specific activities under the project. The PDT will carry out regular meetings with the focal-points of each of the components who will provide relevant information on progress of activities under their respective components. The PDT with support from its M&E specialist will be responsible for compiling information on each component, to include relevant data, and progress on each of the PDO-level and intermediate results indicators every six months. A report will be produced every six months with an annual progress report produced at the end of the year. This progress report will inform the implementation status and results report (ISR) and may be shared with other donors during an education sector review. The PDT will also be responsible for providing information related to progress made/achievement with regards to DLIs. The PDT will also be responsible for providing interim financial reports (IFRs) and audit reports. The project will use the MoE's existing M&E infrastructure as much as possible to carry out M&E activities, with support for capacity-building provided under Component 4.

98. **An IVA will be recruited to verify the achievement of the DLI targets.** Its role will extend to desk reviews as well as field visits and focus group discussions as a way to collect feedback from beneficiaries. The IVA's role will entail verifying that due diligence has been carried out in achieving all targets. This will be done through reviews of documentation and sample surveys. The MoE will recruit the IVA who will also undertake the verification of DLIs in year 0.

99. **The project will rely heavily on data from different sources including the annual school census, the school quality assessment (SQA) tool, and other data gathered by DEOs, student learning assessments, household surveys, and payroll registry.** These data sources may come from the Liberia Institute of Statistics and Geo-Information Services (LISGIS) which collects DHS and Household Income and Expenditure Survey (HIES) data



for the Government (and related datasets) or the CSA which is a repository for teacher payroll data.

C. Sustainability

100. There are a few elements which highlight the likelihood that the proposed interventions will be sustainable. First, the project directly responds to the government sector and larger development priorities. The MoE has committed to implementing the G2B-ESP for 2017-2021 and is supplementing it with a 10-year (2018-2028) vision articulated in the Declaration for Education in the National Summit in May 2018. Under the two frameworks, the Government has detailed its aims and strategic plans to: strengthen access and quality at all levels; improve efficiency, effectiveness and conditions of service delivery for both teachers and students; improve the quality and relevance of secondary education especially in the science fields; and strengthen accountability and management systems at the central and local levels. Second, the envisaged reforms supported by the proposed project have strong ownership by the Government. The Government is intent on improving the quality of human capital and in building a qualified and skilled labor force. Throughout project preparation, there has been strong engagement and commitment from the Government to the proposed project's objectives and activities. This is further highlighted in the proposed use of government structures to carry out this project, with the MoE in the lead and working with other institutions to improve the quality of education services.

101. Support to the sector is also aligned and further enforced by a public financial management project currently under preparation which aims to improve the delivery of basic services including education as well as the potential inclusion of an education-focused policy trigger in an upcoming development policy financing (DPF) operation in FY20. Discussions are underway to more clearly identify these linkages as these would enhance the effective delivery of this project. At the same time, the sustainability of project outcomes depends to some extent on the fiscal sustainability of the interventions proposed. As described in Annex 3, the national education budget is expected to increase only marginally from 2016/2017 to 2020/2021, with limited shifts from year to year during this period, after having been reduced by US\$95 million from 2015/2016. The total government budget in 2016/2017 was US\$528 million and it is projected to increase to US\$531 million in 2020/2021. Public spending for education is expected to hover around 14 to 15 percent. School staff salaries, including teachers' salaries, can be accommodated within existing budget forecasts and within the fiscal space to be created by retiring teachers over 65 years of age and the MoE has indicated its commitment to cover these. However, given the limited fiscal capacity of the government, there is a risk that some of these interventions, including the provision of girls' scholarships (in their current form) may not be financed in the future. The Government has, however, expressed its commitment to continuation of key activities supported under the project, including maintaining the female guidance counselors in SSS and covering their annual salaries. The project will assess the effectiveness and impact of these interventions to help garner support both from the Government and other DPs moving forward.



IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

(i) Technical

102. **The project's focus on senior secondary education is aligned with government priorities and research which highlights the important role of secondary education in building human capital.** The project design, targeting and interventions reflect the Government's priorities as highlighted in the PAPD as well as the country's G2B-ESP, including increasing access to education, improving learning outcomes as well as the quality of secondary education services. Further, as shown by global evidence highlighted in the World Development Report (WDR) 2018 – *Realizing the Promise of Education for Development*, secondary education is critical to building human capital and achieving higher economic growth rates. The project's emphasis on increasing access to education as well as improving the quality and relevance of education – by strengthening science and math education and promoting the acquisition of digital skills among youth – is consistent with the Government's priority of ensuring that youth are equipped with market-relevant/21st century skills.

103. **The project's design is sound and informed by available evidence on sector needs in Liberia and effective approaches.** The project design including its targeting was guided by findings from the SESA (2018, draft) prepared by the World Bank team on a SESA which provides an in-depth review and analysis of secondary education provision and quality in Liberia, highlighting successes to date as well as the number of challenges faced. The proposed design includes evidence-based interventions and activities – that have demonstrated their effectiveness in increasing equitable access and/or improving the quality of education including: the introduction of CPD for teachers to improve teaching quality, providing youth with the opportunity to take digital skills training; use of a CEA for some of the construction activities; and targeted financial support for girls to complete SSS. The technical justification for the proposed project activities is as follows:

- a. **Community-based construction.** This approach using CEA to construction has been used in a number of contexts in Africa including in Togo, Ghana, and Sudan. One of the first countries to fully adopt this approach was Mauritania that launched this model in 1989 and has successfully been implementing it for over 25 years. A large body of research highlights this as a cost-effective and efficient approach to improving the quality of the teaching and learning environment in schools while also empowering communities to work closely with schools and to strengthen community cohesion.
- b. **Girls' scholarships.** According to the 2016 ESA, median years of education attainment for young females in poor and rural households is 1.8 years, which was five times less than the median educational attainment for male youth from wealthy, urban households, which is 10.6 years. Women and girls are under-represented in nearly all levels of education, including secondary education, where girls account for 47 percent of the secondary school students. The major reasons informing under-representation of girls in secondary education include household financial constraints and pregnancy. A growing body of research underscores the potential positive impact of targeted scholarships on attendance and education outcomes. Even a modest valued benefit (around 2 to 3 percent of the median recipient household income) has shown to be associated with increases in school enrollment and attendance by 25 to 30 percentage points. Studies have also provided evidence that merit-based scholarships are effective in increasing attendance and improving test scores. One example is Bangladesh which has made remarkable gains in human development indicators over the past few decades. It has almost achieved universal access



at the primary level and has achieved primary completion rate of 80 percent. Gender equity was attained at the primary and secondary levels well ahead of the MDG target for 2015. Bangladesh's pioneering female secondary school stipends have resulted in a dramatic increase in girls' enrollment. Building on decades of success and lessons learned, recently 1.24 million girls in 6,700 secondary schools have benefitted from the World Bank-supported Secondary Education Quality and Access Enhancement project.⁴⁴ In order to circumvent concerns related to merit-based scholarships reaching those who are better off in the first place, a broad-based approach will be used to reach all girls in public and community SSS in four targeted counties (with the highest dropout rates) for the first round, and then shifting to a merit-based scholarship in subsequent rounds.

- c. **Feedback-based CPD.** A large body of research shows that the quality of teaching in the classroom -- dependent largely upon content knowledge and pedagogical skills of teachers -- is critical to student learning outcomes (Bashir et al., 2018). Teaching quality can be improved through CPD approaches with effective in-service training programs that include initial subject-specific face-to-face training, followed by regular classroom observations and mentoring/coaching with direct feedback to teachers (Béteille and Evans, 2019)⁴⁵. For hard-to-teach subject content areas where students' performance tends to be lower, more targeted content and pedagogy training can support teachers to become more effective in helping students master these areas. Such targeted training has been done in other countries where promising results have been achieved, including in Tanzania.⁴⁶ Given low student performance on the WASSCE in Liberia, the proposed project -- similar to the approach in Tanzania - will help the Government establish a feedback-based CPD system which will upgrade teachers' content knowledge and pedagogical skills to improve their classroom teaching.
- d. **Digital skills acquisition among youth.** According to the WDR 2018, technological innovations and expansion are transforming the skills required to compete for jobs and to access economic opportunities. Further, it states that in the absence of digital skills, Africa may not be able to industrialize in a manner that moves workers from the informal sector to the formal sector. The situation is particularly severe in Liberia, where on one hand penetration of technology (access to internet, smartphones and even electricity) is low, but on the other hand, the country has a large youth population, a majority (77 percent in 2010) of which is employed in the low wage and low productivity informal sector. In order to place Liberia on a different growth path, investments in digital skills and access to technology are imperative. Acquisition of basic digital skills features on the continuum for range of occupations in the digital economy; and can provide a critical skills for moving into the job market. Support to such interventions are consistent with the aim of supporting the digital transformation of Africa through the Digital Economy for Africa (DE4A) initiative.

⁴⁴ Kremer, Miguel and Thornton (2009) study a merit-based scholarship program for girls in Kenyan primary schools. Girls in the top 15 percent of a government-administered test were eligible to receive payment of school fees and an amount paid to the family for school supplies. They find large effects on eligible girls' attendance rate, as well as test scores.

⁴⁵ Kraft, Blazar, & Hogan (in press) findings support this claim. They analyzed 44 coaching programs in the U.S and find average large positive effects on teacher instruction (0.58 standard deviations) and more modest effects on student learning (0.15 standard deviations).

⁴⁶ In Tanzania, a scheme of retooling secondary school math and science teachers was piloted where student assessment results were analyzed, content knowledge gaps were identified, training materials and modules were developed and delivered to math and science teachers with the combination of face-to-face and online/offline self-paced blended approach, followed with classroom observations, critique in teacher groups and continued support via texting messages, etc. The independent evaluation showed promising results and the Government decided to scale up the trial. From Mtebe, Kondoro, Kissaka, and Kibga (2015): "Using SMS Mobile Technology to Assess the Mastery of Subject Content Knowledge of Science and Mathematics Teachers of Secondary Schools in Tanzania", *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, Vol:9, No:11.



104. **The EEPs have been carefully selected to ensure the necessary investments are supported to allow for delivery of results.** Of the annual budget allocated to education totalling approximately US\$85 million, a sub-set of programs have been selected as eligible to ensure a focus on those areas that fall within the project's scope. Given the structure of the national budget allocation, it is not feasible to tease out the programs specifically and uniquely capture the Government's efforts in senior secondary education. For that reason, proxy line items have been identified that have direct and strong linkages to secondary education and achievement of the project results. These programs are primarily focused on salaries and associated allowances paid to teachers, training, scholarships, and capacity building.

(ii) Economic

Rationale for Public Investment in Senior Secondary Education

105. **A strong case for investing in senior secondary education can be made on the grounds of economic growth, poverty reduction and social cohesion.** The sector assumes greater importance in developing country contexts, where both supply-side and demand-side barriers to educational attainment prevent households from enrolling, transitioning and completing senior secondary education. Supply-side barriers, primarily access and quality, are a major issue in the Liberian context, where 25 districts currently do not have a SSS and pass rates on the final SSS exam are poor. On the other hand, demand side barriers such as high levels of poverty, food insecurity, parental pressures and perceptions, early marriage and pregnancy among girls and violence (corporal punishment and GBV against girls) also prevent individuals from completing high school.

106. **The returns to senior secondary education in Liberia are high.** Based on data from HIES 2016, an individual who has completed SSS will on average, earn 18 percent more than an individual who has completed JSS. Further, according to HIES 2016, over 50 percent of senior secondary graduates worked in paid employment and almost 30 percent worked in non-agricultural self-employment sector. In comparison, only 25 percent of JSS graduates and 17 percent of primary school graduates were employed in the paid employment sector. Absolute and extreme poverty rates for households where the head of household has a secondary education degree are also 10 percentage points lower than households where the head has primary education.

107. **Secondary education plays a critical role in increasing overall economic growth.** One of the most important arguments in favor of promoting secondary education is its effect on diffusion of technology. Barro (1999) analyzed a panel of about 100 countries between 1960-1995 to understand the factors influencing economic growth and found that economic growth is positively related to the (1960) starting level of average years of adult male school attainment at secondary and higher levels but is insignificantly related to years of primary attainment. Secondary education completion rate was also found to be strongly correlated with a country's ability to absorb technology and knowledge spillover through increases in factor productivity, which is increasingly seen as a driver for growth in today's globalized world.

108. **Educational attainment is positively correlated with improved health outcomes, women's empowerment and gender equality.** Studies show that the impact on health and other indicators is stronger for those who complete secondary education, relative to primary education. Further, a well-educated and skilled labor force, can attract foreign capital and technology and lead to an increase in employment opportunities, thus reducing social conflict and unrest. Limited educational opportunities for girls and barriers to completing 12 years of education cost countries between US\$15 trillion and US\$30 trillion in lost lifetime productivity and earnings. On average, women with a secondary school education earn almost twice as much as those with no education at



all. Universal secondary education for girls could virtually eliminate child marriage (entering in a union before the age of 18) and, as a result, substantially reduce the risk of early childbearing for women (having a first child before the age of 18). It is hypothesized that universal secondary education for girls could contribute to reducing total fertility rates by one-third in high fertility countries such as Liberia, and to increased contraceptive use by one-fourth in many countries in Sub-Saharan Africa. Universal secondary education may also contribute to a reduction in global population growth by 0.3 percentage points. The reduction in population growth could generate US\$3 trillion in benefits per year, cumulative over time. In Sub-Saharan Africa, universal secondary education for girls could increase women's knowledge of HIV/AIDS and their ability to make decisions for their own healthcare. It could also improve their psychological well-being, reduce the risk of intimate partner violence, and reduce the risk of under-five mortality and malnutrition for children.⁴⁷

109. The expected flow of anticipated expenditures and returns related to the Project were also analyzed to calculate the Internal Rate of Return (IRR). The economic analysis yielded an NPV of US\$101 million and an IRR of 20 percent, indicating that the project is economically justified. For additional information on the economic benefits of the project and return on proposed investment, please see Annex 3.

B. Fiduciary

(i) Financial Management

110. **A consolidated PFMU under the MFDP is currently managing the FM for World Bank-financed projects and this same arrangement is proposed for the IRISE Project.** The proposed project will build on existing FM arrangements/the FM and accounting functions of the project will be undertaken using the current FM arrangements for the G2B Project in the PFMU which are assessed as adequate for ensuring that: (1) the funds are used only for the intended purposes in an efficient and economical way; (2) the preparation of accurate, reliable and timely periodic financial reports; (3) the safeguarding of the entity's assets; and (4) adequate fiduciary assurances are provided through an independent audit of the project. The PFMU is implementing 90 percent of the World Bank's and other donor-financed projects in Liberia and the FM capacity developed under these projects is adequate to meet the World Bank's requirements. The PFMU staff is comprised of 24 staff headed by the Director who is a Chartered Accountant, and all the staff in PFMU are familiar with World Bank procedures.

111. **The control risk is assessed as 'Moderate' and the overall residual FM risk for the project is assessed as 'Substantial' due to the articulated risk mitigating measures.** A detailed overview of the assessment findings and proposed risk mitigation measures, including among others: provision of the FM services by the project accountant in the PDT who will also be responsible for the other World Bank-Funded projects, an independent verification agent (IVA) and external auditing by an independent qualified auditor. The new project will need to be accommodated within the existing FM system. In order to do this, the PFMU will need to: (a) update the current accounting manual; (b) customize the existing accounting software to include the account of the new project in order to generate the IFRs and financial statement; and (c) recruit external auditors. This should be completed within six months of the project becoming effective.

112. **Disbursements for Components 1 and 4 will be on a report-based disbursement method (IFRs).** The PFMU will open a segregated DA in U.S. dollars at a commercial bank agreed to by the World Bank where IDA disbursements will be made. The details of the FM assessment and aspects of the financial arrangements can be

47 Wodon, Quentin; Montenegro, Claudio; Nguyen, Hoa; Onagoruwa, Adenike. 2018. Missed Opportunities : The High Cost of Not Educating Girls. The Cost of Not Educating Girls Notes Series.



found in Annex 1.

113. **Components 2 and 3 will be DLI-based with EEPs selected from the National Budget.** The EEPs will be verified by the Comptroller and Accountant General (CAG) and will be submitted to the World Bank on an annual basis. A third party (IVA) will be recruited to verify the DLIs achieved. The project will not disburse until an IVA is recruited. The IVA will issue a verification report on all DLIs. The project is to prepare a reconciliation statement among EEPs paid (as verified by the CAG) and DLI achieved (as verified by IVA) and submit this statement along with withdrawal applications for such reconciliation, requesting disbursements of the lesser of both amounts. The external audit report should be submitted to the World Bank six months after the end of the financial year.

(ii) Procurement

114. **Applicable Procurement Procedures.** The Government of Liberia (GoL) will carry out procurement under the proposed project in accordance with (a) World Bank's *Procurement Regulations for IPF Borrowers (Procurement in IPF – Goods, Works, Non-Consulting and Consulting Services; July 2016, revised November 2017 and August 2018)*; (b) World Bank's *Guidelines on Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated July 1, 2016 and*; (c) other provisions stipulated in the Financing Agreement (FA).

115. **Preparation of the Project Procurement Strategy for Development (PPSD).** The MoE (with TA from the World Bank) has prepared a PPSD, which describes how procurement activities will support the achievement of the PDO and deliver value for money. The procurement strategy is linked to the project implementation plan to ensure proper sequencing of activities. For each contract financed by IDA, the procurement method, market approach, cost estimate, World Bank review requirements, and timeframe for implementation has been agreed between the GoL and IDA and duly reflected in the project procurement plan. Based on the PPSD findings, MoE has prepared a procurement plan covering activities for the first 18 months, which has been agreed by the World Bank. The procurement plan was reviewed and cleared and disclosed on the World Bank's external website where the procurement plan will be updated in agreement with the World Bank annually or as required to reflect the project's actual implementation needs and improvements in institutional capacity. The project will use the World Bank's Systematic Tracking of Exchanges in Procurement (STEP) as a primary tool to submit, review and clear all procurement plans. The PPSD, a summary of which is described in further detail in Annex 1, is a living document that should be regularly updated during project implementation to provide necessary justifications for procurement arrangements, procurement plans, and their updates.

116. **Procurement Implementation Arrangements.** Procurement implementation, contract management and the related decision-making authority under the proposed project shall be carried out by MoE through its PDT. The World Bank carried out a Procurement Capacity and Risk Assessment of the MoE, rating the procurement risk as Substantial. The assessment identified major risks that would adversely affect project implementation if not mitigated. Details of the key risks and the corresponding mitigation measures are provided in Annex 1.

C. Safeguards

(i) Environmental Safeguards

117. The project activities, especially those supported under Component 1, will involve civil works including construction of new structures and rehabilitation of pre-existing structures in selected urban and rural areas. The



proposed construction and rehabilitation activities have the potential to negatively impact the environment as well as expose communities and workers to construction related health and safety risks and hazards. General construction related concerns such as noise, air pollution, soil erosion, waste generation, water pollution, and worker's and community health and safety will be taken into account. The project triggers OP 4.01 Environmental Assessment and OP 4.11 Physical Cultural Resources and is categorized as "B" in view of its potential environmental, health, and safety impacts, risks and hazards.

118. It is expected that much of the civil works will be carried out on pre-existing school premises, so the impacts on the natural environment will be very limited with respect to site clearing for construction works. However, extraction of local materials such as sand, gravel, water, timber, etc., especially in rural areas, may adversely affect community resources as well degrade sensitive natural ecosystems if not managed properly. Proposed rehabilitation and construction of water and sanitation facilities including latrines, wells, and handwashing facilities have the potential to expose facility users and communities to unintended public health risks. Improper siting of these infrastructures can lead to pollution of groundwater resources and transmission of waterborne diseases. The project also has the potential to attract workers from outside project communities. Rural communities where some of the proposed works will be executed generally lack skilled labor. So, the potential for labor influx and its associated environmental impacts and risks will need to be managed.

119. The exact locations of the proposed infrastructure works have not been finalized at this stage. Therefore, the project has adopted a framework approach. The MoE has developed an Environmental and Social Management Framework (ESMF) which was cleared by the World Bank on April 25, 2019. The ESMF was disclosed publically by the MoE in country on April 29, 2019, and by the World Bank on its website on April 29, 2019. The ESMF establishes clear procedures and methodologies for the environmental and social planning, review, approval and implementation of civil works to be financed under the Project. Environmental and Social Management Plans (ESMPs) as well the Contractor's Environmental and Social Management Plan (CESMP) will be prepared as and when required during implementation.

120. Though the MoE has implemented World Bank-financed projects in the past, its capacity for safeguard implementation is low. Projects implemented in the past were generally low risk projects (Category C projects) for which the World Bank's requirements to prepare and implement safeguard instruments did not apply. Therefore, the MoE's capacity for safeguard implementation will need to be strengthened, and safeguard implementation structures at the national and county levels established.

(ii) Social Safeguards

121. Education plays an important role in improving the overall socio-economic conditions of the country. In the context of Liberia, future economic prosperity and stability of the country depend to an extent on inclusive education, which should be focused on the girls, persons with disabilities and other excluded group of people who could not avail the opportunities in education. The high prevalence of GBV in schools, sex-for-grades and teenage pregnancy often lead to early marriage and these collectively force female students to drop out of school. To reduce the number of school dropouts, the project plans to support girl students giving them scholarships to encourage their completion of senior secondary education and to motivate others to participate in education. The project plans to engage interested groups of people for the best results. It will begin with stakeholder identification, consultation and engagement. Increasing opportunities for girls to complete education may lead to rivalry with their male counterparts, which may require intensive consultations and community engagement to empower girls and community to promote changes in behaviour and attitudes.



122. The project has limited infrastructure development and civil construction. The locations for such infrastructures have not been identified yet, so the physical displacement of people and properties could not be anticipated at this stage, however some pre-existing structures could be modified and rehabilitated. It is expected that most of the civil works will be carried out within the existing school premises, so the negative impacts on the social environment will be very limited. However, extraction of local materials such as sand, gravel, water, timber, etc., especially in rural areas, may adversely affect community resources as well degrade sensitive natural ecosystems if not managed properly. The project-supported works may require workers from outside because community may not have sufficient skilled labor. This may create some unrest among local communities and mal adjustment between the outsiders and host communities. The interrelations among immigrant labor, contractors and the host community may need to be managed in more efficient ways.

123. The MoE has developed a Resettlement Policy Framework (RPF) to guide interventions, if any, on infrastructure developments. This framework was cleared by the World Bank on April 25, 2019. The RPF was disclosed publicly by the MoE in country on April 29, 2019 and by the World Bank on its website on April 29, 2019. To address the unavoidable negative impacts and loss to people or community due to the expansion of infrastructures, development of new infrastructures, restriction to the existing land use and involuntary displacement, the MoE shall develop a resettlement action plan (RAP) and implement it before actual impacts occur on people and properties or any intervention on the ground. The project activities, especially those supported under Component 1, will involve civil works including construction of new structures and rehabilitation of pre-existing structures in selected urban and rural areas. The proposed construction and rehabilitation activities have the potential to negatively impact people, properties and community resources. In view of Component 1, OP/BP 4.11 Physical Cultural Resources and OP/BP 4.12 Involuntary Resettlement are triggered. OP 4.12, which addresses the issues related to involuntary displacement, land acquisition, restriction to the land access and resettlement. OP 4.11 is related to cultural properties resources. These policies apply to the project.

124. During project preparation discussions were held with Ministry staff and relevant stakeholders including CEOs and DEOs, given the key role they will have in project implementation, about the importance of the visibility of and empowerment of women in the education sector, as teachers, role models, and students. Given the prevalence of GBV in and around schools and the practice of sex-for-grades, interventions will include mechanisms helping the authorities establish a grievance redress mechanism (GRM) and systemic support to students who are experiencing or witnessing violence, including abusive relationships, intra-family violence, and GBV. The project shall also attempt to make it inclusive for all people living in the project impact area. This project will aim to promote the participation and inclusion of persons with disabilities who traditionally face exclusion in the education system of Liberia. In addition to the World Bank GRS, a separate Greivance Redressal Management (GRM) will be established to manage the grievances raised by the project-affected people due to involuntary displacement under RAP implementation.

125. The World Bank CPF is closely aligned with Liberia's national priorities as laid in the country's strategic plan and the associated Agenda for Transformation emphasized a cross-cutting issue protecting the rights of vulnerable groups such as children, youth, persons with disabilities and those affected by HIV/AIDS. The project shall give priorities to vulnerable groups to access education and facilitate their further integration into the mainstream of the society.

126. **There are further social risks associated with the potential labor influx to target areas during construction activities.** These may include exacerbating social tensions, GBV, child labor and violence against



children (VAC), in addition to lack of adherence to labor and working conditions. To mitigate this, the project will ensure for appropriate measures and requisite staffing in contractor selection and supervision phases of civil works. The Recipient will be supported to expand the capacity of the Guidance and Counseling and Girls Education Units in the MoE to support projects in managing GBV and VAC.

(iii) Gender

127. **In the Liberian context and for the future economic prosperity and stability of the country, investing in girls' education, especially at the secondary level is critical.** This message is reinforced in the CPF 2019-2023 with "Building Human Capital to Seize New Economic Opportunities" detailed as a driving pillar for Liberian development. Global research applicable to the Liberian context supports that low educational attainment, especially at the secondary level, affects girls' life trajectories in many ways. Girls dropping out of school before completing a full cycle of secondary education are more likely to marry or have children early as well as be more vulnerable to intimate partner violence and a lack of decision-making ability in the household. In addition to high prevalence of early marriage, and lifetime physical and/or sexual intimate partner violence reported at nearly 40 percent⁴⁸, many Liberian girls and women face limited opportunity and choice and are highly vulnerable to abuse and exploitation. Survival, instead of education, becomes paramount. Marrying early, before these young women may be physically and emotionally ready to become wives and mothers impacts their health and well-being and also that of their future children. Children of mothers younger than 18 face higher risks of child mortality and being malnourished. The multi-generational impacts of conflict and fragility that have negatively impacted education and health outcomes including literacy rates (on literacy, Liberia ranks 144 out of 149 countries in the Global Gender Gap Report 2018 Country Index) and stunting means that cycles of poverty and extreme vulnerability persist at high rates. The early financial independence of younger women may lead to more exploitation within and outside the family. This will require intensive community engagement and to promote for selective changes in behavior to begin with.

128. **According to global research, an 18-year-old girl in Liberia is more likely to be married than to know how to read and write.** In 2015/2016, the girls' GER at the junior high school level was 53 percent and at the senior secondary level 39 percent. Limited access to education opportunities at the secondary level can be addressed through a diversity of supply and demand-side interventions to alleviate the specific constraints confronted by young women, their families and their communities. Mitigating, and in time, ending the constraints specific to girls and young women in Liberia requires sustained outreach and engagement with the target beneficiaries, their families and their communities. Building on the existing evidence through qualitative research including focus group discussions which enables a clear understanding of the context and constraints to align with the government priorities for girls' education is articulated in the PAPD. In the Liberian context, based on ongoing analysis and assessment, a multi-pronged approach is necessary to address the myriad of issues from low completion rates to teenage pregnancy to early marriage and GBV. These interventions should be targeted at the individual, school and community levels and advanced through district, county and national champions such as the Gender Coordinators in the CEOs and the Minister of Education at the highest level. Based on evidence and experience across countries, scholarships/stipends are one mechanism for addressing individual-level constraints. In Liberia, financial barriers are one of the leading constraints for young women to transition to grade 10 and complete their education.

129. **At the school level, the teacher workforce in Liberia is predominantly male.** Given the high prevalence of GBV in schools and sex-for-grades as well as teenage pregnancy often leading to early marriage and school

⁴⁸ Latest available data as reported by the LISGIS and corroborated by the Ministry of Health and Social Welfare.



dropout, safety mechanisms and accountability must be in place and enforced. A zero-tolerance policy should be championed from the highest national level and reinforced down to the classroom level. A culture of schools as safe spaces should be modeled and enforced and role models for girls must be visible. Female guidance counselors offering life skills and socio-emotional direction are a school-level intervention that can enable young women to be supported as they navigate their secondary education experience and foster empowerment and agency. At the community level, community leaders and elders must be engaged, along with the community as a whole, to work with schools to shift behaviors in culturally sensitive and appropriate ways while reinforcing that education investments in girls benefit girls, their families, their communities and the nation. Interventions targeting girls' education at the secondary level in Liberia endeavor to disrupt the intergenerational cycle of poverty by offering clear pathways of opportunity, agency and, ultimately, economic empowerment.

(iv) Citizens' engagement

130. **The project will enable citizens' engagement through the development and implementation of a communications strategy that includes community engagement activities to be executed by the PDT and supported through the MoE Communications team.** During project implementation, citizen engagement efforts will be prioritized especially for the project components relating to school construction and girls' education. A citizen engagement indicator has been included in the results matrix and addressed into the Environmental Safeguards and RPFs. To ensure and promote citizens' engagement, the project has targeted and will continue to target project beneficiaries (students and teachers) and stakeholders (parents and communities) during project preparation and implementation with the Ministry of Internal Affairs leading on the engagement efforts in coordination with MoE bureaus, the PDT and the World Bank. Throughout the project, citizens will be consulted and opportunities provided to collaborate with the project and discuss the project activities and sustainability.

(v) Climate Screening and Co-Benefits

Climate and Disaster Screening

131. **Climate and disaster risk screening has been completed for the project.** The exposure and impact rating are both High, and the outcome/service delivery rating is Moderate as the impact of climate change risks on service delivery can be mitigated by integrating appropriate risk reduction measures. Liberia is highly exposed to flooding and an increase in the sea-level. Floods are a recurrent natural disaster in Liberia and are expected to become worse with climate change, especially along the coasts due to rising seas. Increased flooding and rainfall are also associated with higher susceptibility to disease outbreaks of malaria, cholera, Ebola and diarrheal diseases with the highest threat in rural areas. Higher rainfall and flooding will reduce access to schools, decrease school attendance and in extreme cases, lead to physical damage and school shutdowns. Disease outbreaks during the rainy season will also result in lower attendance and may also lead to school closure (as was done during the EVD crisis).

Climate Co-Benefits

132. The project includes several components to minimize anticipated risk from climate hazards. Under this project, education facilities will be constructed, that will be reinforced with additional flood defense and water harvesting mechanisms to improve resilience. Further, schools will be equipped with additional latrines and adequate water supply, to contain the spread of diseases. Location of schools will also be based on ensuring minimal exposure to the risk of increased flooding.



133. The project also has several soft components to mitigate the impact of climate change. The project will support pre-service and in-service senior secondary teacher education, where issues around climate change, their impact on Liberia and mitigation and adaptation techniques will be incorporated in the training modules. The project is designed to support procurement of science textbooks for senior secondary students that inform the future workforce and prepare them to deal with the impacts of climate change. Further, to reduce the impact of climate change on girls' access to and completion of education, the project will provide financial incentives and support packages to girls at the senior secondary level to improve their transition and completion rates. The project also includes support for developing 21st century skills through a digital learning platform, which would provide opportunities for diversification out of climate sensitive livelihoods. Finally, the project includes the CERC, that would enable the Government to respond in a timely manner to any natural disaster that may occur during the life of the project. A comprehensive ESMF has also been developed to ensure due diligence to environment and social aspects. Combined, these features will reduce the anticipated risk from climate and geophysical hazards.

(vi) Grievance Redress Mechanisms

134. **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 Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

V. KEY RISKS

135. **In appraising the document, the team has taken into account Liberia's context of fragility, as well as the Government's strong commitment to education and prioritization of the sector.** The risk rating are presented in the datasheet of this paper.

136. **Political and governance risk is rated substantial.** The 2017 legislative and presidential elections marked the beginning of a new era for Liberia and peaceful transition of power was a landmark achievement in its history as a nation. All indications point towards continued progress and a path toward lasting peace and development. In this next political evolution, Liberia will work on strengthening the rule of law and carrying out meaningful security reform as a means of sustaining social gains earned since 2003. To do this, the Government has expressed commitment to monitor and secure the porous borders with neighbors, tackle corruption, and begin to rebuild confidence of citizens in public institutions. Liberia's substantial political and governance risks are largely associated with a lack of deep-rooted mistrust in the Government, coupled with historical fragility to external and internal shocks that would threaten its systems. Although recent elections proved to be peaceful and the transition of power nearly seamless, major events, including natural disasters, a return of EVD or other exogenous factors could lead to a shift in public support for the Government and thus complications in the public sector, including this project. While the proposed project does not include direct measures to mitigate such risks or their



impact, close monitoring of project implementation, clear reporting and decision-making arrangements, and third-party verification arrangements will help safeguard the effects on the project during implementation.

137. **Macroeconomic.** The risk has been modified since concept stage to high. While initially the economic outlook was positive with estimated economic growth for this year of 4.7, these estimates have been revised to 0.2 percent given high inflation. There is currently limited economic stability with high inflation reaching 21 percent in December 2018 and the International Monetary Fund (IMF) has called for improved fiscal policies – including those that aim to improve the monitoring, accountability and transparency of spending – as well as effort to increase the efficiency of government spending. Although revenue collection in Liberia showed improvements in the first half of the year, these gains have been overshadowed by high inflation – placing further constraints on a country with very limited resources. There is a risk that additional resources required to accommodate higher salaries for better qualified teachers may not be available. Additionally, fiscal space to recruit new teachers and contribute to school visits may be limited. The project will attempt to mitigate these risks by: ensuring that MoE budget projections are inclusive of the increase in teachers’ salaries due to project activities; supporting the MoE to retire teachers who have reached the mandatory retirement age 65 in an effort to reduce strain on payroll systems and budget; utilizing RBF to provide resource-based incentives for teacher deployment; working closely with other DPs to support sustained reform of the MoE chart of accounts and budget process; and ensuring pro-poor targeting of project activities.

138. **Sector strategies and socioeconomic policies are at moderate risk level.** The Government’s political platform emphasizes economic inclusion and improved access to quality education. The poverty-focused agenda targets universal basic education for all Liberians, regardless of economic and social status, and the authorities are working to increase the number of qualified teachers and more effectively deploy resources across regions and subsectors. The Government is also targeting young people who are outside the formal education system for training in market-relevant skills. The G2B-ESP outlines a nine-point strategy for improving the equity, quality, and relevance of education.⁴⁹ Implementation of this agenda has already begun, with the Government vetting all teachers in schools and removing 1,900 ghost teachers from the payroll in order to add teachers who meet qualification standards. The Government has increased frontline resources by restructuring and downsizing the MoE. Liberia’s DPs and CSOs contributed to the development of the G2B-ESP which was then endorsed by members of the ESDC (stakeholder representatives of the education sector including DPs, Ministry, nongovernmental organizations (NGOs), and others). Based on these advancements in the sector and DP engagement, the risk rating for these categories has been rated moderate.

139. **Technical design of the project risk is rated substantial.** The project’s overall design is in line with the Government’s vision and priorities for the sector. The project design will consider the limited capacity and resources available in the education sector, particularly in the MoE and at school levels. As such, it will aim to deliver on some results using DLIs with TA to help the Government advance on operations. For those components where DLIs are not feasible or appropriate, allocations have been provided for technical support.

140. **Institutional capacity for implementation and sustainability risks are substantial.** The proposed project will support a number of activities, some of which rely on the Ministry while others involve different stakeholders including CEOs, DEOs, other ministries, and DPs. Though this seems like this may increase risk, it is expected to

⁴⁹ The G2B-ESP is based on the Liberia ESA, a comprehensive review and evidence-based assessment of the education sector over the past 15 years. The G2B-ESP includes an implementation plan outlining roles and responsibilities for central, ministerial, and decentralized education administration. The Government developed the G2B-ESP through a consultative process that included DPs, NGOs, and civil society.



help mitigate the load on the Ministry to deliver. A separate PCU (within the existing PDT, established for the G2B project) will be established. The PCU (within the PDT, is embedded in the Ministry) will be solely dedicated to day-to-day administration of the project and monitoring its results and efforts will be made to further strengthen capacity in these areas. However, where there is no significant local experience, organizations with experience implementing similar projects (such as UNICEF's community-based early childhood education (ECE)) will be actively engaged and TA will be used to support specific activities which are technically complex being delivered through RBF. Pilots will be relied upon to test interventions, planned research or previous experience (such as the ELSRP) will be referenced, and risk mitigation strategies for sub-components will be implemented (including strong engagement with the National Teachers' Association of Liberia - NTAL).

141. **Fiduciary.** The overall FM risk is assessed as high but reduced to a residual risk rating of substantial in view of the articulated risk mitigation measures. Risk mitigation measures include the use of the PFMU, which has experience with World Bank's FM procedures, and the strengthening of the on-the-job training to be provided for the internal auditors at the PFMU and the finance officers in the PDT. The PFMU would maintain financial records and would submit quarterly unaudited IFRs to IDA 45 days after the end of each quarter. In addition, the management and the PFMU will submit audited accounts, annually, six months after the end of each fiscal year, in accordance with the legal requirements set forth in the FA.

142. **Environmental and social risks are moderate.** The potential environmental risks of the project are moderate. Although much of the infrastructure activities will involve rehabilitation of pre-existing structures, there are three new sites proposed for schools which will require vetting. Otherwise, new structures will be on designated school premises so identification and acquisition of land would not be required. Social safeguard policies 4.10 and 4.12 related to cultural artifacts and resettlement as a precaution are triggered. During project preparation, measures were taken to include awareness and training for all staff involved, including target beneficiaries about the importance of the visibility of and empowerment of women in the education sector, as teachers, role models, and successful students. Given the prevalence of GBV in and around schools and the practice of sex-for-grades, interventions will include support to help the authorities develop a grievance mechanism and systemic support to students who are experiencing or witnessing violence, including abusive relationships, intra-family violence, and sexual and gender-based violence (SGBV).

143. **Stakeholders risk is moderate.** There may be discussion surrounding the decision to focus on secondary education given challenges the education sector faces at the primary level. However, as has been described, secondary education is the sub-sector where donor contributions are not forthcoming. Furthermore, the project will be prepared in close collaboration with stakeholders including civil society members, and donor partners to ensure synergies and maximize impact for beneficiaries. Thus, the potential stakeholders' risks of the project are moderate.



VI. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Liberia

Improving Results in Secondary Education (IRISE)

Project Development Objectives(s)

The Project Development Objective (PDO) is to improve equitable access to, and quality of, secondary education.

Project Development Objective Indicators

Indicator Name	DLI	Baseline	Intermediate Targets			End Target
			1	2	3	
Improve equitable access to secondary education						
Increase in GER at the senior secondary level (Percentage)		39.00	41.00	42.00	44.00	46.00
Female GER (Percentage)		37.00	39.00	40.00	42.00	44.00
Number of direct project beneficiaries (Number)		0.00	2,857.00	15,512.00	51,195.00	146,800.00
Female - number of direct project beneficiaries (Number)		0.00	1,343.00	7,207.00	21,346.00	66,208.00
Improve quality of secondary education						
Increase in public and community SSSs with a qualified teacher each in Math, Science and English (Percentage)		31.00	31.00	35.00	39.00	40.00



Intermediate Results Indicators by Components

Indicator Name	DLI	Baseline	Intermediate Targets			End Target
			1	2	3	
Improving access and learning environment at the senior secondary level						
National school infrastructure strategy developed and adopted (Yes/No)		No	Yes	Yes	Yes	Yes
Number of new senior secondary schools constructed (Number)		0.00	0.00	0.00	3.00	3.00
Percentage of public and community senior secondary schools receiving the school renovation and rehabilitation grant (Percentage)		0.00	0.00	0.00	75.00	90.00
Percentage of districts offering senior secondary schooling (Percentage)		80.00	80.00	90.00	98.00	100.00
Increasing opportunities for girls to transition to and complete senior secondary education						
Percentage of public and community senior secondary schools offering female guidance counselor services (Percentage)		7.00	7.00	34.00	83.00	97.00
Number of girls receiving scholarships to attend public and community senior secondary schools (Number)		0.00	0.00	900.00	1,800.00	2,700.00
Percentage of public and community senior secondary schools that have implemented an action plan for community engagement (Percentage)		0.00	30.00	60.00	80.00	90.00
Improving quality and relevance of senior secondary education						
Revised pre-service teacher		No	No	No	No	Yes



Indicator Name	DLI	Baseline	Intermediate Targets			End Target
			1	2	3	
training program launched (Yes/No)						
Number of faculty from teacher training institutions trained to upgrade their qualification (Number)	0.00	0.00	0.00	0.00	15.00	30.00
Percentage of in-service teachers trained through the feedback-based CPD program (Percentage)	0.00	0.00	0.00	0.00	25.00	95.00
Number of VPIs trained on instructional leadership (Number)	0.00	0.00	0.00	0.00	50.00	150.00
Teaching workforce management strategy developed and adopted (Yes/No)	No	No	No	Yes	Yes	Yes
Textbook guidelines revised and adopted (Yes/No)	No	No	No	Yes	Yes	Yes
Percentage of public and community senior secondary schools with access to textbooks identified, adapted under the project (disaggregated by subject) (Percentage)	0.00	0.00	0.00	0.00	0.00	90.00
English (Percentage)	0.00	0.00	0.00	0.00	0.00	90.00
Math (Percentage)	0.00	0.00	0.00	0.00	0.00	90.00
Biology (Percentage)	0.00	0.00	0.00	0.00	0.00	90.00
Chemistry (Percentage)	0.00	0.00	0.00	0.00	0.00	90.00
Physics (Percentage)	0.00	0.00	0.00	0.00	0.00	90.00
Number of public and community senior secondary students with access to digital technology (Number)	0.00	0.00	0.00	0.00	4,725.00	5,400.00



Indicator Name	DLI	Baseline	Intermediate Targets			End Target
			1	2	3	
Students with improved digital competencies as a result of the project (Percentage)		0.00	0.00	0.00	75.00	90.00
Female students with improved digital competencies as a result of the project (Percentage)		0.00	0.00	0.00	75.00	90.00
Students benefiting from direct interventions to enhance learning (CRI, Number)		0.00	2,857.00	15,198.00	43,414.00	138,781.00
Students benefiting from direct interventions to enhance learning - Female (CRI, Number)		0.00	1,343.00	7,143.00	20,405.00	65,227.00
Number of direct project beneficiaries (teachers) (Number)		0.00	0.00	50.00	6,780.00	6,811.00
Community engagement and grievance redress guidelines adopted and grievance redress mechanism operational (Text)		There is no operational community engagement linked to a grievance redress mechanism	MoE develops and adopts community engagement and grievance redress guidelines and establishes grievance redress mechanism; and each county establishes community grievance redress mechanism	50 percent of grievances received in Year 2 of the project addressed within the timeframe specified in the grievance redress guidelines	70 percent of grievances received in Year 3 of the project addressed within the timeframe specified in the grievance redress guidelines	80 percent of grievances received in Year 3 of the project addressed within the timeframe specified in the grievance redress guidelines
Capacity building, technical assistance, project coordination, and monitoring and evaluation						
Need assessment study completed (Yes/No)		No	Yes	Yes	Yes	Yes
Program to address institutional capacity gaps developed (Yes/No)		No	No	Yes	Yes	Yes
MoE staff trained (Number)		0.00	0.00	0.00	154.00	154.00



Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Increase in GER at the senior secondary level	This indicator measures the number of students enrolled at senior secondary level, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education (ages 15 to 17 in the case of Liberia).	Yearly	Annual school census/School Quality Assessment report	Annual school census/School Quality Assessment	MoE
Female GER	This indicator measures the number of female students enrolled at senior secondary level, regardless of age, expressed as a percentage of the official school-age female population corresponding to the same level of education (ages 15 to 17 in the case of Liberia).	Yearly	Annual school census/School Quality Assessment report	Annual school census/School Quality Assessment	MoE
Number of direct project beneficiaries	This indicator tracks the number of direct project beneficiaries, including senior secondary school students and teachers who benefit directly from the interventions to enhance	Yearly (cumulative)	Project monitoring report, Annual School Census / School	Project monitoring report, Annual School Census / School Quality Assessment report	MoE



	access, quality and relevance of senior secondary education; VPIs who would receive instructional leadership training; teacher training institutions faculty who receive qualification upgrading training and SMC members who receive training on school construction, rehabilitation and renovation management. The indicator will be measured separately for female and male beneficiaries.		Quality Assessment report		
Female - number of direct project beneficiaries	This indicator tracks the number of female direct project beneficiaries, including senior secondary school students and teachers who benefit directly from the interventions to enhance access, quality and relevance of senior secondary education; VPIs who would receive instructional leadership training; TTI faculty who receive qualification upgrading training and SMC	Yearly (cumulative)	Project monitoring report, Annual School Census / School Quality Assessment report	Project monitoring Report, Annual School Census / School Quality Assessment report	MoE



	members who receive training on school construction, rehabilitation and renovation management.				
Increase in public and community SSSs with a qualified teacher each in Math, Science and English	This indicator tracks the proportion of all public and community senior secondary schools with at least one math, one science (biology, chemistry, or physics) and one English teacher that meet the government teacher qualification requirement at the senior secondary level.	Yearly (cumulative)	Annual school census/School Quality Assessment Report	Annual school census/School Quality Assessment	MoE

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
National school infrastructure strategy developed and adopted	This indicator tracks whether a national school infrastructure strategy, that establishes norms and standards for basic school construction, has been developed and adopted by the MoE and MPW.	Once	Project monitoring report	Project monitoring report	MoE and MPW
Number of new senior secondary schools constructed	This indicator tracks the number of new senior secondary schools	Yearly (cumulative)	Project monitoring report and	Project progress report and Annual school census/School Quality	MoE and MPW



	completed and fully furnished for use.		Annual school census / School Quality Assessment Report	Assessment	
Percentage of public and community senior secondary schools receiving the school renovation and rehabilitation grant	This indicator tracks the percentage of public and community senior secondary schools that have prepared a school improvement plan and received at least two tranches of the school grants for renovation and rehabilitation.	Yearly (cumulative)	Project monitoring report and number of financing agreements signed with communities	Project monitoring report	MoE
Percentage of districts offering senior secondary schooling	This indicator tracks the percentage of districts in the country with at least one senior secondary school	Yearly (cumulative)	Project Monitoring Report and Annual School Census Report / School Quality Assessment Report	Report and Annual School Census/School Quality Assessment	MoE
Percentage of public and community senior secondary schools offering female guidance counselor services	This indicator tracks the percent of public and community senior	Yearly (cumulative)	CSA-MoE employee payroll	CSA-MoE employee payroll registry and survey report	Bureau of Fiscal affairs and Human Resource Development at the MoE



	secondary schools that have a qualified female guidance counselor on staff, offering guidance counselor services as per the ToR, which specifies the role and responsibilities of the counselor.		registry and a survey of a representative sample of schools to determine whether a female guidance counselor is on staff and provides guidance counselor services.		and independent survey firm (IVA)
Number of girls receiving scholarships to attend public and community senior secondary schools	This indicator tracks the number of female senior secondary students that receive financial scholarship as per the Girls' Education Scholarship guidelines in the targeted districts (Bomi, Gbarpolu, Grand Bassa and Sinoe). Recipient girls must meet the selection and performance criteria outlined in the guidelines.	Yearly (cumulative)	Project monitoring reports and a survey of a representative sample of beneficiaries to determine receipt of the scholarship money by the targeted beneficiaries and to ensure that all the criteria in the	Project monitoring report, Annual School Census / School Quality Assessment report, and survey	Division of Scholarships at the MoE and independent survey firm (IVA)



			guidelines were met.		
Percentage of public and community senior secondary schools that have implemented an action plan for community engagement	This indicator tracks the percentage of public and community senior secondary schools that have implemented an action plan to increase community engagement and participation in reducing violence in schools, specially towards girls.	Yearly (cumulative)	Project monitoring reports and survey of a representative sample of schools and interviews of community members to determine whether schools have implemented the action plan	Project monitoring report and survey report	MoE and independent survey firm (IVA)
Revised pre-service teacher training program launched	This indicator tracks the launch of the new pre-service teacher training programs (in English Education, Math Education, and Science Education) for new entrants at UL-TC. New training program will be based on the revised curriculum and newly developed training modules and will be taught by faculty who have been trained on	Once	Project monitoring report	Project report	UL-TC and IVA



	the new programs.				
Number of faculty from teacher training institutions trained to upgrade their qualification	This indicator tracks the number of faculty from public teacher training institutions (including UL-TC, the Teachers College at Tubman University, and Regional Teacher Training Institutions (TTIs)) who have completed a masters program or higher at a regional or international teacher training institutions.	Yearly (cumulative)	Project monitoring reports and survey of trained faculty	Project report and survey report	Bureau of Teachers' Education at the MoE and independent survey firm
Percentage of in-service teachers trained through the feedback-based CPD program	This indicators tracks the percentage of public and community senior secondary teachers who teach English, Math, Biology, Chemistry, or Physics who have been trained through the feedback-based CPD program using training modules that are developed based on students' WASSCE results and teacher vetting test results.	Yearly (cumulative)	Project Monitoring Reports and survey of a representative sample of teachers trained under the program	Project Monitoring Report and survey report	Bureau of Teachers' Education at the MoE and independent survey firm (IVA)
Number of VPIs trained on instructional leadership	This indicator tracks the number of VPIs at public and community senior secondary schools who have been trained on	Yearly (cumulative)	Project monitoring reports and survey of a representative	Project report and survey report	Bureau of Teachers' Education at the MoE and independent survey firm (IVA)



	instructional leadership as part of the feedback-based CPD program.		e sample of VPIs trained under the program		
Teaching workforce management strategy developed and adopted	This indicator tracks the development and adoption of the teaching workforce management strategy, which identifies mechanisms on how to effectively recruit qualified teachers and other staff, deploy them efficiently based on school needs, including hard to recruit areas, provide CPD and qualification upgrading opportunities, and incentivize and monitor performance.	Once	Project monitoring report	Project report	Departments of Administration and Instruction at the MoE
Textbook guidelines revised and adopted	This indicator tracks the review and revision of the MoE's Proposed Guidelines for Textbook Origination, Provision and Management and adoption of the revised guidelines.	Once	Project monitoring report	Project monitoring report	Center for Curriculum Development and Textbook Research at the MoE
Percentage of public and community senior secondary schools with access to textbooks identified, adapted under the project (disaggregated by subject)	This indicator tracks the percent of public and community senior secondary schools that have received the textbooks	Yearly	Project monitoring report and Annual school	Project monitoring report, Annual School Census/ School Quality Assessment report and survey	MoE and Independent survey firm (IVA)



	identified, adapted and approved under the project, in the ratio of at least 1 textbook for every 5 students by subject and grade at the school level.		census / SQA report and survey of a representative sample of public and community senior secondary schools to determine availability of textbooks to students.		
English	This indicator tracks the percent of public and community senior secondary schools that have received English textbooks identified, adapted and approved under the project, in the ratio of at least 1 textbook for every 5 students.	Yearly	Project monitoring report, Annual School Census/ School Quality Assessment report and survey of a representative sample of public and community senior secondary schools to	Project monitoring report, Annual School Census/ School Quality Assessment report and survey	MoE and Independent survey firm (IVA)



			determine availability of textbooks to students		
Math	This indicator tracks the percent of public and community senior secondary schools that have received the Math textbooks identified, adapted and approved under the project, in the ratio of at least 1 textbook for every 5 students by grade at the school level.	Yearly	Project monitoring report, Annual School Census/ School Quality Assessment report and survey of a representative sample of public and community senior secondary schools to determine availability of textbooks to students	Project monitoring report, Annual School Census/ School Quality Assessment report and survey	MoE and Independent survey firm (IVA)
Biology	This indicator tracks the percent of public and community senior secondary schools that have received the Biology	Yearly	Project monitoring report, Annual School	Project monitoring report, Annual School Census/ School Quality Assessment report and survey	MoE and Independent survey firm (IVA)



	textbooks identified, adapted and approved under the project, in the ratio of at least 1 textbook for every 5 students by grade at the school level.		Census/ School Quality Assessment report and survey of a representative sample of public and community senior secondary schools to determine availability of textbooks to students.		
Chemistry	This indicator tracks the percent of public and community senior secondary schools that have received the Chemistry textbooks identified, adapted and approved under the project, in the ratio of at least 1 textbook for every 5 students by grade at the school level.	Yearly	Project monitoring report, Annual School Census/ School Quality Assessment report and survey of a representative sample of public and community	Project monitoring report, Annual School Census/ School Quality Assessment report and survey	MoE and Independent survey firm (IVA)



			senior secondary schools to determine availability of textbooks to students		
Physics	This indicator tracks the percent of public and community senior secondary schools that have received the Physics textbooks identified, adapted and approved under the project, in the ratio of at least 1 textbook for every 5 students by grade at the school level.	Yearly	Project monitoring report, Annual School Census/ School Quality Assessment report and survey of a representative sample of public and community senior secondary schools to determine availability of textbooks to students	Project monitoring report, Annual School Census/ School Quality Assessment report and survey	MoE and Independent survey firm (IVA)
Number of public and community senior secondary students with access to digital	This indicator tracks the number of students in	Yearly (cumulative)	Project Monitoring	Project Monitoring Report and Annual	Division of STEM and EMIS at the MoE and



technology	public and community senior secondary schools with access to digital technology. Access is defined as student enrollment in grades 10, 11 and 12 in the schools receiving the computer labs, and in the schools in Montserrado county covered by mobile labs.	e)	Report and Annual School Census / School Quality Assessment Report	School Census/School Quality Assessment	independent survey firm (IVA)
Students with improved digital competencies as a result of the project	This indicator tracks the percent of target beneficiaries, who received training under the project, with higher digital competencies as compared to competencies measured at baseline. Competence areas proposed in UNESCO’s Digital Literacy Global Framework, will be used to develop baseline and annual assessments. Target beneficiaries include students benefiting from the four mobile labs and the eight school-based computer labs.	Yearly (cumulative)	Project monitoring report	Project monitoring report	Division of STEM at the MoE
Female students with improved digital competencies as a result of the project	This indicator tracks the percent of female target beneficiaries, who received training under the project,	Yearly (cumulative)	Project Monitoring Report	Project Monitoring Report	MoE



	with higher digital competencies as compared to competencies measured at baseline. Competence areas proposed in UNESCO’s Digital Literacy Global Framework, will be used to develop baseline and annual assessments. Target beneficiaries include students benefiting from the four mobile labs and the eight school-based computer labs.				
Students benefiting from direct interventions to enhance learning		Yearly (cumulative)	Project monitoring report and EMIS	Report	MOE
Students benefiting from direct interventions to enhance learning - Female		Yearly (cumulative)	Project monitoring report and EMIS	Report	MOE
Number of direct project beneficiaries (teachers)	It measures the number of teachers who benefit directly from the interventions to enhance access, quality and relevance of senior secondary education.	Yearly (cumulative)	Project Monitoring Report and Annual School Census/School Quality Assessment Report	Project Monitoring Report and Annual School Census/School Quality Assessment	MoE



Community engagement and grievance redress guidelines adopted and grievance redress mechanism operational	This indicator tracks the development and adoption of a community engagement and grievance redress guidelines by the MoE, the establishment of grievance redress mechanism at the MoE and county levels and the operationalization of the grievance redress mechanism by addressing grievances within the timeframe specified in the grievance redressal guidelines .	Yearly	Project monitoring report	Project monitoring report	MoE
Need assessment study completed	This indicator tracks the undertaking and completion of a study to assess the capacity building needs of MoE staff, DEOs, CEOs and staff of other education institutions involved in the project implementation.	Once	Project monitoring report	Project monitoring report	MoE
Program to address institutional capacity gaps developed	This indicator tracks the development of a capacity development program for MoE staff, CEOs, DEOs and staff of other education institutions involved in the project implementation in	Once	Project monitoring report	Project monitoring report	MoE



	collaboration with UL-TC. As part of the program development training materials and program implementation guideline will be developed.				
MoE staff trained	This indicator tracks the number of MoE staff, DEOs, CEOs, and staff of other education institutions who are trained through the newly developed capacity development program.	Yearly(cumulative)	Project monitoring report	Project monitoring report	MoE

Disbursement Linked Indicators Matrix

DLI 1		Increased girls' access, retention and completion in secondary education			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount	
Output	No	Percentage	5,000,000.00	21.00	
Period	Value		Allocated Amount (USD)	Formula	
Baseline	0.00				
Year 0	0.00		0.00	Details provided in DLI verification protocol	
Year 1	20.00		1,000,000.00		
Year 2	50.00		1,500,000.00		



Year 3	90.00		2,000,000.00	
Year 4	100.00		500,000.00	
DLI 2	Improved pre-service teacher training			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Process	No	Percentage	2,000,000.00	8.30
Period	Value		Allocated Amount (USD)	Formula
Baseline	0.00			
Year 0	25.00		500,000.00	Details in DLI verification protocol
Year 1	50.00		500,000.00	
Year 2	75.00		500,000.00	
Year 3	75.00		0.00	
Year 4	100.00		500,000.00	
DLI 3	Improved in-service teacher training			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Output	Yes	Percentage	5,000,000.00	21.00
Period	Value		Allocated Amount (USD)	Formula
Baseline	0.00			
Year 0	0.00		0.00	Detailed in DLI verification protocol



Year 1	30.00		1,500,000.00	
Year 2	60.00		1,500,000.00	
Year 3	80.00		1,000,000.00	
Year 4	100.00		1,000,000.00	
DLI 4	Improved qualification profile of the teaching workforce			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Output	No	Percentage	4,000,000.00	17.00
Period	Value		Allocated Amount (USD)	Formula
Baseline	0.00			
Year 0	25.00		1,000,000.00	Details in verification protocol
Year 1	50.00		1,000,000.00	
Year 2	50.00		0.00	
Year 3	75.00		1,000,000.00	
Year 4	100.00		1,000,000.00	
DLI 5	Increased access to textbooks at the senior secondary level			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Output	Yes	Percentage	5,500,000.00	23.00
Period	Value		Allocated Amount (USD)	Formula



Baseline	0.00		
Year 0	9.00		500,000.00 Details in DLI verification protocol
Year 1	27.00		1,000,000.00
Year 2	27.00		0.00
Year 3	63.36		2,000,000.00
Year 4	100.00		2,000,000.00

DLI 6	Improved access to basic digital skills training for senior secondary students			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Process	No	Percentage	2,500,000.00	10.40
Period	Value		Allocated Amount (USD)	Formula
Baseline	0.00			
Year 0	0.00		0.00	
Year 1	40.00		1,000,000.00	
Year 2	80.00		1,000,000.00	
Year 3	80.00		0.00	
Year 4	100.00		500,000.00	



Verification Protocol Table: Disbursement Linked Indicators

DLI 1	Increased girls’ access, retention and completion in secondary education
Description	Year 1: 1.1 - Achieved when the Girls’ Education Scholarship Program Guidelines including the selection criteria are developed and adopted by MoE, satisfactory to the World Bank (US\$ 0.5 million). 1.2 - Achieved when the ToR for Female Guidance Counselors including roles and responsibilities as well as required qualifications are defined and adopted by MoE (US\$0.5 million). Year 2: 1.3 - Achieved when at least 900 female students enrolled in Grade 10 in public and community senior secondary schools in Bomi, Gbarpolu, Grand Bassa and Sinoe (4 Selected Counties) who meet the selection criteria outlined in the Girls’ Education Scholarship Program Guidelines received the yearly scholarship amount for the 2020/21 academic year [Baseline: 0] (US\$1.5 million). Year 3: Achieved when at least 1,800 female students enrolled in Grade 10 or Grade 11 in public and community senior secondary schools in Bomi, Gbarpolu, Grand Bassa and Sinoe (4 Selected Counties) who meet the selection criteria outlined in the Updated Girls’ Education Scholarship Program Guidelines received the yearly scholarship amount for the 2021/22 academic year. Girls’ Education Scholarship Program Guidelines will be updated based on a process evaluation of the program in the previous year [Baseline: 0] (US\$1.0 million). 1.5 - Achieved when at least 150 Female Guidance Counselors (in addition to the existing female guidance counselors deployed in senior secondary schools in the Monrovia Consolidated School System) who meet the requirements outlined in the ToR are hired, trained and deployed to public and community senior secondary schools [Baseline: 12] (US\$1.0 million). Year 4 1.6 - Achieved when at least 2,700 female students enrolled in Grade 10, Grade 11 or Grade 12 in public and community senior secondary schools in Bomi, Gbarpolu, Grand Bassa and Sinoe (4 Selected Counties) who meet the selection criteria outlined in the previously Updated Girls’ Education Scholarship Program Guidelines received the yearly scholarship amount for the 2022/23 academic year [Baseline: 0](US\$0.5 million).
Data source/ Agency	For 1.1 and 1.2: Project monitoring report For 1.3, 1.4, and 1.6: Project monitoring report and a survey of a representative sample of beneficiaries For 1.5: Annual School Census / School Quality Assessment report, CSA-approved annual payroll registry and project monitoring report
Verification Entity	For 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6: IVA
Procedure	1.1 - The Division of Scholarships at the MoE submits the Girls’ Education Scholarship Program Guidelines to PDT who sends it to the IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement. 1.2 - The Bureau of Student Personnel Services at the MoE submits the ToR for female guidance counselors to PDT who



	<p>submits them to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>1.3 - The Division of Scholarships at the MoE submits the list of scholarship recipients to the PDT who sends it to the IVA for verification. IVA undertakes a survey of a representative sample of beneficiaries to determine receipt of the scholarship money by the targeted beneficiaries and to ensure that all the criteria in the guidelines were met. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>1.4 - The Division of Scholarships at the MoE submits the list of scholarship recipients to the PDT who sends it to the IVA for verification. IVA undertakes a survey of a representative sample of beneficiaries to determine receipt of the scholarship money by the targeted beneficiaries and to ensure that all the criteria in the guidelines were met. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>1.5 - The Bureau of Fiscal Affairs & Human Resources Development at the MoE submits the current CSA-approved list of the hired, trained and deployed female guidance counselors who are on the teacher payroll to PDT who sends it to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>1.6 - The Division of Scholarships at the MoE submits the list of scholarship recipients to the PDT who sends it to the IVA for verification. IVA undertakes a survey of a representative sample of beneficiaries to determine receipt of the scholarship money by the targeted beneficiaries and to ensure that all the criteria in the guidelines were met. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
DLI 2	Improved pre-service teacher training
Description	Year 0 2.1 - Achieved when the implementation plan to modernize Pre-service teacher training is developed by UL-TC, satisfactory to MoE and World Bank (US\$0.5 million). Year 1 2.2 - Achieved when the Pre-service Bachelor’s degree curricula for English education, Math education and Science education (Physics, Chemistry and Biology) at UL-TC are reviewed and



	<p>revised on the basis of the review and finalized. To be finalized the revised curricula have to be validated through a stakeholder workshop including (but not limited to) MoE representatives and faculty from teacher training institutions (US\$0.5 million). Year 2 2.3 - Achieved when training materials for Pre-service Bachelor’s degree programs in English education, Math education and Science education (Physics, Chemistry and Biology) are developed by UL-TC based on the finalized curricula and validated in a stakeholder workshop involving stakeholders including (but not limited to) representatives from the MoE and faculty from teacher training institutions (US\$0.5 million). Year 4 2.4 - Achieved when the revised Pre-service Bachelor’s degree programs in English education, Math education and Science education (Physics, Chemistry and Biology) commence in UL-TC – being available to new entrants using the revised curricula, the new training materials, and taught by faculty who have been trained on the new program (US\$0.5 million).</p>
Data source/ Agency	For 2.1, 2.2, 2.3 and 2.4: Project monitoring report
Verification Entity	For 2.1, 2.2, 2.3, and 2.4: IVA
Procedure	<p>2.1 - UL-TC submits the implementation plan to modernize its Pre-service teacher training programs to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>2.2 - UL-TC submits the finalized Pre-service Bachelor’s degree curricula in English education, Math education and Science education (Physics, Chemistry and Biology) to the PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>2.3 - UL-TC submits the validated training modules and materials to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>2.4 - UL-TC submits the registration and attendance record from the Pre-service Bachelor’s degree programs and implementation progress reports to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>



DLI 3	Improved in-service teacher training
Description	Year 1 3.1 - Achieved when the student LSHSCE/WASSCE test results by subject and by question from the last three years (2016-2018) are analyzed for at least 5 subjects (Math, English, Biology, Chemistry, and Physics), gaps in subject content mastering are identified and content gap analysis report drafted and finalized (US\$1.5 million). Year 2 3.2 - Achieved when teacher training materials and modules are developed by MoE based on the content gap analysis report from Year 1 for at least 5 subjects (Math, English, Biology, Chemistry and Physics) and validated by stakeholders including a sample of senior secondary school teachers selected by the MoE from schools in and outside Montserrado and representatives from teacher training institutions (US\$1.5 million). Year 3 3.3 - Achieved when at least 25 percent of all public and community senior secondary school teachers who teach English, Math and Science (Physics, Chemistry or Biology) are trained using the training materials and modules developed in Year 2 and training program is piloted and evaluated by the Bureau of Teachers' Education with support from the service provider [Baseline: 0] (US\$1.0 million). Year 4 3.4 - Achieved when 95 percent of all public and community senior secondary school teachers (cumulative of percent in Year 3) who teach English, Math and Science (Physics, Chemistry or Biology) are trained. Training in Year 4 conducted using the updated training materials and modules on the latest available students' WASSCE test results (US\$0.5 million for 70 percent of teachers trained (cumulative of percent in Year 3) and additional US\$0.1 million for each 5 percentage point increase in percent of teachers trained (capped at 95 percent)) [Baseline: Year 3 achievement] (US\$1.0 million).
Data source/ Agency	For 3.1: Content gap analysis report and project monitoring report For 3.2: Project monitoring report For 3.3: Training evaluation report, project monitoring report For 3.4: Project monitoring report
Verification Entity	For 3.1, 3.2, 3.3 and 3.4: IVA
Procedure	<p>3.1 - The Bureau of Basic & Secondary Education at the MoE submits the content gap analysis report to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>3.2 - The Bureau of Teachers' Education at the MoE submits the validated training materials and modules, as described in the achievement description of DLI 3.2, to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>3.3 - The Bureau of Teachers' Education at the MoE submits the list of teachers who received the training and the training evaluation report to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the</p>



	<p>World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>3.4 - The Bureau of Teachers' Education at the MoE submits the list of teachers who received the training as described in the achievement description of DLI 3.4, to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
DLI 4	Improved qualification profile of the teaching workforce
Description	<p>Year 0 4.1 - Achieved when CSA-MoE employee payroll registry received showing the list of all staff and identifying staff who have reached the Mandatory Retirement Age of 65 years (US\$1.0 million). Year 1 4.2 - Achieved when (a) CSA-MoE employee payroll registry received showing no staff at or above the Mandatory Retirement Age of 65 years; and (b) list of teachers who were on the CSA-MoE employee payroll registry in DLI 4.1 and removed at Mandatory Retirement Age (age of 65 years) by Year 1, received (US\$1.0 million). Year 3 4.3 - Achieved when At least 80 percent of the number of secondary school teachers on the list described in DLI 4.2(b) replaced by new recruits, who meet the Government Teacher Qualification Requirements and at least 80 percent of the total number of teachers on the same list also replaced by new recruits, who meet the Government Teacher Qualification Requirements to teach at the level for which they are recruited [Baseline: 0] (US\$1.0 million). Year 4 4.4 - Achieved when at least 90 percent of all the number of teachers (cumulative of percent in DLI 4.3) on the list described in DLI 4.2(b) replaced by new recruits, who meet the Government Teacher Qualification Requirements to teach at the level for which they are recruited [Baseline: Year 3 achievement] (US\$1.0 million). Achieved when at least 90 teachers who meet the Government Teacher Qualification Requirements deployed to completed sites. Completed sites refer to three new senior secondary schools and 25 expanded junior secondary schools financed by the project [Baseline: 0] (US\$0.5m).</p>
Data source/ Agency	For 4.1: CSA-MoE employee payroll registry For 4.2: CSA-MoE employee payroll registry and NASSCORP pension listing For 4.3, 4.4 and 4.5: CSA-MoE employee payroll registry, MoE personnel listing and Annual School Census/ School Quality Assessment report
Verification Entity	For 4.1, 4.2, 4.3, 4.4 and 4.5: IVA
Procedure	4.1 - The Bureau of Fiscal Affairs & Human Resources Development at the MoE submits the CSA-approved employee registry and list of teachers who are 65 years of age or older and meet the mandatory retirement criteria to PDT who sends it to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.



	<p>4.2 - The Bureau of Fiscal Affairs & Human Resources Development at the MoE submits the CSA-approved employee registry and the CSA-approved list of teachers who received the handshake package and have been removed from the teachers' payroll registry for placement on NASSCORP pension list to PDT who sends it to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement. The handshake package is a one-time financial allotment staff are authorized to receive at retirement, the amount of which is determined by CSA policy and is related to years of service.</p> <p>4.3 - The Bureau of Fiscal Affairs & Human Resource Development at the MoE submits the latest CSA-approved employee payroll registry and MoE personnel listing to the PDT who sends it to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>4.4 - The Bureau of Fiscal Affairs & Human Resource Development at the MoE submits the latest CSA-approved employee payroll registry and latest MoE Personnel listing to the PDT who sends it to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>4.5- The Bureau of Fiscal Affairs & Human Resource Development at the MoE submits the latest CSA-approved employee payroll registry and latest MoE Personnel listing to the PDT who sends it to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
DLI 5	Increased access to textbooks at the senior secondary level
Description	<p>Year 0 5.1 - Achieved when a technical working group has been established with clearly defined ToR including roles and responsibilities. This group will guide and oversee the implementation of the provision of teaching and learning materials in senior secondary schools and will at a minimum consist of representatives from the Bureau of Basic and Secondary Education, WAEC-Liberia, Division of Procurement at the MoE and Center of Excellence for Curriculum Development and Textbook Research (US\$0.5 million). Year 1 5.2 - Achieved when the MoE's Proposed Guidelines for Textbook Origination, Provision and Management have been reviewed, revised and approved by the MoE. The revised Guidelines should include</p>



	<p>at a minimum each of the sections in the existing MoE Guidelines (US\$1.0 million). Year 3 5.3 - Achieved when the textbooks covering the content of Grades 10-12 curriculum in English, Math, Physics, Chemistry and Biology are identified, adapted and approved by the MoE [Baseline: 0] (US\$0.4 million for textbook(s) for each subject covering all three Grades 10, 11, and 12 (US\$2.0 million)). Year 4 5.4 Achieved when each of the five subjects textbooks approved in DLI 5.3 across Grades 10, 11 and 12 are procured and distributed to at least 90 percent of public and community senior secondary schools, reaching at least textbook to student ratio of 1:5 by subject. The textbooks for Grades 10, 11, and 12 for a given subject can be combined and printed as a single textbook or separately. [Baseline: 0 percent and 1:16 textbook to student ratio respectively] (US\$0.2 million for each subject textbook(s) for the three grades procured and distributed to at least 90 percent of public and community senior secondary schools reaching at least textbook to student ratio of 1:5 at the school (US\$1.0 million)). 5.5 - Achieved when (a) an e-book app and online textbook platform developed; and (b) all textbooks approved in DLI 5.3 made available as e-books through the app and the online textbook platform (US\$1.0 million).</p>
Data source/ Agency	<p>For 5.1: Project monitoring report For 5.2: Project monitoring report and revised Guidelines For 5.3: Project monitoring report and prototype copies of the newly approved textbooks For 5.4: Project monitoring report, Annual School Census / School Quality Assessment report For 5.5: Project monitoring report, website and app</p>
Verification Entity	<p>For 5.1, 5.2, 5.3, 5.4 and 5.5: IVA</p>
Procedure	<p>5.1 - The MoE submits an official letter that confirms the establishment of the technical working group with the attached TOR and the member composition to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>5.2 - The Center of Excellence for Curriculum Development and Textbook Research at the MoE submits the revised Proposed Guidelines for Textbook Origination, Provision and Management to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>5.3 - The Center of Excellence for Curriculum Development and Textbook Research at the MoE submits the prototype copies of the newly adapted and approved textbooks as described in the definition of DLI 5.3 to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>



	<p>5.4 - The Division of Procurement at the MoE provides the list of all public and community senior secondary schools that have received the hard-copies of the newly adapted and approved textbooks under the Project to PDT who submits to IVA. IVA will verify receipt of the hard-copies of the textbooks by each school through a survey and compare the total number of books received by subject against the enrollments by grade for Grades 10-12 at each school. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>5.5 - The Center of Excellence for Curriculum Development and Textbook Research at the MoE submits the link to the live website and the app where the textbooks developed under DLI 5.3 have been uploaded and are accessible by the public to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
DLI 6	Improved access to basic digital skills training for senior secondary students
Description	<p>Year 1 6.1 - Achieved when a national strategy for ICT application in senior secondary education (“ICT strategy”) including an ICT curriculum, competency standards for students, qualification requirements for teachers and implementation modality, developed and approved by the MoE (US\$1.0 million). Year 2 6.2 - Achieved when at least four mobile computer labs in Montserrado county and five school-based computer labs in targeted schools are operational (in use or ready for use by teachers and students). Schools receiving the school-based computer labs will include five public and community senior secondary schools that will be selected based on total student enrollment at the senior secondary level, availability of space for a computer lab on the school premises and must be located in an urban area (outside Montserrado county) [Baseline: 0] (US\$1.0 million). Year 4 6.3 - Achieved when an evaluation of mobile computer lab vs. school-based computer lab approach for providing digital skills is completed and the report is finalized and disseminated in a stakeholder vetting workshop. The evaluation will cover at least the four mobile computer labs and the five school-based computer labs in targeted schools described in DLI 6.2 and three additional school-based computer labs that will be operational in the three newly constructed senior secondary schools under the project (US\$0.5 million).</p>
Data source/ Agency	For 6.1, 6.2 and 6.3: Project monitoring report.
Verification Entity	For 6.1, 6.2 and 6.3: IVA
Procedure	6.1 - The Division of Science, Technology, Engineering and Mathematics (STEM) at the MoE submits the ICT strategy as described in the definition of DLI#6.1 to PDT who sends it to the IVA for verification. IVA submits the verification report to



both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.

6.2 - The Division of STEM at the MoE submits an implementation status report on the mobile labs and school-based computer labs to PDT who sends it to the IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.

6.3 - The Division of STEM at the MoE will submit the final evaluation and dissemination report to PDT who sends it to the IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.



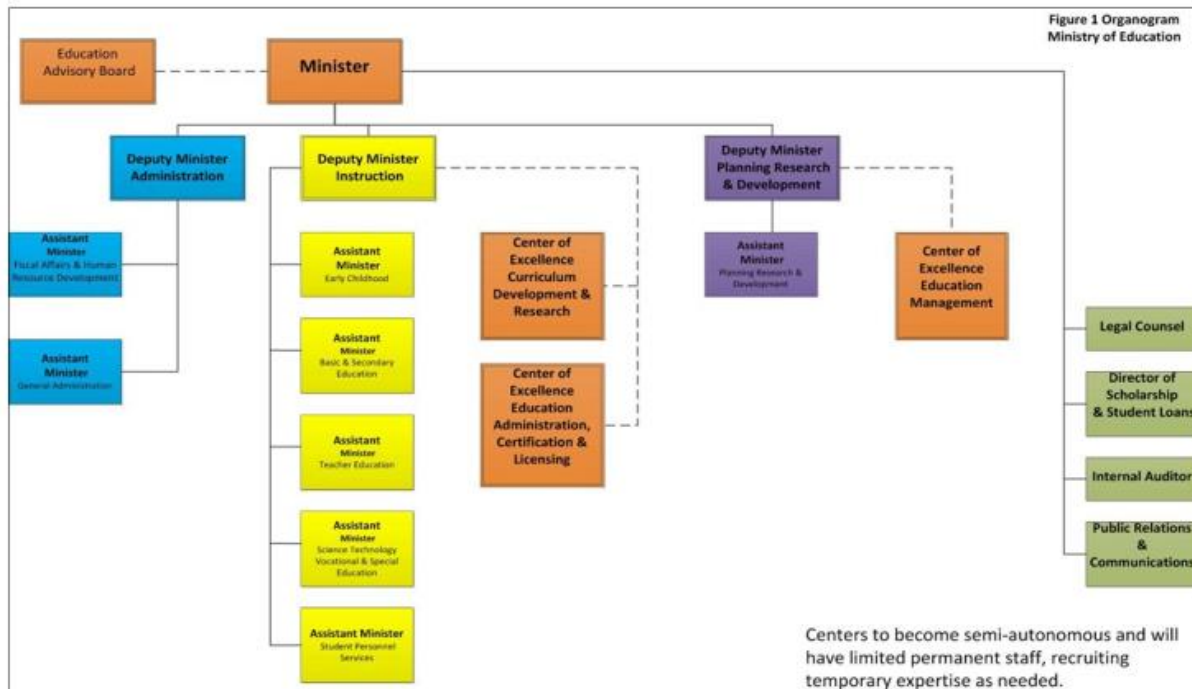
ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Liberia
Improving Results for Secondary Education (IRISE)

A. Project Institutional and Implementation Arrangements

1. The MoE will be the implementing agency with full responsibility for all aspects of the implementation of the IRISE Project. The Ministry is mandated by the Government to oversee the country's education sector, including the national curriculum, standards, and policy for all schools and educational programs, and is responsible for implementation of education sector strategies. It comprises personnel at central, county, and district levels, as well as staff (teachers and principals) working at the school level. The 2011 Education Reform Act defines the sector's management structure. The SMT located at headquarters in Monrovia is the executive body of the MoE. It is chaired by the Minister of Education and consists of the Deputy Ministers for Administration, Instruction, and, Planning, Research, and Development; and Assistant Ministers and Directors supporting each Deputy Minister. The SMT is responsible for overall policy direction and implementation decisions regarding the sector and, therefore, is the main decision-making body for IRISE implementation in collaboration with other governmental and non-governmental agencies as needed. At a sub-national level, County Education Officers who oversee DEOs are responsible for their respective county and district's schools and educational affairs, at their respective levels. Figure A.1.1 below outlines the management structure and the reporting relations among the main departments with the MoE.

Figure A.1.1. MoE Organogram



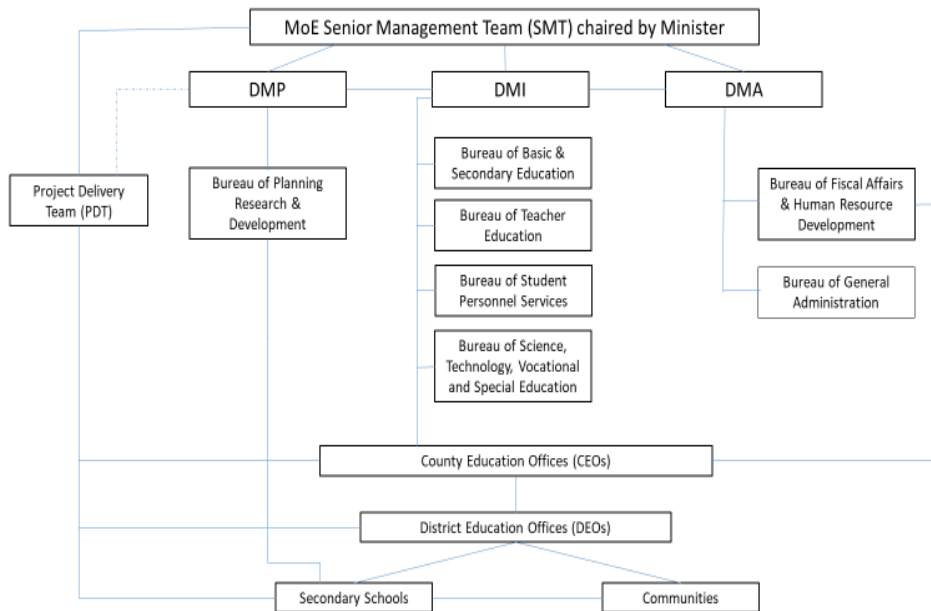
Source: Education Reform Act 2011



2. Day-to-day operations under the project will be delegated by the MoE to the PDT⁵⁰ which has a team dedicated exclusively to the project (a PCU). The PDT reports directly to the SMT of the Ministry and will liaise with entities inside and outside the Ministry to support implementation of project activities. The PDT’s team for IRISE (PCU) will be comprised of a Deputy Project Coordinator dedicated exclusively to coordinate IRISE implementation, technical focal points (each focusing on one project component except for Components 2 and 3 which may have more than one focal point – due to the size of the component/number of activities), plus additional consultancies to meet the financial and procurement needs of the project. The composition of the PCU inside the PDT, and relevant roles and responsibilities have been finalized with ToRs included in the draft PIM. To the extent feasible, personnel resources of the larger PDT⁵¹, including those working on FM, procurement, safeguards, M&E, communication and administration will be shared between the G2B and the proposed IRISE for project implementations to ensure synergy and efficiency. Additional staff for key function areas will be recruited based on need and on a short-term basis (not necessarily the length of the project cycle).

3. The overall project administration is summarized in Figure A.1.2 below. More detailed implementation arrangements of IRISE can also be found in the PIM.

Figure A.1.2 Outline of the Implementation Arrangements



Component 1. Improving access and learning environment at the senior secondary level (US\$14.4 million equivalent)

Sub-component 1.1: Improving access to senior secondary schools (US\$8.03 million equivalent)

4. Implementation of this sub-component will be led by the Bureau of Planning, Research and

⁵⁰ The PDT currently only manages the GPE-financed G2B Project. The MoE will hire a Deputy Project Coordinator responsible for the GPE implementation only. Although both IRISE and GPE implementation units reside inside the PDT and may share some common resources for efficiency, each will have its own coordinator and a core team for managing the implementation of its respective project.

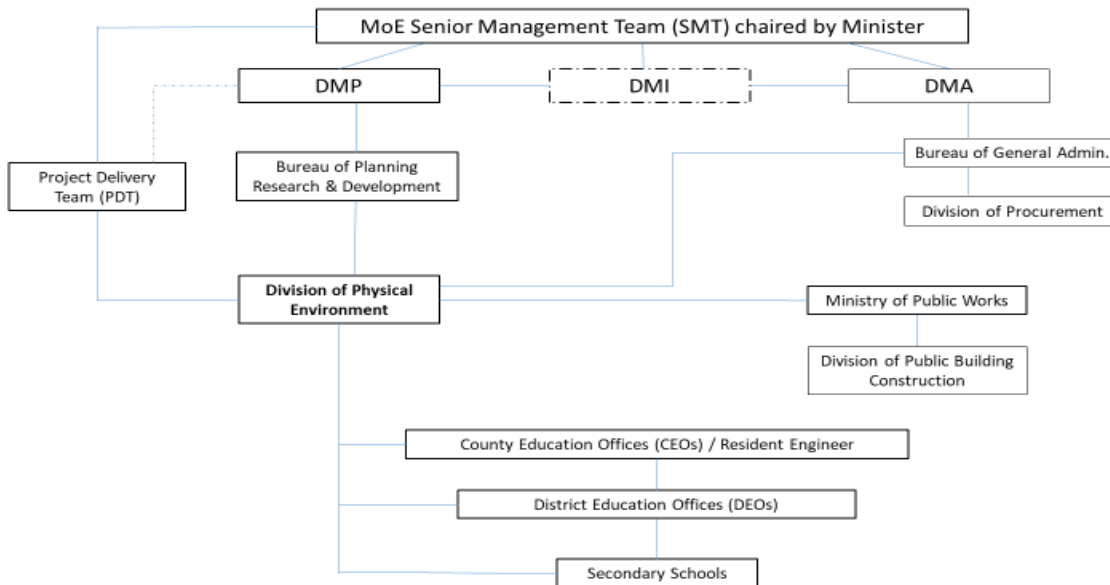
⁵¹ Ibid.



Development and Bureau of General Administration in consultation with the MPW. The Department of Planning, Research and Development and the Department of Administration will guide the Bureaus during implementation. In consultation with each other, both departments will supervise the construction, expansion, renovation, rehabilitation and maintenance of schools and ensure adherence to safeguards standards. TA will support the Division of Physical Environment (under the Bureau of Planning, Research and Development), by developing the standards, drawing and specifications and costing (as part of the NSIS).

5. The implementation arrangement for this component is summarized in the following figure.

Figure A.1.3 Implementation Arrangement Overview of Component 1



Sub-component 1.2: Supporting school expansion, rehabilitation and renovation using a community empowerment approach (CEA) (US\$6.37 million equivalent)

6. A training module will be developed to train SMCs, informed by existing modules used in other settings. This training will include focus on: grassroots management training (GMT), FM, procurement, supervision, monitoring, environmental and social safeguards, and GRM(s). The training will use a training-of-trainers approach (cascade model) with the CEOs and DEOs being trained by a private service provider who will then be supported in providing this training to the SMCs for the schools to which they are assigned. The grants will be transferred from the Ministry (PDT) to the SMCs’ local bank accounts. The DEOs, with supervision from the PDT FM specialist, will review the supporting documentation and undertake random spot checks.

7. Based on the agreed selection criteria, a selected number of districts’ SMCs will be responsible for their JSS’ expansion as well as SSS renovation and rehabilitation using a CEA. Similar to Sub-component 1.1, the Department of Planning, Research and Development in consultation with the Department of Administration at the MoE will lead this work. The construction, expansion, renovation and rehabilitation of schools including environmental safeguards will be supervised by site supervisors and monitored by the Division of Physical Environment (MoE) in collaboration with the MPW. The table below provides a proposed



implementation schedule for Component 1 activities to be supported under the proposed project.

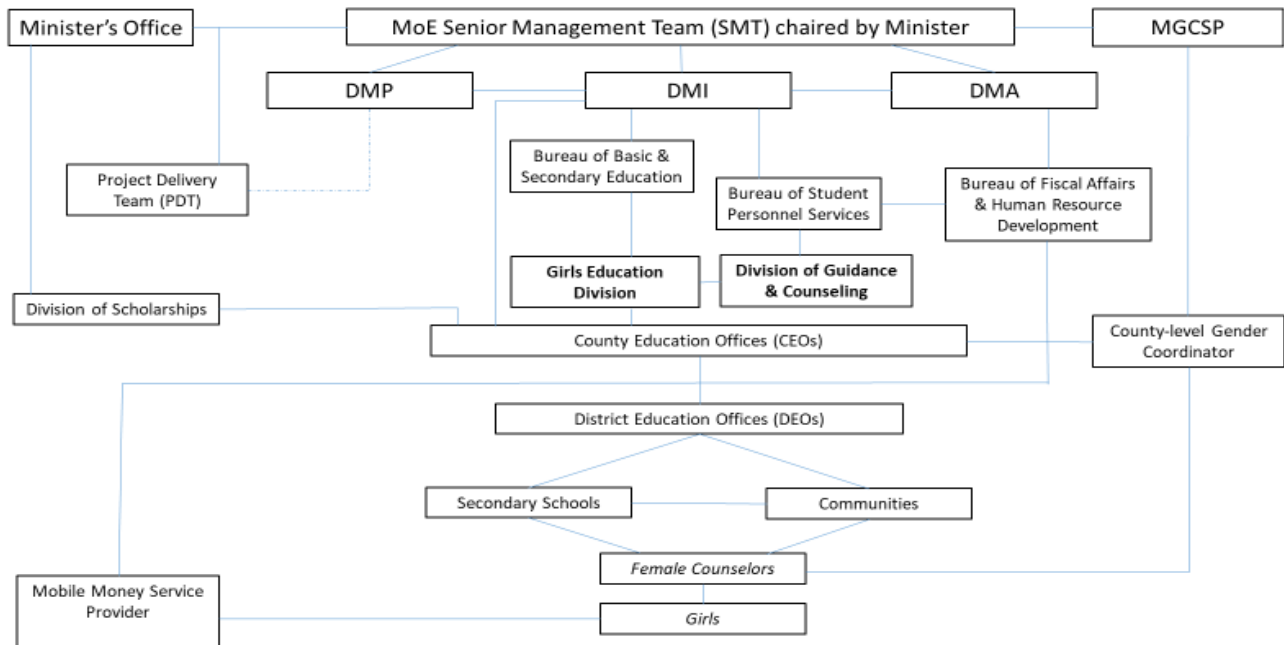
Table A.1.1 Proposed Implementation Schedule for Component 1 Activities

Schools Type	No. of schools	Timeline Start-End	Procurement process
New SSS	3	Y1-Y2	conventional
JSS expansion	23	Y1-Y2	conventional
JSS expansion	2	Y1-Y2	CEA
Large SSS	53	Y2-Y3	CEA
Medium-Small SSS	103	Y2-Y3	CEA
Construction strategy	1	Y0-Y1	TA
Environmental and Social Safeguards briefs		Y0-Y1	

Component 2: Increasing opportunities for girls to transition to and complete secondary education (US\$5.0 million equivalent)

8. The implementation of this component will be under the joint authority of the Minister’s Office and the Department of Instruction in coordination with the Department of Administration. Detailed arrangements for each of its three sub-components are described below and the overall implementation arrangement for this component is summarized in Figure A.1.4.

Figure A.1.4 Implementation Arrangement Overview of Component 2



Sub-component 2.1 Scholarships for girls in counties with the highest female dropout rates at the senior secondary education level

9. The Deputy Minister of Instruction’s (DMI) office is responsible for this sub-component with the



Bureau of Basic and Secondary Education designated to take the lead on implementation per the DMI's office's designation. The Bureau of Basic and Secondary Education will coordinate with the Bureau of Fiscal Affairs and Human Resources Development along with the Divisions of Girls' Education, Scholarships, and Guidance and Counseling. In the first year of the project the Ministry is responsible for developing and adopting the Girls' Education Scholarship Program Guidelines. These Guidelines will guide implementation and be updated in the second and third years of the scholarship program to reflect lessons learned during implementation. Establishing the implementation arrangements and processes will be supported through TA. As a measure of accountability and information-sharing across initiatives and ministries, the project will facilitate having one member of the Girls' Education Division at MoE join the Adolescent Girls Working Group, led by the MGCSP to keep the working group abreast of project developments.

10. TA will support the Bureau of Basic and Secondary Education in leading on the design of the scholarship program. In the first year of the scholarship program, school principals, DEOs and CEOs will be responsible for the roll out of the scholarship program at the school level after the dissemination of and familiarization with the Girls' Education Scholarship Program Guidelines with monitoring support coordinated by the Bureau of Basic and Secondary Education. The scholarship funds will be disbursed after the MoE has confirmed completion of the following: (a) development and submission of the Girls' Education Scholarship Program Guidelines to the World Bank; (b) verification that targeted SSS have met the eligibility criteria; and (c) verification that targeted female students have met the eligibility criteria. The scholarship recipients will receive a randomly generated PIN to ensure a secure and consistent transfer of funds to the intended recipient. In addition to the Ministry carrying out monitoring and supervision activities, the IVA hired under the project will be responsible for conducting spot checks and ensuring that the intended beneficiaries are receiving the scholarship payments as well as holding focus group discussions with the beneficiaries during project implementation to learn about their experiences and whether the scholarships are reducing the constraints to accessing and remaining in school and meeting the intended objective.

Sub-component 2.2 Supporting safer learning environments in senior secondary schools for girls

11. TA will support the Bureau of Basic and Secondary Education to draft the ToR for the female guidance counselors and develop training modules and guiding documents for implementation. The Bureau of Fiscal Affairs and Human Resources Development under the guidance of the Department of Administration will be responsible to hire and deploy female guidance counselors to each SSS in the country in collaboration with the Bureau of Basic and Secondary Education. The female guidance counselors will be responsible for fulfilling the job description and reporting sexual harassment, rape and other GBV in school to the school principal, the DEO, the CEO and the Country-level Gender Coordinator for appropriate handling and solutions. Mechanisms for reporting and handling of incidents will be captured in the Girls' Education Scholarship Program Guidelines to reinforce the existing Code of Conduct adopted by the MoE. Monitoring and support from the Division of Guidance and Counseling will be provided.

Sub-component 2.3 Promoting community engagement to empower girls, schools and communities

12. Under the leadership of the DMI's office, this sub-component will be led by the Bureau of Student Personnel Services in collaboration with the Bureau of Basic and Secondary Education which includes the Girls' Education Division, as well as schools and school communities. TA will be provided by the project to help the MoE undertake an analysis to better understand the major constraints faced by girls and other vulnerable groups with regards to secondary education. Following that, a framework and operational plan



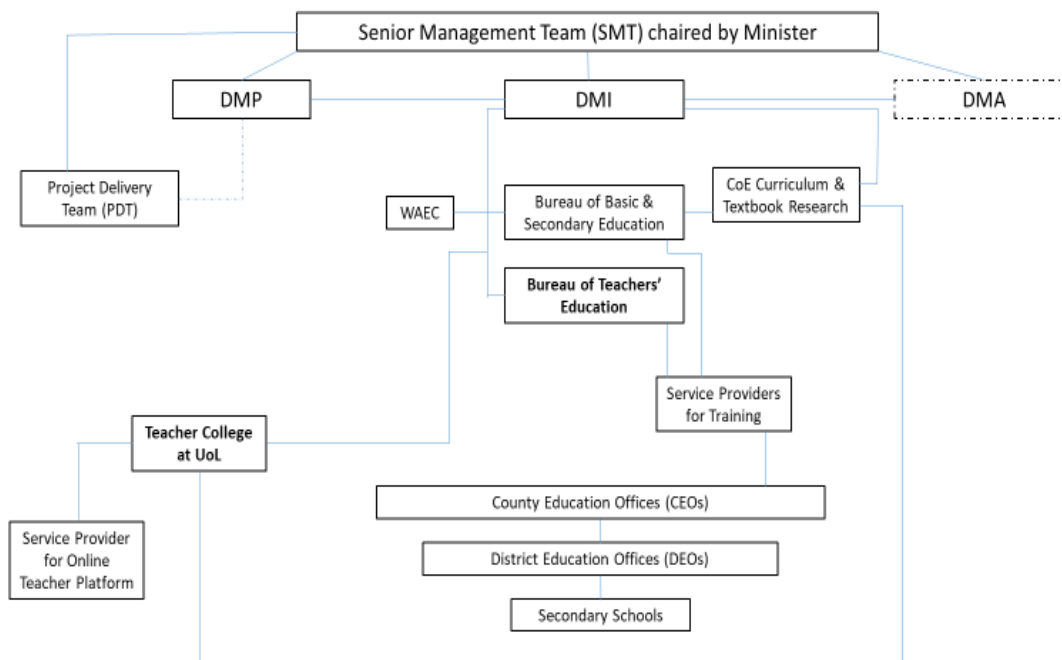
for activities to be undertaken, and their linkages to interventions supported by Sub-components 2.1 and 2.2 will be developed. It is envisioned that female guidance counselors would also serve as focal points for the community engagement campaigns, helping implement key reforms within the schools and liaising with communities on girls’ issues.

Component 3: Improving quality and relevance of senior secondary education (US\$19.0 million equivalent)

13. The implementation of this component will be under the joint authority of the Department of Instruction, the Department of Administration at the MoE in collaboration with the CSA and the National NASSCORP. Detailed arrangements for each of its three sub-components are described below.

14. **Sub-component 3.1 Improving the quality of teaching in senior secondary education** This sub-component aims to support the development and management of the teaching workforce at senior secondary level and strengthening the systems in related areas for future development. Its implementation is mainly under the joint authority of three MoE Bureaus - the Bureau of Teachers’ Education, the Bureau of Basic and Secondary Education (for activities under 3.1 A and 3.1 B), and the Bureau of Fiscal Affairs and Human Resources Development (for activities under 3.1 C) in collaboration with CSA and NASSCORP. The overall implementation arrangement for this sub-component is summarized in Figure A.1.5.

Figure A.1.5 Implementation Arrangement Overview of Sub-component 3.1 A + B





15. **Sub-component 3.1(A) Modernizing pre-service teacher training.** UL-TC has been selected to be the main implementer of this sub-component. In addition, the College of Education at William V.S. Tubman University will benefit from interventions related to the integration of ICT in teacher training as well as faculty training, while the RTTIs will benefit from faculty training only. These activities will be implemented under the leadership of the UL-TC in collaboration with other teacher training institutions and with support from TA. This sub-component will be implemented mainly by UL-TC with the support of service provider(s) and the Bureau of Physical Environment at the MoE.

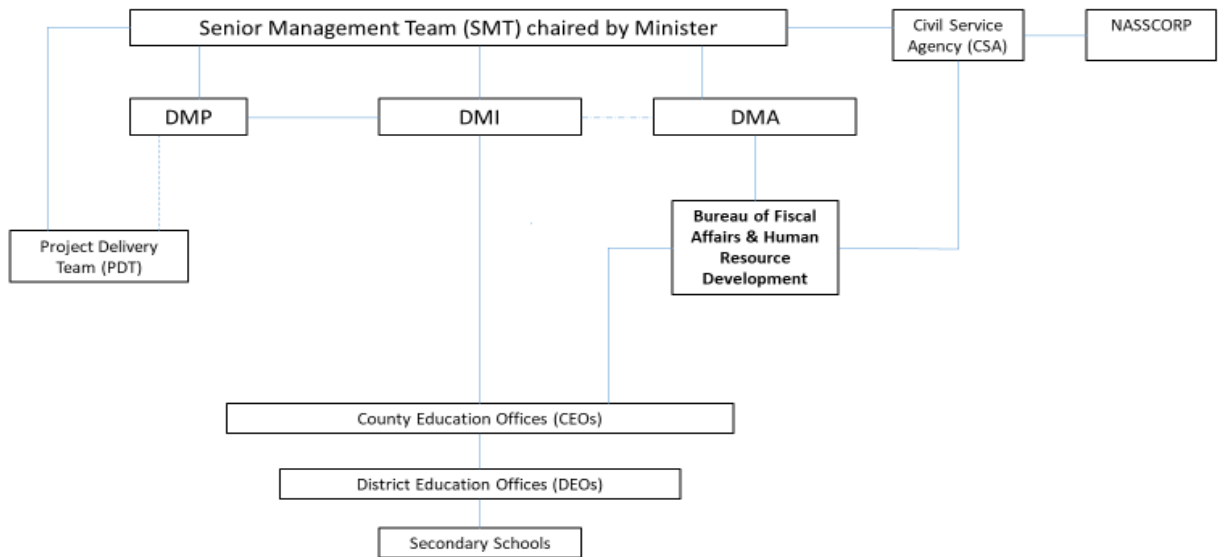
16. **Sub-component 3.1(B): Establishing an in-service teacher continuous professional development system.** The implementation of this sub-component will be under joint authority of the Bureau of Teachers' Education and the Bureau of Basic and Secondary Education under the guidance of the Department of Instruction at the MoE in collaboration with the WAEC – Liberia.

17. The implementation will be arranged in such detail as that: a) WAEC will analyze WASSCE data and identify areas where students failed most in five subjects – Math, Physics, Chemistry, Biology and English; and b) Bureau of Teachers' Education and WAEC will collaborate and develop training modules for these five subjects based on the WAEC diagnostic reports. The project will finance the collaboration between MoE and WAEC as well as TA through a service provider to develop a feedback-based training system, in particular, the development and delivery of the training materials and program. The project will also finance a service provider to deliver the training to teachers and VPIs. Under this sub-component, the project will provide TA to help the MoE develop a teacher qualification upgrading strategy.

18. **Sub-component 3.1(C): Improving the management and quality of the teaching workforce.** Implementation of this activity will be under the authority of the Departments of Administration and Instruction with inputs from the CSA. The Department of Administration will identify staff who qualify and submit deletion Personnel Action Notices (PANs) to the CSA for their removal from the payroll. The identified employees will go through a one-day mandatory counseling workshop hosted by the Department of Administration in collaboration with the CSA and employees will be asked to complete the necessary requirements to be eligible for placement on the NASSCORP pension listing. Once approved, these staff will be removed from the employee payroll registry (CSA) and will be handed over to NASSCORP to be included in the national social security system to start receiving their retirement pensions. The MoE will then submit replacement PANs to the CSA for the hiring of qualified teachers that have met the government's teacher qualification requirement and their placement on the civil servant payroll. The MoE's personnel listing published annually will reflect the newly qualified teachers' places of assignment.



Figure A.1.6 Implementation Arrangement Overview of Sub-component 3.1 C



19. In subsequent years of project implementation, it is expected that the Ministry would continue to retire staff who reach the mandatory retirement age, ensuring a clean registry that does not include overdue retirees and accurately displays the names, locations, and brief profiles of teachers on payroll.

Sub-component 3.2: Providing teaching and learning materials for senior secondary schools

20. The Department of Instruction will have the overall responsibility for implementing this sub-component. A TWG led by the Center of Excellence for Curriculum Development and Textbook Research, comprising representatives from the Bureau of Basic and Secondary Education, WAEC-Liberia, Division of Procurement at the MoE and the PDT will be established to work closely with the TA provided under the sub-component to ensure successful implementation of all activities.

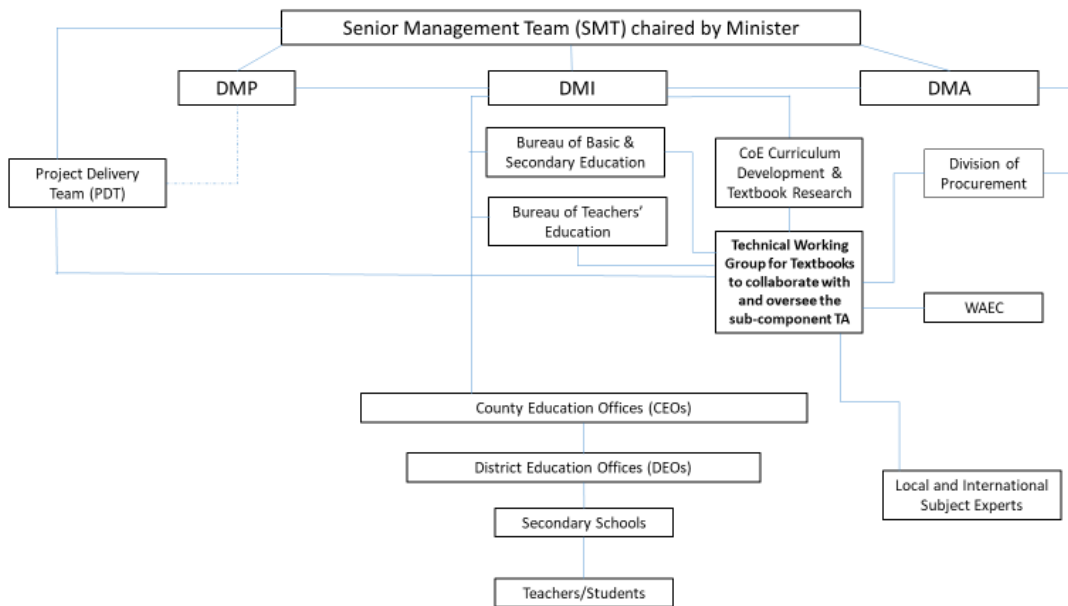
21. The project will provide TA to review and revise existing MoE textbook guidelines namely *Proposed Guidelines for Textbook Origination, Provision and Management*. Once the guidelines are revised and adopted by the MoE, they will be used to identify and adapt existing textbooks and learning materials in five subjects; English, Math, Physics, Chemistry and Biology, to the national curriculum at the senior secondary level, revised by the MoE in 2018. TA (supplied by a consultant service provider with previous experience in textbook development and management), will be provided to the Center of Excellence for Curriculum Development and Textbook Research at the MoE. The TA will support alignment of the identified textbooks and learning materials with the national curriculum, provide quality assurance, pilot the textbooks with select learners and teachers, collect feedback, supervise the revision and finalization of the textbooks. Through this process, the MoE will ensure that local content that is appropriate and relevant for Liberia’s context is included in the textbooks.

22. The procurement of the books will be based on the enrollment of grades 10-12 students in the latest school census’ data. The revised guidelines for textbooks will be used to select the lowest cost private



publisher to print and distribute the newly adapted textbooks, to all public and community SSS by the end of the project. DEOs will be responsible to confirm the delivery and usage of these textbooks in their schools. This will be done during the semester SQA reporting under the G2B Project. The project will also provide TA through service providers to develop textbooks and a free textbook application and an online textbook and teaching/ learning materials platform, making textbooks and teaching/learning materials public goods, available to all teachers and students in SSS in the country. The private service provider responsible for digitization of textbooks, will also be responsible for training the Center of Excellence for Curriculum Development and Textbook Research as well as the Division of IT at the MoE on maintenance and upkeep of the platform and the app. The overview of implementation arrangements for this sub-component is summarized in Figure A.1.7 below.

Figure A.1.7 Implementation Arrangement Overview of Sub-component 3.2

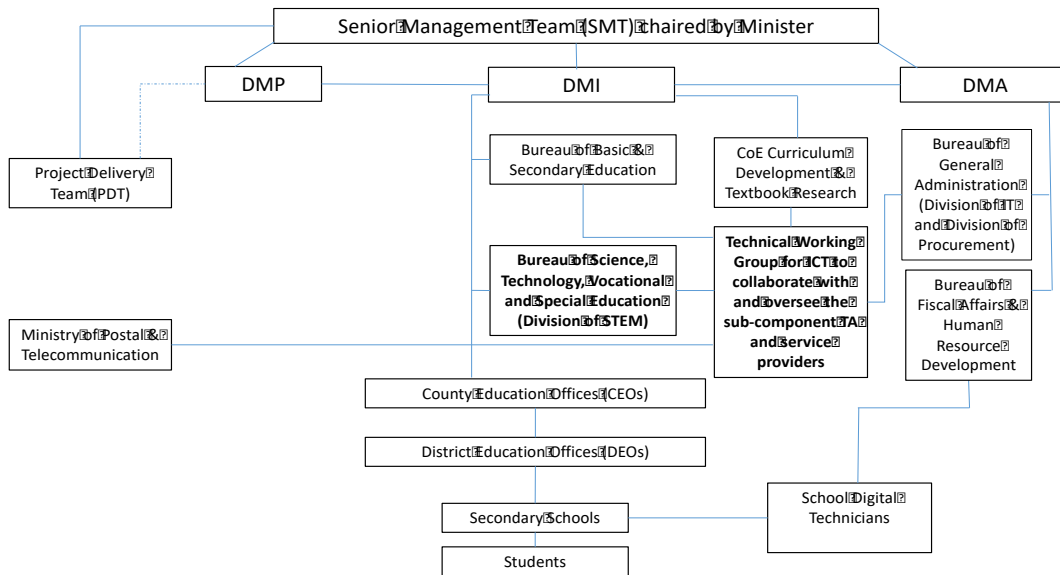


Sub-component 3.3: Providing opportunities for acquisition of digital skills and competencies

23. The Department of Instruction will have the overall responsibility for implementing this sub-component. A TWG, led by the Division of STEM and comprising representatives from the Bureau of Basic and Secondary Education, Center of Excellence for Curriculum Development and Textbook Research, Division of IT as well as the Ministry of Postal and Telecommunications (responsible for ICT development in the country) will be established to work closely with the TA and the private service provider provided under the sub-component to ensure successful implementation of all activities. The detailed arrangements are summarized in Figure A.1.8 below.



Figure A.1.8 Implementation Arrangement Overview of Sub-component 3.3



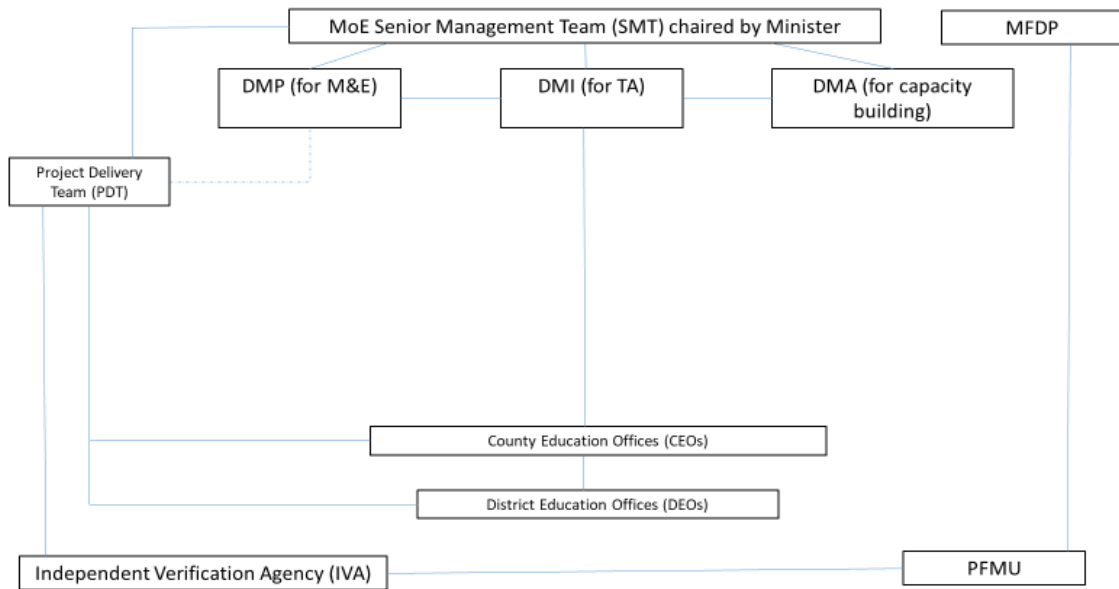
24. This sub-component has three activities and their implementation arrangements are as follows:
- a. **Development of a national ICT strategy for senior secondary education:** UA TWG, led by representatives from the Division of STEM, under the Bureau of Science, Technology, Vocational and Special Education, and comprising representatives from the Center of Excellence for Curriculum Development and Textbook Research, Bureau of Basic and Secondary Education, and the Bureau of General Administration will be established under this sub-component and will work in close collaboration with the TA provider, and guide and oversee the TA. Once the strategy is developed, it will be reviewed by the TWG and be adopted by the MoE.
 - b. **School-based computer labs:** Procurement of equipment for the computer labs will be led by the Division of Procurement and Division of IT, under the Bureau of General Administration and recruitment of qualified technicians and IT teachers trained in the curriculum developed under the ICT strategy, will be the responsibility of the Bureau of Fiscal Affairs and Human Resources Department. At the school level, implementation of the activity will be led by the Vice Principals of Instruction (VPIs), and their respective DEOs.
 - c. **Mobile labs:** The labs will be managed by a private service provider, under the supervision of the TWG. Each mobile lab will spend a half day at one school to provide one-hour lesson/practice session for each grade students at grades 10-12, then moving to the next school, i.e., one mobile lab serves two schools on a given school day. The service provider will be responsible for maintaining and securing the mobile lab, procuring the necessary equipment as well as recruiting and training a technician from the local community for each lab . After the project closes, these mobile computer labs will be maintained and operated by the CEOs with support from local NGOs under the supervision of the Department of Administration.



Component 4: Capacity building, TA, Project Ccooordination, and M&E (US\$8.6 million equivalent)

25. The SMT of MoE will be responsible for overseeing project implementation. The Department of Instruction will lead the implementation of TA activities under Component 4 in collaboration with the Department of Administration which will lead the implementation of capacity building activities of the Component. The Department of Planning, Research and Development will be responsible for the M&E for the project. The PDT will collaborate with the IVA which will be hired by the MoE in undertaking the DLI verification activities. The implementation arrangements overview of this component is summarized in Figure A.1.9 below.

Figure A.1.9 Implementation Arrangements Overview of Component 4



B. Implementation Arrangements for FM, Disbursement and Procurement

Financial Management

26. Given that the PFMU under the MFDP is currently responsible for the FM for World Bank-financed projects, the proposed project will build on existing FM arrangements which is assessed as adequate for ensuring that: (1) the funds are used only for the intended purposes in an efficient and economical way; (2) the preparation of accurate, reliable and timely periodic financial reports; (3) the safeguarding of the entity’s assets; and (4) adequate fiduciary assurances are provided through an independent audit of the project. The control risk is assess as ‘Moderate’ and the overall residual FM risk for the project is assessed ‘High’ but reduced to ‘Substantial’ due to the articulated risk mitigating measures including the provision of the FM services by the project accountant in the PDT who will also be responsible for the other World Bank-funded projects, an IVA and external auditing by an independent qualified auditor.

27. The FM and accounting functions of the project will be undertaken using the current FM arrangements for the G2B Project in the PFMU. The current FM arrangements are to use the PFMU which is responsible for managing all of the finances of donor-funded projects for the Government including those for the IRISE Project. The PFMU will be responsible for preparation and submission of the IFRs every quarter



in compliance with the FA, submitting audited annual reports and for all the FM issues of the proposed project.

28. The project will be implemented under five components and six DLIs focused. Components 2 and 3 use an RBF modality whereby disbursement up to a capped amount is conditioned on (a) the achievement of specified results as measured by DLIs (*see Annex 2, DLI Matrix*) and (b) expenditures within the agreed-upon EEPs.

29. Where applicable, DLIs have been noted as scalable, and disbursement will be conditioned on the extent of progress made towards outcomes. Component 4 will offer TA, including program oversight, required to help achieve the targets of Components 2 and 3. Lastly, Component 5 (CERC) will serve as a place holder contingent and allow for an expedited response in the event of an unforeseen emergency in the education sector during the project implementation cycle. The Government has mapped out an operational plan to reach the designated targets and eventually Project results.

30. Detailed information following the FM assessment is presented below:

31. **Budgeting.** The PDT will submit an annual work plan and budget (AWP&B) to the World Bank for no-objection at least two months before the beginning of each fiscal year of the government. The PFMU will provide input to the AWP&B, mainly on the issues related to budgeting and expenditures. Expenditures under each disbursement categories/components will be monitored by the PFMU who will submit IFRs with any significant variances explained. The team will take prompt actions to correct any identified significant material variance.

32. **Internal controls and audit.** The internal controls are governed by the PFMU Financial Management Manual and the Public Financial Management Act, both of which will apply to the project. The internal auditors undertake internal audit activities on risks' basis. The World Bank FM specialist will provide capacity-building support to the internal auditors on report writing, as needed, to help improve the quality of internal audit. The PFMU will maintain a fixed assets log for assets to be acquired or created using project funds. The internal auditor will submit an internal audit report twice a year in September and February of each year.

33. **Accounting and maintenance of accounting records.** The PFMU will use the Sun accounting system for project accounting and financial reporting, or another program agreed upon by the World Bank. The PFMU will prepare annual financial statements at the end of each fiscal year in accordance with International Public-Sector Accounting Standards. The financial statements will comprise, at a minimum: (a) sources and uses of funds (summary of expenditures shown under the main program headings and by main categories of expenditures for the period); and (b) notes to the financial statements, including background information, the accounting policies, detailed analysis and relevant explanation of the main accounts/major balances, and so on. In addition, the PDT shall provide, as an annex to the financial statements, an inventory of fixed assets acquired according to asset classes, dates of purchase, location, and cost. However, given the special nature of financial statements, advances granted by the project would be secured with a bank guarantee. The advance will not be recognized as expenditures until the goods and/or services have been delivered by the contractors.

34. **Periodic financial reporting.** The PFMU will be responsible for preparing the quarterly unaudited IFRs and will submit the IFRs to the World Bank 45 days after the end of each quarter. The project coordinator will review and sign off on the IFR before the PFMU submitting the IFR to the World Bank. The existing IFR



arrangement, including the IFR format currently in use at the PFMU, will apply for this project.

35. **External audit arrangements.** Annual audits will be conducted at the end of each GoL fiscal year for the project. General Auditing Commission (GAC) will carry out the audit. The ToRs of the auditors will be cleared by the World Bank. The project financial statements including movements in the DAs will be audited in accordance with International Standards of Supreme Audit Institutions (ISSAI) Guidelines and a single opinion will be issued to cover financial statements in accordance with the World Bank's audit policy. The auditors' report and opinion with respect to the financial statements, including the Management Letter, will be furnished to the World Bank within six months after the end of each fiscal year.

36. **Staffing:** The PFMU is headed by a director and deputy director who are both CPAs, the internal audit unit under PFMU is headed by a Chartered Accountant. The projects will need to add one project accountant/ FM Specialist who is part (ACCA/CPA/CA) at PDT level to support the day-to-day financial transactions of the Project. The cost of running the PFMU (salaries and operational costs) will be shared among the projects that are World Bank-funded through a standing fee of 1 percent of Project amount.

37. **Conclusion.** The overall FM risk is assessed as 'High' but reduced to a residual risk rating of 'Substantial' in view of the articulated risk-mitigation measures. Risk mitigation measures include the use of the PFMU, which has experience with World Bank's FM procedures, and the strengthening of the on-the-job training to be provided for the internal auditors at the PFMU and the finance officers in the PDT. The PFMU will maintain financial records and will submit quarterly unaudited IFRs to IDA 45 days after the end of each quarter. In addition, the management and the PFMU will submit audited accounts, annually, six months after the end of each fiscal year, in accordance with the legal requirements set forth in the FA.

38. **Supervision plan.** FM supervision will be conducted, and the frequency of the supervision will be consistent with the project risk rating with the initial two years targeting supervision after every six months. The FM supervision objectives will include review of the expenditures for eligibility, availability of supporting documentation, and adequacy of documentation. The risk rating will be adjusted to reflect accordingly the findings of the supervision, after each supervision mission.

39. **Funds flow arrangements.** The project will also use the report-based disbursement method which will also be used for accessing funds into the DA for project implementation. Grant proceeds will flow from the World Bank to a Designated US Dollar account to be opened at commercial bank in Liberia and managed by the PFMU. Payments will be made for eligible project expenses from the Designated US Dollar account. The report-based disbursement method (IFRs) will be used as a basis for the withdrawal of all grant proceeds. An initial advance will be provided for the implementing entity, based on a forecast of eligible expenditures against non-DLI components, linked to the appropriate disbursement category. These forecasts will be premised on the annual work-plans that will be provided to the World Bank and cleared by the World Bank task team leader. Replenishments, through fresh withdrawal applications to the World Bank into the DAs will be made subsequently, at quarterly intervals, but such withdrawals will equally be based on the net cash requirements that are linked to approved work-plans and percentage contribution to the pooled fund. Supporting documentation will be retained by the implementing agencies for review by the IDA missions and external auditors. For a period of four months after the closing date, disbursement for expenses incurred prior to the closing date will be allowed.

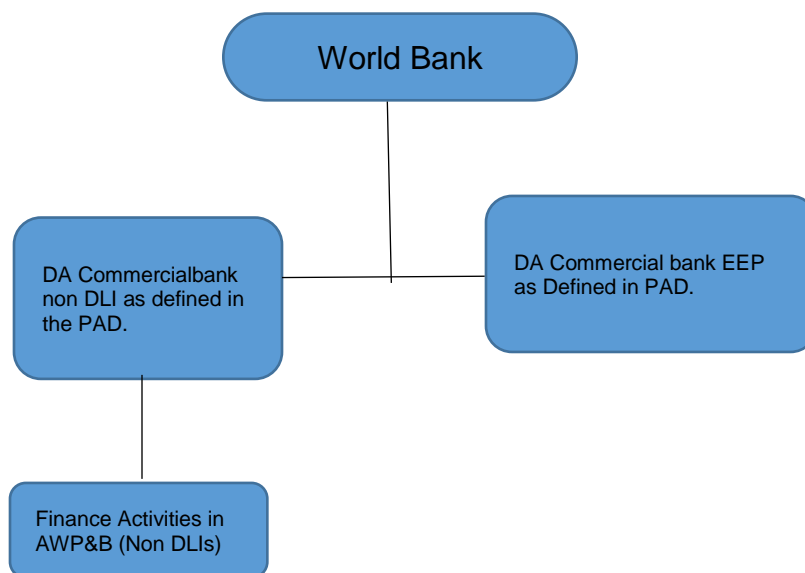
40. The disbursements for DLIs will be made against achievement of DLIs targets. A certain amount of grant proceeds has been allocated to each DLI, referred to as the DLI allocation, which is the amount that the



MoE can claim as disbursements against EEPs if that DLI has been achieved and verified. These EEPs are a part of recurrent expenses of the eligible activities, clearly identifiable in the MoE financial statements. The limit for each DLI has been agreed.

41. This mode of disbursement will mainly involve reimbursement of certified EEPs supported with achieved DLIs' and other relevant documentation. However, this may not be the case for Liberia because of its tight budget constraints. Therefore, an advance of the value of the annual DLI can be made to enable the Government to undertake and meet the required annual DLI target. The disbursements will be made against identified EEPs, and the triggers will be the actual values of predefined DLIs. Decisions over compliance and disbursement against indicators will be made based on reports prepared by the ministrie and submitted to the independent verification agent with necessary documentation assuring that they have been satisfied. Disbursements against EEPs and DLIs will flow to a special account to be opened. The World Bank will issue a Disbursement and Financial Information Letter (DFIL) which will set out and summarize all the disbursement arrangements and procedures under the project. The letter will include the World Bank Disbursement Guidelines.

Figure A.1.10 Flow of Funds Diagram



42. **FM Covenants.** The project will have the following FM covenants:

- a. Quarterly progress reports on financial progress will be prepared and sent to the World Bank no later than 45 days from the end of the quarter.
- b. Annual audit reports will be prepared and submitted to the World Bank within six months of the end of the year audited.
- c. AWP&B shall be prepared and submitted to the bank by end of each FY.

43. **DLI verification protocol.** An IVA will be recruited to review the achievements and evidence (for example, by conducting school visits) provided by the government information systems. Potential IVAs could include autonomous universities, reputable NGOs, DPs, the General Audit Commission or private consulting firms. As is the case for the G2B Project, this project's independent verification report (IVR) will be submitted



annually and include evidence of achievement presented to the World Bank for review before disbursement. The IVA will also be tasked with the responsibility to report on structural challenges that are preventing the DLIs from being met. For further details on the DLI verification protocol, including reporting sources and mechanisms see Annex 2, DLI Matrix.

Disbursements

44. The disbursement arrangements for the project will follow the GPE-financed G2B Project which is under the portfolio of the World Bank. The arrangements will consider, among other things, an assessment of the Recipient's FM and procurement arrangements, cash flow needs of the project, and IDA disbursement experience with the Recipient. Those arrangements will be outlined in the FA and additional information will be provided in the DFIL, which will form part of the FA.

45. Disbursements of funds to the project will follow any of the following methods: (a) reimbursement (including retroactive financing), where IDA may reimburse the Recipient for expenditures eligible for financing, pursuant to the FA (eligible expenditures), that the Recipient has prefinanced from its own resources; (b) advances, where IDA will advance funds from the Financing Account into a DA of the Recipient to finance eligible expenditures as they are incurred and for which supporting documents will be provided; (c) direct payment, where IDA will make payments, at the Recipient's request, directly to a third party (for example, supplier, contractor, or consultant) for eligible expenditures; and (d) special commitment, where IDA will pay amounts to a third party for eligible expenditures under special commitments entered into, in writing, at the Recipient's request and on terms and conditions agreed between the Recipient and the World Bank.

**Table A.1.2 Eligible Expenditure Table**

Category	Amount of the Grant Allocated (expressed in SDR)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, works, consulting services, non-consulting services, Training and Operating Costs under Parts 1 and 4 of the Project (excluding Part 1 (c) of the Project)	11,600,000	100%
(2) Eligible Expenditure Programs under Parts 2 and 3 of the Project	17,400,000	100% of each DLI Amount set out in the Annex to Schedule 2 (or such lesser percentage as represents the total Eligible Expenditures paid by the Recipient under the Eligible Expenditure Program as of the date of withdrawal).
(3) School Grants under Part 1(c) (i) of the Project	250,000	100%
(4) School Grant under Part 1(c)(ii) of the Project	4,350,000	100%
(5) Emergency Expenditures under Part 5 of the Project	0	n/a
(6) Refund of Preparation Advance	400,000	Amount payable pursuant to Section 2.07 (a) of the General Conditions
TOTAL AMOUNT	34,000,000	

46. Before funds from the Financing Account are withdrawn or committed, the authorized representative of the Recipient (as designated in the FA) will furnish to the World Bank, electronically through the Client Connection website (<http://clientconnection.worldbank.org>), or through an authorized signatory Designation Letter, the name(s) of the official(s) authorized (a) to sign and submit applications for withdrawal and applications for a Special Commitment (collectively, applications); and (b) to receive secure identification credentials from the World Bank. The Government will notify the World Bank of any changes in signature authority, either electronically in Client Connection or through an updated authorized signatory Designation Letter. Applications will be provided to the World Bank in such form as is required to access funds from the Financing Account and will include such information as the World Bank may reasonably request. Applications and necessary supporting documents will be submitted to the World Bank electronically, in a manner and on terms and conditions specified by the World Bank, through the Client Connection website at <http://clientconnection.worldbank.org>. The World Bank will, at its discretion, temporarily or permanently, disallow the electronic submission of applications by the Recipient. The World Bank will permit the Government to complete and submit applications manually in paper form. Paper application forms can be found on the Client Connection website at <http://clientconnection.worldbank.org> or may be obtained from



the World Bank upon request. The World Bank establishes a minimum value for applications for Reimbursement, Direct Payment, and Special Commitment. The World Bank reserves the right to not accept applications that are below such minimum value.

47. The selection of the DLIs for the project has taken into consideration the practical aspects of measuring, monitoring, and verifying achievement of the results. The chosen DLIs are clearly defined and measurable, with clear protocols for monitoring. The DLIs are structured taking into account the country and sector contexts and Recipient capacity, and whether it is feasible to achieve the results selected as DLIs during the implementation period. Ultimately, these are driven by the desired outputs and outcomes of the key programs being run in the two sectors. The absolute number of DLI anchored intermediate outcomes aim to ensure that they are the key milestones that are considered critical to (a) keep the key sectoral programs, including efficiency and effectiveness, on track; and (b) ensure agreed upon improvements and mitigation measures are carried out. These have been selected to ensure they are practical and manageable.

48. The MoE undertakes a school census that is the main data collection tool used to measure progress toward their programs task team will need to ensure that such results: (a) are within the scope of each sectors program; and (b) the systems used to achieve such results are assessed and accepted by the World Bank.

49. The selected DLIs relate to existing programs in the sector. Since funds may not be adequately appropriated within their respective national budgets; therefore, advances under the project's FA will become necessary. As such, advances may be helpful, or even necessary, for the Government to finance the activities needed to achieve the results for all the selected DLIs. This is also considering Liberia's fiscal situation. These advances can only be made following the effectiveness of the FA and such arrangements will be included into the project's DFIL.

50. The disbursement of DLI-related financing will be made at the request of the Government upon achievement of DLIs as specified in the main text. The World Bank's task team will routinely monitor the Government's progress toward DLI achievement, including the progress reports and the earlier described verification protocol. When a DLI is achieved, in full or partially, the PDT will inform the task team and provide evidence as per the verification protocol as justification that the DLI has been achieved. The task team will review the documentation submitted and request any additional information considered necessary to verify achievement of the DLI.

51. Disbursement requests will be submitted to the World Bank using the World Bank's standard disbursement form, signed by an authorized signatory of the Government. The requisite withdrawal applications will be submitted electronically using the e-disbursement functionality in Client Connection. Once disbursed to the Ministry, these funds will be ring fenced to ensure that they do meet expenditure eligibility criteria for which they are to be used in the Ministry.

52. The aggregate disbursements under the operation will not exceed the total expenditures over the implementation period. The DLI verification protocol, as well as the verification procedures details, are fully detailed in the project appraisal document (PAD) (see Annex 2) and details will also be included in the PIM. The verification protocol includes: (a) definitions of each DLI and how it will be measured; (b) objective, detailed definition of what is required to consider that the DLI has been achieved; (c) Indication of whether disbursements associated with the DLI will be scalable; (d) definition of data sources that will be used to measure that the DLI has been achieved, including reporting frequency; (e) baseline data; and (f) agreement



that an IVA will be responsible for providing relevant data for the achievement of the DLI.

53. Rollovers on the DLIs in the project are permitted.

Table A.1.3. Project Evaluation and Disbursements

Project Evaluation and Disbursement	Year 0 (2019)	Year 1 (2020)	Year 2 (2021)	Year 3 (2022)	Year 4 (2023)
Period being evaluated	June-September 2019	October 2019-June 2020	July 2020-June 2021	July 2021-June 2022	July 2022-June 2023
Evaluation Period	July-September 2019	July-September 2020	July-September 2021	July-September 2022	July-September 2022
Disbursement	October 2019	October 2020	October 2021	October 2022	October 2023

Table A.1.4: Categories of Eligible Expenditures

Category	Amount of the Grant Allocated (expressed in US\$, million)	Percentage of Expenditures to be Financed (inclusive of Taxes)
DLI 1	5.0	100% up to the DLI amount
DLI 2	2.0	100% up to the DLI amount
DLI 3	5.0	100% up to the DLI amount
DLI 4	4.0	100% up to the DLI amount
DLI 5	5.5	100% up to the DLI amount
DLI 6	2.5	100% up to the DLI amount
Total amount	24.0	

54. **Disbursement of DLIs.** Disbursements are conditional on the achievement of agreed performance and progress targets as presented in the DLI Matrix (see Annex 2). As targets are achieved, the World Bank will disburse funds to the Government against the EEP budget lines listed in Table 1 (see main text).

55. Achievements from each fiscal year (July 1–June 30) will be verified within three months after the end of the fiscal year. Disbursements may be made in proportion to the level of achievement (scalable), dependent on proportional disbursement protocols listed in the DLI descriptions or withheld till the target has been met. No additional disbursement will be made for exceeding the annual targets. Where achievement of a DLI target cannot be verified, the amount for that trigger will be withheld and paid only when such an achievement can be verified in accordance with the FA. The fourth year of the project would be the final date to claim disbursements and all would have to be settled by September 30, 2023.

56. An IVA will be recruited by the MoE to review the achievements and evidence (for example, by conducting school visits) provided by the government information systems. Potential IVA(s) could include



autonomous universities, reputable NGOs, DPs, the General Audit Commission or private consulting firms. As is the case for the G2B Project, this project's IVR will be submitted annually and include evidence of achievement presented to the World Bank for review before disbursement. The IVA will also be tasked with the responsibility to report on structural challenges that are preventing the DLI from being met.

57. The annual verification process will follow a series of steps, including reporting by the Government on achievement of targets to the Legal, Disbursement Unit of the World Bank, and provision of relevant documents and data. An Interim Eligible Expenditures Program (EEP) report by the PDT is submitted to the World Bank Steps leading to disbursement against DLIs will be sequenced as follows:

- Review of the achievements of targets for all six DLIs by an IVA contracted to undertake the review and submission of a report (IVR) to the MoE and the PFMU of MFDP
- Review of IVA report by the PFMU and submission to the World Bank
- Review of the IVA report by the World Bank and requests for clarifications/revisions if needed
- Certification by the World Bank based on IVR
- Disbursement of financial tranche associated with achieved DLI milestone

Procurement

58. The Recipient will carry out procurement under the proposed Project in accordance with (a) World Bank's *Procurement Regulations for IPF Borrowers (Procurement in IPF – Goods, Works, Non-Consulting and Consulting Services; July 2016, revised November 2017 and August 2018)*; (b) World Bank's *Guidelines for Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated October 15, 2006, and revised in January 2011 and as of July 1, 2016*; and (c) the provisions stipulated in the FA.

Institutional Arrangements for Procurement

59. Procurement under this project shall be carried out by the PDT of the MoE. The institutional arrangements for procurement build on the institutional arrangements used under the ongoing Liberia G2B Project.

60. The capacity assessment of the MoE was conducted by the World Bank team during the project preparation process on September 20, 2018. The MoE as a procuring entity has a history of implementing World Bank-funded projects. In compliance with the Public Procurement and Concessions Act (PPCA) amended and restated in September 2010, the MoE is a procuring entity with a Procurement Unit (PU) and a Procurement Committee (PC). The Procurement Division is headed by a qualified Procurement Director, who is supported by a team of seven other procurement staff, all of whom have limited experience with World Bank financed procurements. The capacity of the MoE will be enhanced to effectively carry out the operation. To do this, an International Procurement Specialist (IPS) with qualifications and experience satisfactory to the World Bank will be recruited within six months of signing the FA for the initial 18 months of project implementation. The IPS will be embedded in the PDT and will also work closely with the MoE Procurement Division to build the capacity of the MoE procurement staff through training, mentoring, and coaching, and assist the Project move the high value procurement packages. The IPS will further assist the MoE to ensure that procurement under the project is done in accordance with the Procurement Regulations of the World Bank.



61. The abovementioned assessment rated the overall procurement risk Substantial, given the procurement scope and associated risks identified. The assessment findings identified the following weaknesses which could adversely influence the project implementation if not mitigated and the proposed mitigation measures:

Table A.1.5: Procurement Risk Assessment and Mitigation Action Plan

Risk	Action	Responsible Agency	Expected Completion Date
Delays in procurement processing due to limited experience in open international bidding processes and procurement of Consulting Services	<p>PDT of MoE will recruit an IPS with qualifications and experience satisfactory to the World Bank during the initial 18 months of project implementation, to build the capacity of the MoE procurement staff through training, mentoring, and coaching and assist to move the big-ticket procurement items</p> <p>MoE will assign and maintain throughout project implementation at least one dedicated qualified National Procurement Officer from the Procurement Division, with a Post-Graduate Diploma in Public Procurement from the Financial Management Training Program (FMTP).</p>	MoE	<p>Within six months of signing the Financing Agreement</p> <p>Within four weeks of signing the Financing Agreement</p>
Inadequate understanding of the World Bank Procurement Regulations for IPF Borrowers.	Procurement and PDT staff will receive training on the World Bank Procurement Regulations for IPF Borrowers. The World Bank will also provide constant support to PDT to ensure adherence to the Procurement Regulations.	World Bank and MoE	Throughout project implementation
Limited capacity to effectively carryout procurement planning in STEP	Capacity building will be provided by the World Bank on procurement planning and use of STEP.	World Bank	Throughout project implementation
Inadequate contract management capacity causing implementation delays	<ul style="list-style-type: none"> (i) Key staff who will be involved in project implementation will undergo contract management training to enhance their capacity; (ii) The Project will hire a qualified and experienced National Contract Management Specialist with engineering background, specialized in managing construction contracts; (iii) MoE will closely collaborate with MPW through a Memorandum of Understanding (MoU); (iv) MoE will strengthen the use of its Department of Physical Environment. 	MoE	<p>During project implementation</p> <p>During project implementation</p> <p>Throughout project implementation</p> <p>Throughout project implementation</p>
Procurement procedures of this project will be reflected in the PIM	Adopt and update the existing manual to introduce procurement arrangements planned for this project.	MoE	Prior to Effectiveness
Poor record management	MoE will put in place an effective and secure record management system and assign dedicated staff responsible for maintenance of records.	MoE	During project implementation



62. **Filing and record keeping:** The Procurement Manual (part of the PIM) will set out the detailed processes for maintaining and providing readily available access to project procurement records, in compliance with the FA. The MoE will assign one person responsible for maintaining the records. The logbook of the contracts with unique numbering system shall be maintained.

63. **Commitment Control System:** The signed contracts as in the logbook shall be reflected in the commitment control system of the Procuring Entities' accounting system or books of accounts as commitments whose payments should be updated with reference made to the payment voucher. This will put in place a complete record system whereby the contracts and related payments can be corroborated.

64. **PPSD:** As part of preparation of the project, the MoE (with support from the World Bank) has prepared its PPSD, using inputs taken from a market survey and analysis of potential contractors and suppliers available for the proposed procurement scope, the assessment of operational context, their institutional capacity as well as procurement related risk analysis. Through these analytical assessments, the PPSD made recommendations on procurement arrangements under the proposed project and the associated Procurement Plan and addresses how procurement activities would support the achievement of the PDO and deliver the best value for money under a risk-managed approach. The PPSD indicates the following procurement scope for IDA financing, which will support the achievement of the PDO:

a. **Civil works.** Works will include contracts for (i) refurbishment of offices and facilities for the PDT, (ii) Refurbishment of classrooms in an existing building at a selected teacher training institution, (iii) construction of three new SSSs; and (iii) expansion of 25 junior high schools in rural areas.

b. **Goods.** Goods will include contracts for (i) Procurement of office furniture for the PDT; (ii) Procurement of office equipment for the PDT; and (iii) Procurement of computers, projector, laptops for the establishment of a computer lab at a selected pre-service institution.

c. **Consulting services.** The consulting services will include (i) Consulting services for the design, drawing development and site plans; (ii) Consulting services for the construction supervision; (iii) Consulting services for the design of the girls education initiative to remove barriers to transition and completion; (iv) Consulting services to develop teacher licensing framework; associated training requirements and models, train master trainers at the regional teacher training institutes and provide quality assurance; (v) Consulting services for the hiring of an IVA; (vi) Consulting services to develop pre-service teacher framework and revamping the existing program; (vii) Consulting services to develop a textbook management system and build capacity at the Center for Curriculum and Textbook Research to maintain the system; (viii) Consulting services to develop a textbook application and digital platform for storing textbooks and building capacity of the MoE to maintain the platform; (ix) Consulting services to build capacity at the school level to use digital learning content and provide technical support in the use of the system; (x) Hiring of an IPS; and (xi) Hiring of a Contract Management Specialist.

d. **Operational costs:** Project operation costs such as motor vehicles operation and maintenance cost, maintenance of equipment, communication costs, rental expenses, utilities expenses, consumables, supervision etc.

65. **Summary of procurement arrangements.** The World Bank has reviewed the outputs of the Procurement Strategy developed by the Recipient and agrees with the proposed Procurement Arrangements



under the project. The procurement method and review thresholds may be subject to the World Bank’s review and modification throughout the project period based on the procurement performance and risk rating of the project. The World Bank will make official notice about such changes in a timely manner to ensure smooth implementation.

Table A.1.6: Preferred Arrangement for Low Value, Low Risk Activities

Activity	Category	Estimated cost US\$	Procurement arrangement
Procurement of office furniture for the PDT	Goods	7,000.00	Limited, National, RFQ*
Procurement of office equipment for the PDT	Goods	10,000.00	Limited, National, RFQ
Refurbishment of offices and facilities for the PDT	Works	5,000.00	Limited, National, RFQ
Construction of 3 new high schools	Works	3,300,000.00	Open, National, RFB**
Expansion of 23 JSS in rural areas	Works	4,025,000.00	CDD***
Expansion of 2 JSS	Works	350,000	CDD
School rehabilitation and renovation	Works	6,005,000.00	CDD
Consulting services for developing design standards, drawings, specifications as well as BoQ (national school construction strategy) -	Consulting Services	150,000.00	Limited, National, CQS****
Consulting services for the construction supervision	Consulting Services	750,000.00	Limited, National, CQS
Consulting services to support girls’ education interventions to remove barriers to transition and completion (design girls’ scholarship program, define the role of female guidance counsellors and develop training modules and set up community engagement framework and operational plan)	Consulting Services	100,000.00	Limited, National, INDV*****
Consulting services for development of the feedback-based training system, in particular the development and delivery of the training materials and programs.	Consulting Services	720,000.00	Open, National, CQS
Consulting services for the hiring of an IVA	Consulting Services	750,000.00	Open, National, QCBS*****
Consulting services to review and revamp the existing pre-service teacher training program at University of Liberia	Consulting Services	400,000.00	Open, National, CQS
Consulting services for developing a teaching workforce planning and management system	Consulting Services	100,000.00	Open, National, CQS
Consulting services to review and revise MoE’s existing textbook guidelines and build capacity at the Center for Curriculum and Textbook Research	Consulting Services	150,000.00	Open, National, CQS



Activity	Category	Estimated cost US\$	Procurement arrangement
to maintain the system			
Consulting services to develop a textbook application and digital platform for making textbooks available online and building capacity of the MoE to maintain the platform	Consulting Services	150,000.00	Open, National, CQS
Consulting services to support identification and adaptation of textbooks for five subject areas (Math, English, Physics, Chemistry and Biology) for grades 10, 11 and 12.	Consulting Services	1,250,000.00	Open, International, QCBS
Consulting services to develop a national ICT strategy for the integration of digital technology in senior secondary education	Consulting Services	200,000.00	Open, National, CQS
Consulting services to conduct a feasibility study of capacity-building needs of MoE and education institutions involved in the project implementation and developing corresponding programs to address the identified capacity gaps.	Consulting Services	500,000.00	Open, National, QCBS
Hiring of an IPS	Consulting Services	180,000.00	Open, International, INDV
Hiring of a National Works Contract Management Specialist	Consulting Services	48,000.00	Limited, National, INDV

* Request for Quotations

** Request for Bids

*** Community-driven development, with regards to the CDD approach, the World Bank’s new procurement guidelines (Section 6.52) specify that procurement arrangements may be suitably adapted, in a way that is acceptable to the World Bank, when, in the interest of project sustainability, or to achieve certain specific social objectives of the project, it is desirable (in selected project components), to: a) call for the participation of local communities and/or NGOs in civil works and the delivery of non-consulting services; b) increase the use of local know-how, goods, or materials; and c) employ labor-intensive and other appropriate technologies. The procurement requirements and processes will to be used for CDD will be detailed in the Operations Manual.

**** Consultant’s Qualifications-based Selection

***** Individual Consultant Selection

***** Consultant’s Quality and Cost-based Selection

66. **Procurement Thresholds.** The table below shows the Thresholds and Procurement Methods to be used under the Project given a risk rating of Substantial:



Table A.1.7: Procurement Thresholds Methods and Prior-review Thresholds

Prior-review Thresholds		Thresholds for Procurement Methods							
Procurement Type	Substantial Risk (US\$'000)	Works			Goods, IT and Non-Consulting Services			Shortlist of National Consultants	
Works	10,000	Open International or ICB (US\$'000)	Open National or NCB (US\$'000)	Request for Quotation or National Shopping (US\$'000)	Open international or ICB (US\$'000)	Open National or NCB (US\$'000)	Request for Quotation or National Shopping (US\$'000)	Consulting Services (US\$'000)	Engineering & Construction Supervision (US\$'000)
Goods, IT & Non-Consulting Services	2,000	≥	<	≤	≥	<	≤	<	≤
Consultants (Firms)	1,000	5,000	5,000	200	500	500	100	100	200
Individual Consultants	300								

*These thresholds are for the purposes of the initial procurement plan for the first 18 months. The thresholds will be revised periodically.

67. **Procurement Plan.** MoE has prepared a Procurement Plan for components that will be implemented using IPF under the project, based on the findings and recommendations of the PPSD. The Procurement Plan is subject to public disclosure and will be updated on an annual basis or as needed by including contracts previously awarded and to be procured. The updates or modifications of the Procurement Plan shall be subject to the World Bank’s prior review and ‘no objection’. The World Bank shall arrange for the publication of the Procurement Plan and any updates on the World Bank’s external website directly from STEP, while MoE will do the publication on its project or the government’s Executive Mansion website.

68. **Monitoring by STEP.** Through mandatory use of STEP by the Recipient, the World Bank will be able to consolidate procurement/contract data for monitoring and tracking of all procurement transactions. Using STEP, comprehensive information of all prior and post review contracts for goods, works, technical services, and consultants’ services awarded under the whole project will be available automatically and systematically on a real time basis whenever required, including, but not limited to: (a) the reference number as indicated in the Procurement Plan and a brief description of the contract; (b) the estimated cost; (c) the procurement method; (d) timelines of the bidding process, (e) the number of participated bidders; (f) names of rejected bidders and reasons for rejection; (g) the date of contract award; (h) the name of the awarded supplier, contractor, or consultant; (i) the final contract value; and (j) the contractual implementation period.



69. **Publication of Procurement Information.** The project will follow the World Bank's policies on publication of procurement information that are set forth in the World Bank's Procurement Regulations.

70. **Procurement Post Review.** Contracts below the abovementioned prior review thresholds shall be subject to post review according to procedures set forth in World Bank Procurement Regulations on an annual basis by the World Bank team. The rate of post review is initially set at 20 percent. This rate may be adjusted periodically based on the performance of the Procuring Entity.

71. **Special Considerations.** Liberia is on the harmonized list of Fragile and Conflict affected States (FCS). Procurement arrangements therefore also draw on the World Bank Guidance on Procurement Procedures in Situations of Urgent need of Assistance or Capacity Constraints issued on July 1, 2016.

72. **Training, Workshops, Study Tours, and Conferences.** Training activities would comprise workshops and training, based on individual needs, as well as group requirements, on-the-job training, and hiring of consultants for developing training materials and conducting trainings. Selection of consultants for training services follows the requirements for selection of consultants above. All training and workshop activities (other than consulting services) would be carried out on the basis of approved Annual Work Plans / Training Plans that would identify the general framework of training activities for the year, including: (i) the type of training or workshop; (ii) the personnel to be trained; (iii) the institutions which would conduct the training and reason for selection of this particular institution; (iv) the justification for the training, focusing on how it would lead to effective performance and implementation of the project; (v) the duration of the proposed training; and (vi) the cost estimate of the training. Report by the trainee(s), including completion certificate/diploma upon completion of training, shall be provided to the Project Coordinator and will be kept as parts of the records, and will be shared with the World Bank if required.

73. **Training Plan.** A detailed plan of the training/workshop describing the nature of the training/workshop, number of trainees/participants, duration, staff months, timing and estimated cost will be submitted to IDA for review and approval prior to initiating the process. The selection methods will derive from the activity requirement, schedule and circumstance. After the training, the beneficiaries will be requested to submit a brief report indicating what skill have been acquired and how these skills will contribute to enhance their performance and to attain the project objective.

74. **Operational Costs.** Operational costs financed by the Project would be incremental expenses, including office supplies, operation and maintenance of vehicles, maintenance of equipment, communication, rental expenses, utilities, consumables, transport and accommodation, per diem, supervision, and salaries of locally contracted support staff. Such services' needs will be procured using the procurement procedures specified in the PIM accepted and approved by the World Bank.

75. **Procurement Manual.** Procurement arrangements, roles and responsibilities, methods and requirements for carrying out procurement shall be elaborated in detail in the Procurement Manual which will be a section of the PIM. The PIM shall be prepared by the Recipient and agreed with the World Bank prior to project effectiveness.



C. Implementation Arrangement for Environmental and Social Safeguards

76. The MoE will be responsible for overseeing the implementation of environmental and social safeguards throughout IRISE implementation, in collaboration with the MGCSP and the MPW. Since the proposed school constructions financed by the Project may trigger some safeguards issues such as involuntary displacement, land acquisition, restriction to the land access, resettlement and cultural properties resources (safeguard policies OP/BP 4.11 and OP/BP 4.12), the MoE has developed the Environmental and Social Safeguards Management Framework (ESMF) and the RPF to establish clear procedures and methodologies for the environmental and social planning, review, approval and implementation of civil works to be financed under the project.

77. During the implementation, each school construction site will produce an ESMP. The winning contractor(s) will produce a CESMP. The completion of ESMPs and CESMP will be required prior to the start of construction work. The Bureau of Planning, Research and Development at the MoE will be responsible for both development and implementation of these plans and monitor the results, in collaboration with the MPW.

D. Implementation Arrangement for M&E

78. Overall, monitoring of progress made under the project and its performance will be the responsibility of the Department of Planning, Research and Development at the MoE with delegation to the PDT. The PDT will play a lead role in monitoring of implementation progress and implementation of specific activities under the project. The PDT will carry out regular meetings with the leads of each of the components who will provide relevant information on progress of activities under their respective components. The PDT with support from the team's M&E specialist will be responsible for compiling information on each component, to include relevant data, and progress on each of the PDO-level and intermediate results indicators every six months. A report will be produced every six months with an annual progress report produced at the end of the year. This progress report will inform the implementation status and results report and may be shared with other donors during an education sector review. The PDT will also be responsible for providing information related to progress made/achievement with regards to DLIs, as needed. The PDT will also be responsible for providing IFRs and audit reports. The project will use the MoE's existing M&E infrastructure as much as possible to carry out M&E activities, with support for capacity-building provided under Component 4.

79. **Data sources.** Established MoE monitoring systems will be the main source of data with additional reports from the IVA (see below) validating milestones where required. Official statistics from the annual school census (undertaken by the EMIS unit) will provide data to assess progress for some indicators in the RF. In addition, data will be provided through the SQA tool, and other data gathered by the DEOs, as well as student learning assessments, household surveys and teacher payroll. These data may come from the LISGIS which collects DHS and HIES data for the Government and related datasets or the CSA which is a repository for teacher payroll data. Support to improving school management, accountability and systems monitoring supported under both Components 1 and 4 will strengthen the availability of data for the MoE and strengthen its capacity to use these data for decision-making.

80. **An IVA will be recruited to verify the achievement of the DLI targets.** Its role will extend to desk reviews as well field visits and focus group discussions as a measure of sampling feedback from beneficiaries.



The IVA's role will entail verifying that due diligence has been carried out in achieving all targets. This will be done through reviews of documentation and sample surveys. The IVA will be hired by the MoE to verify project results using DLIs (under Components 2 and 3).

81. **Results framework.** The RF has both PDO and intermediate results indicators with specified targets by year. It will be used to monitor the progress of the project implementation and will provide input for semi-annual reports and annual progress reports. These indicators are aligned with the G2B-ESP and SDG 4 indicators to ensure coherence of monitoring and reduce replication. The MoE is expected to hold annual Joint Education Sector Reviews to measure the progress made against achievement of the ESP objectives.



ANNEX 2. Disbursement-Linked Indicators Matrix and Veification Protocol

Table A.2.1 DLI Matrix

DLI Description	Total Financing Allocated to DLI	DLI Baseline	Year 0 (FY18/19)	Year 1 (FY19/20)	Year 2 (FY20/21)	Year 3 (FY21/22)	Year 4 (FY22/23)
DLI #1 Increased girls' access, retention and completion in secondary education		0		<p>1.1 Girls' Education Scholarship Program Guidelines developed and adopted by the MoE (US\$0.5 million)</p> <p>1.2 Female Guidance Counselors' ToR, for Female Guidance Counselors' roles and responsibilities, defined and adopted by the MoE (US\$0.5 million)</p>	<p>1.3 At least 900 female students enrolled in Grade 10 in Selected Counties received Scholarships [Baseline: 0] (US\$1.5 million)</p>	<p>1.4 At least 1,800 female students enrolled in Grade 10 or 11 in Selected Counties received Scholarships under the Updated Girls' Education Scholarship Program Guidelines [Baseline: 0] (US\$1.0 million)</p> <p>1.5 At least 150 (in addition to baseline) Female Guidance Counselors are hired, trained and deployed to SSSs [Baseline: 12] (US\$1.0 million)</p>	<p>1.6 At least 2,700 female students enrolled in Grade 10, 11 or 12 in Selected Counties received Scholarships under the Updated Girls' Education Scholarship Program Guidelines [Baseline: 0] (US\$0.5 million)</p>
Allocated Amount (US\$, millions)	US\$5.0 million		0	US\$1.0 million	US\$1.5 million	US\$2.0 million	US\$0.5 million
DLI #2 Improved pre-service teacher training			<p>2.1 Implementation plan to modernize Pre-service Teacher Training developed by UL-TC (US\$0.5 million)</p>	<p>2.2 Pre-service Bachelor's degree curricula in UL-TC reviewed, revised and finalized (US\$0.5 million)</p>	<p>2.3 Training materials based on the Revised Curricula developed and validated (US\$0.5 million)</p>		<p>2.4 Pre-service Bachelor's degree programs Launched at UL-TC (US\$0.5 million)</p>
Allocated Amount (US\$, millions)	US\$2.0 million		US\$0.5 million	US\$0.5 million	US\$0.5 million	0	US\$0.5 million



<p>DLI #3 Improved in-service teacher training</p>				<p>3.1 Student LSHSCE/WASSCE test results by subject and by question from the last three years (2016-2018) analyzed for at least 5 subjects, gaps identified, and content gap analysis report drafted and finalized (US\$1.5 million)</p>	<p>3.2 Training materials and modules for teachers developed, based on the gaps identified from Year 1 and validated (US\$1.5 million)</p>	<p>3.3 Training provided as pilot to at least 25 percent of public and community SSS teachers in English, Math, Biology, Chemistry and Physics using the developed training materials and modules, evaluated and revised [Baseline: 0] (US\$1.0 million)</p>	<p>3.4 At least 95 percent of all public and community SSS teachers in English, Math, Biology, Chemistry and Physics trained [Baseline: Year 3 achievement] (US\$0.5 million for 70 percent of teachers trained (cumulative of percent in Year 3) and additional US\$0.1 m for each 5-percentage point increase in percent of teachers trained (capped at 95 percent of teachers trained)) (US\$1.0 million)</p>
<p>Allocated Amount (US\$, millions)</p>	<p>US\$5.0 million</p>		<p>0</p>	<p>US\$1.5 million</p>	<p>US\$1.5 million</p>	<p>US\$1.0 million</p>	<p>US\$1.0 million</p>
<p>DLI #4 Improved Qualification Profile of the Teaching Workforce</p>			<p>4.1 CSA-MoE employee payroll registry received showing the list of all staff and identifying staff who are at or above the Mandatory Retirement Age (US\$1.0 million)</p>	<p>4.2 (a) CSA-MoE employee payroll registry received showing no staff at or above the Mandatory Retirement Age; and (b) List of teachers who were on the CSA-MoE employee payroll registry in DLI 4.1 and removed at Mandatory</p>		<p>4.3 At least 80 percent of the number of secondary school teachers on the list described in DLI 4.2(b) replaced by new recruits, who meet the Government Teacher Qualification Requirements and at least 80 percent of the total number of teachers on the same list also replaced by new recruits, who meet the Government Teacher Qualification Requirements [Baseline: 0] (US\$1.0 million)</p>	<p>4.4 At least 90 percent of all the number of teachers (cumulative of percent in DLI 4.3) on the list described in DLI 4.2(b) replaced by new recruits, who meet the Government Teacher Qualification Requirement [Baseline: Year 3 achievement] (US\$1.0 million) 4.5 At least 90 teachers who</p>



				Retirement Age by Year 1, received (US\$1.0 million)			meet the Government Teacher Qualification Requirements deployed to Completed Sites [Baseline: 0] (US\$1.0 million)
Allocated Amount (US\$, millions)	US\$4.0 million		US\$1.0 million	US\$1.0 million	0	US\$1.0 million	US\$1.0 million
DLI #5 Increased access to textbooks at the senior secondary level			5.1 A Technical Working Group established with clearly defined roles and responsibilities to guide and oversee the implementation of the provision of teaching and learning materials in SSSs (US\$0.5 million)	5.2 MoE's Proposed Guidelines for Textbook Origination, Provision and Management reviewed, revised and approved by the MoE (US\$1.0 million)		5.3 Textbooks for Grades 10, 11 and 12 in English, Math, Physics, Chemistry and Biology identified, adapted and approved by the MoE [Baseline: 0] (US\$0.4 million for textbook(s) for each subject covering all three Grades 10, 11, and 12) (US\$2.0 million)	5.4 For each of the five subjects textbooks approved in DLI 5.3 across Grades 10, 11 and 12, procured and distributed to at least 90 percent of public and community SSSs, reaching at least textbook to student ratio of 1:5 [Baseline: 0 percent and 1:16 textbook to student ratio respectively] (US\$0.2 million for each subject textbook(s) covering all three Grades 10, 11, and 12 procured and distributed to at least 90 percent of public and community SSSs reaching at least textbook to student ratio of 1:5 at the school) (US\$1.0 million) 5.5 (a) An e-book app and online textbook platform developed; and



							(b) Textbooks approved in DLI 5.3 made available as e-books through the app and the online textbook platform (US\$1.0 million)
Allocated Amount (US\$, millions)	US\$5.5 million		US\$0.5 million	US\$1.0 million		US\$2.0 million	US\$2.0 million
DLI #6 Improved access to basic digital skills training for senior secondary students				6.1 A national ICT Strategy for Senior Secondary Education developed and approved by the MoE (US\$1.0 million)	6.2 Four (4) mobile computer labs operational in Montserrado and five (5) school-based computer labs operational in Targeted Schools [Baseline: 0] (US\$1.0 million)		6.3 Evaluation of mobile computer lab vs. school-based computer lab approach for providing digital skills completed and report finalized and disseminated in a stakeholder vetting workshop (US\$0.5 million)
Allocated Amount (US\$, millions)	US\$2.5 million		0	US\$1.0 million	US\$1.0 million	0	US\$0.5 million
Total DLI Disbursement (US\$, millions)	US\$24.0 million		US\$2.0 million	US\$6.5 million	US\$6.0 million	US\$5.0 million	US\$4.5 million



Table A.2.2 DLI Verification Protocol

DLI	Protocol to Evaluate Achievement of the DLI and Data/Result Verification			
	Data Source	Verification Entity	Description of Achievement	Verification Procedure
DLI #1 Increased girls' access, retention and completion in secondary education	For 1.1 and 1.2: Project monitoring report	IVA	<p>Year 1:</p> <p>1.1 Achieved when the Girls' Education Scholarship Program Guidelines including the selection criteria are developed and adopted by MoE, satisfactory to the World Bank. (US\$0.5 million)</p> <p>1.2 Achieved when the ToR for Female Guidance Counselors including roles and responsibilities as well as required qualifications are defined and adopted by MoE. (US\$0.5 million)</p>	<p>1.1 The Division of Scholarships at the MoE submits the Girls' Education Scholarship Program Guidelines to PDT who sends it to the IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>1.2 The Bureau of Student Personnel Services at the MoE submits the ToR for female guidance counselors to PDT who submits them to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
	For 1.3: Project monitoring report and a survey of a representative sample of beneficiaries		<p>Year 2:</p> <p>1.3 Achieved when at least 900 female students enrolled in Grade 10 in public and community SSSs in Bomi, Gbarpolu, Grand Bassa and Sinoe (4 Selected Counties) who meet the selection criteria outlined in the Girls' Education Scholarship Program Guidelines received the yearly scholarship</p>	<p>1.3 The Division of Scholarships at the MoE submits the list of scholarship recipients to the PDT who sends it to the IVA for verification. IVA undertakes a survey of a representative sample of beneficiaries to determine receipt of the scholarship money by the targeted beneficiaries and</p>



DLI	Protocol to Evaluate Achievement of the DLI and Data/Result Verification			
	Data Source	Verification Entity	Description of Achievement	Verification Procedure
			amount for the 2020/21 academic year. [Baseline: 0] (US\$1.5 million)	to ensure that all the criteria in the guidelines were met. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.
	For 1.4: Project monitoring report and a survey of a representative sample of beneficiaries		<p>Year 3:</p> <p>1.4 Achieved when at least 1,800 female students enrolled in Grade 10 or Grade 11 in public and community SSSs in Bomi, Gbarpolu, Grand Bassa and Sinoe (4 Selected Counties) who meet the selection criteria outlined in the Updated Girls' Education Scholarship Program Guidelines received the yearly scholarship amount for the 2021/22 academic year. Girls' Education Scholarship Program Guidelines will be updated based on a process evaluation of the program in the previous year. [Baseline: 0] (US\$1.0 million)</p> <p>1.5 Achieved when at least 150 Female Guidance Counselors (in addition to the existing female guidance counselors deployed in SSSs in the MCSS) who meet the requirements outlined in the ToR are hired, trained and deployed to public and community SSSs. [Baseline: 12]</p>	<p>1.4 The Division of Scholarships at the MoE submits the list of scholarship recipients to the PDT who sends it to the IVA for verification. IVA undertakes a survey of a representative sample of beneficiaries to determine receipt of the scholarship money by the targeted beneficiaries and to ensure that all the criteria in the guidelines were met. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>1.5 The Bureau of Fiscal Affairs & Human Resources Development at the MoE submits the current CSA-approved list of the hired, trained and deployed female guidance counselors who are on the teacher payroll to PDT who sends it to IVA for verification. IVA submits the verification report to both the MoE and</p>
	For 1.5: ASC / School Quality Assessment report, CSA-approved annual payroll registry and project monitoring report			



DLI	Protocol to Evaluate Achievement of the DLI and Data/Result Verification			
	Data Source	Verification Entity	Description of Achievement	Verification Procedure
			(US\$1.0 million)	the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.
	For 1.6: ASC / School Quality Assessment report and project monitoring report		Year 4 1.6 Achieved when at least 2,700 female students enrolled in Grade 10, Grade 11 or Grade 12 in public and community SSSs in Bomi, Gbarpolu, Grand Bassa and Sinoe (4 Selected Counties) who meet the selection criteria outlined in the previously Updated Girls' Education Scholarship Program Guidelines received the yearly scholarship amount for the 2022/23 academic year. [Baseline: 0] (US\$0.5 million)	1.6 The Division of Scholarships at the MoE submits the list of scholarship recipients to the PDT who sends it to the IVA for verification. IVA undertakes a survey of a representative sample of beneficiaries to determine receipt of the scholarship money by the targeted beneficiaries and to ensure that all the criteria in the guidelines were met. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.
DLI #2 Improved pre-service teacher training	For 2.1, 2.2, 2.3 and 2.4: Project monitoring report	IVA	Year 0 2.1 Achieved when the implementation plan to modernize Pre-service teacher training is developed by UL-TC, satisfactory to MoE and World Bank (US\$0.5 million)	2.1 UL-TC submits the implementation plan to modernize its Pre-service teacher training programs to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.



DLI	Protocol to Evaluate Achievement of the DLI and Data/Result Verification			
	Data Source	Verification Entity	Description of Achievement	Verification Procedure
			<p>Year 1 2.2 Achieved when the Pre-service Bachelor’s degree curricula for English education, Math education and Science education (Physics, Chemistry and Biology) at UL-TC are reviewed and revised on the basis of the review and finalized. To be finalized the revised curricula have to be validated through a stakeholder workshop including (but not limited to) MoE representatives and faculty from teacher training institutions. (US\$0.5 million)</p>	<p>2.2 UL-TC submits the finalized Pre-service Bachelor’s degree curricula in English education, Math education and Science education (Physics, Chemistry and Biology) to the PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
			<p>Year 2 2.3 Achieved when training materials for Pre-service Bachelor’s degree programs in English education, Math education and Science education (Physics, Chemistry and Biology) are developed by UL-TC based on the finalized curricula and validated in a stakeholder workshop involving stakeholders including (but not limited to) representatives from the MoE and faculty from teacher training institutions. (US\$0.5 million)</p>	<p>2.3 UL-TC submits the validated training modules and materials to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
			<p>Year 4 2.4 Achieved when the revised Pre-service Bachelor’s degree programs in English education, Math education and Science education (Physics, Chemistry and Biology) commence in UL-TC – being available to new</p>	<p>2.4 UL-TC submits the registration and attendance record from the Pre-service Bachelor’s degree programs and implementation progress reports to PDT who submits to IVA for verification. IVA</p>



DLI	Protocol to Evaluate Achievement of the DLI and Data/Result Verification			
	Data Source	Verification Entity	Description of Achievement	Verification Procedure
			entrants using the revised curricula, the new training materials, and taught by faculty who have been trained on the new program. (US\$0.5 million)	submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.
DLI #3 Improved in-service teacher training	For 3.1: Content gap analysis report and project monitoring report	IVA	Year 1 3.1 Achieved when the student LSHSCE/WASSCE test results by subject and by question from the last three years (2016-2018) are analyzed for at least 5 subjects (Math, English, Biology, Chemistry, and Physics), gaps in subject content mastering are identified and content gap analysis report drafted and finalized. (US\$1.5 million)	3.1 The Bureau of Basic & Secondary Education at the MoE submits the content gap analysis report to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.
	For 3.2: Project monitoring report		Year 2 3.2 Achieved when teacher training materials and modules are developed by MoE based on the content gap analysis report from Year 1 for at least 5 subjects (Math, English, Biology, Chemistry and Physics) and validated by stakeholders including a sample of SSS teachers selected by the MoE from schools in and outside Montserrat and representatives from teacher training institutions. (US\$1.5 million)	3.2 The Bureau of Teachers' Education at the MoE submits the validated training materials and modules, as described in the achievement description of DLI 3.2, to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.



DLI	Protocol to Evaluate Achievement of the DLI and Data/Result Verification			
	Data Source	Verification Entity	Description of Achievement	Verification Procedure
	For 3.3: Training evaluation report, project monitoring report		<p>Year 3 3.3 Achieved when at least 25 percent of all public and community SSS teachers who teach English, Math and Science (Physics, Chemistry or Biology) are trained using the training materials and modules developed in Year 2 and training program is piloted and evaluated by the Bureau of Teachers' Education with support from the service provider. [Baseline: 0] (US\$1.0 million)</p>	<p>3.3 The Bureau of Teachers' Education at the MoE submits the list of teachers who received the training and the training evaluation report to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
	For 3.4: Project monitoring report	IVA	<p>Year 4 3.4 Achieved when 95 percent of all public and community SSS teachers (cumulative of percent in Year 3) who teach English, Math and Science (Physics, Chemistry or Biology) are trained. Training in Year 4 conducted using the updated training materials and modules on the latest available students' WASSCE test results. (US\$0.5 million for 70 percent of teachers trained (cumulative of percent in Year 3) and additional US\$0.1 million for each 5 percentage point increase in percent of teachers trained (capped at 95 percent)) [Baseline: Year 3 achievement] (US\$1.0 million)</p>	<p>3.4 The Bureau of Teachers' Education at the MoE submits the list of teachers who received the training as described in the achievement description of DLI 3.4, to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
DLI #4 Improved	For 4.1: CSA-MoE employee payroll	IVA	<p>Year 0 4.1</p>	<p>4.1</p>



DLI	Protocol to Evaluate Achievement of the DLI and Data/Result Verification			
	Data Source	Verification Entity	Description of Achievement	Verification Procedure
qualification profile of the teaching workforce	registry and project monitoring report		Achieved when CSA-MoE employee payroll registry received showing the list of all staff and identifying staff who have reached the Mandatory Retirement Age of 65 years. (US\$1.0 million)	The Bureau of Fiscal Affairs & Human Resources Development at the MoE submits the CSA-approved employee registry and list of staff who are 65 years of age or older and meet the mandatory retirement criteria to PDT who sends it to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.
	For 4.2: CSA-MoE employee payroll registry and NASSCORP pension listing		<p>Year 1</p> <p>4.2</p> <p>Achieved when (a) CSA-MoE employee payroll registry received showing no staff at or above the Mandatory Retirement Age of 65 years; and (b) list of teachers who were on the CSA-MoE employee payroll registry in DLI 4.1 and removed at Mandatory Retirement Age (age of 65 years) by Year 1, received. (US\$1.0 million)</p>	<p>4.2</p> <p>The Bureau of Fiscal Affairs & Human Resources Development at the MoE submits the CSA-approved employee registry and the CSA-approved list of staff who received the handshake package and have been removed from the payroll registry for placement on NASSCORP pension list to PDT who sends it to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement. The handshake package is a one-time financial allotment staff are authorized to receive at retirement, the amount of which is determined by CSA policy and is related to years of service.</p>
			Year 3	



DLI	Protocol to Evaluate Achievement of the DLI and Data/Result Verification			
	Data Source	Verification Entity	Description of Achievement	Verification Procedure
	For 4.3: CSA-MoE employee payroll registry, MoE personnel listing and ASC/ School Quality Assessment report		<p>4.3 Achieved when At least 80 percent of the number of secondary school teachers on the list described in DLI 4.2(b) replaced by new recruits, who meet the Government Teacher Qualification Requirements and at least 80 percent of the total number of teachers on the same list also replaced by new recruits, who meet the Government Teacher Qualification Requirements to teach at the level for which they are recruited. [Baseline: 0] (US\$1.0 million)</p>	<p>4.3 The Bureau of Fiscal Affairs & Human Resource Development at the MoE submits the latest CSA-approved employee payroll registry and MoE personnel listing to the PDT who sends it to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
	For 4.4: CSA-MoE employee payroll registry, MoE personnel listing, ASC/ School Quality Assessment report and project monitoring report		<p>Year 4 4.4 Achieved when at least 90 percent of all the number of teachers (cumulative of percent in DLI 4.3) on the list described in DLI 4.2(b) replaced by new recruits, who meet the Government Teacher Qualification Requirements to teach at the level for which they are recruited. [Baseline: Year 3 achievement] (US\$0.5 million)</p>	<p>4.4 The Bureau of Fiscal Affairs & Human Resource Development at the MoE submits the latest CSA-approved employee payroll registry and latest MoE Personnel listing to the PDT who sends it to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>



DLI	Protocol to Evaluate Achievement of the DLI and Data/Result Verification			
	Data Source	Verification Entity	Description of Achievement	Verification Procedure
	For 4.5: CSA-MoE employee payroll registry, MoE personnel listing, ASC/ School Quality Assessment report and project monitoring report		<p>4.5 Achieved when at least 90 teachers who meet the Government Teacher Qualification Requirements deployed to completed sites. Completed sites refer to three new SSSs and 25 expanded JSS financed by the project. [Baseline: 0] (US\$0.5 million)</p>	<p>4.5 The Bureau of Fiscal Affairs & Human Resource Development at the MoE submits the latest CSA-approved employee payroll registry and latest MoE Personnel listing to the PDT who sends it to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
DLI#5 Increased access to textbooks at senior secondary level	For 5.1: Project monitoring report	IVA	<p>Year 0 5.1 Achieved when a TWG has been established with clearly defined ToR including roles and responsibilities. This group will guide and oversee the implementation of the provision of teaching and learning materials in SSSs and will at a minimum consist of representatives from the Bureau of Basic and Secondary Education, WAEC-Liberia, Division of Procurement at the MoE and Center of Excellence for Curriculum Development and Textbook Research. (US\$0.5 million)</p>	<p>5.1 The MoE submits an official letter that confirms the establishment of the TWG with the attached ToR and the member composition to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
	For 5.2: Project monitoring report and revised Guidelines		<p>Year 1 5.2 Achieved when the MoE's Proposed Guidelines for Textbook Origination, Provision and Management have been reviewed, revised and approved by the MoE. The revised Guidelines should include at a</p>	<p>5.2 The Center of Excellence for Curriculum Development and Textbook Research at the MoE submits the revised Proposed Guidelines for Textbook Origination, Provision and Management to PDT who</p>



DLI	Protocol to Evaluate Achievement of the DLI and Data/Result Verification			
	Data Source	Verification Entity	Description of Achievement	Verification Procedure
			minimum each of the sections in the existing MoE Guidelines. (US\$1.0 million)	submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.
	For 5.3: Project monitoring report and prototype copies of the newly approved textbooks		Year 3 5.3 Achieved when the textbooks covering the content of Grades 10-12 curriculum in English, Math, Physics, Chemistry and Biology are identified, adapted and approved by the MoE. [Baseline: 0] US\$0.4 million for textbook(s) for each subject covering all three Grades 10, 11, and 12 (US\$2.0 million)	5.3 The Center of Excellence for Curriculum Development and Textbook Research at the MoE submits the prototype copies of the newly adapted and approved textbooks as described in the definition of DLI 5.3 to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.
	For 5.4: Project monitoring report, ASC / School Quality Assessment report		Year 4 5.4 Achieved when each of the five subjects textbooks approved in DLI 5.3 across Grades 10, 11 and 12 are procured and distributed to at least 90 percent of public and community SSSs, reaching at least textbook to student ratio of 1:5 by subject. The textbooks for Grades 10, 11, and 12 for a given subject can be combined and printed as a single textbook or separately. [Baseline: 0 percent and 1:16 textbook to student ratio respectively] (US\$0.2 million for each subject textbook(s))	5.4 The Division of Procurement at the MoE provides the list of all public and community SSSs that have received the hard-copies of the newly adapted and approved textbooks under the Project to PDT who submits to IVA. IVA will verify receipt of the hard-copies of the textbooks by each school through a survey and compare the total number of books received by subject against the enrollments by grade for Grades 10-12 at each school. IVA submits the verification



DLI	Protocol to Evaluate Achievement of the DLI and Data/Result Verification			
	Data Source	Verification Entity	Description of Achievement	Verification Procedure
	For 5.5: Project monitoring report, website and app		<p>for the three grades procured and distributed to at least 90 percent of public and community SSSs reaching at least textbook to student ratio of 1:5 at the school) (US\$1.0 million)</p> <p>5.5 Achieved when (a) an e-book app and online textbook platform developed; and (b) all textbooks approved in DLI 5.3 made available as e-books through the app and the online textbook platform. (US\$1.0 million)</p>	<p>report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p> <p>5.5 The Center of Excellence for Curriculum Development and Textbook Research at the MoE submits the link to the live website and the app where the textbooks developed under DLI 5.3 have been uploaded and are accessible by the public to PDT who submits to IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
DLI #6 Improved access to basic digital skills training for senior secondary students	For 6.1, 6.2 and 6.3: Project monitoring report	IVA	<p>Year 1 6.1 Achieved when a national strategy for ICT application in senior secondary education (“ICT strategy”) including an ICT curriculum, competency standards for students, qualification requirements for teachers and implementation modality, developed and approved by the MoE. (US\$1.0 million)</p>	<p>6.1 The Division of STEM at the MoE submits the ICT strategy as described in the definition of DLI#6.1 to PDT who sends it to the IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
			<p>Year 2 6.2</p>	<p>6.2</p>



DLI	Protocol to Evaluate Achievement of the DLI and Data/Result Verification			
	Data Source	Verification Entity	Description of Achievement	Verification Procedure
			<p>Achieved when at least four mobile computer labs in Montserrat county and five school-based computer labs in targeted schools are operational (in use or ready for use by teachers and students). Schools receiving the school-based computer labs will include five public and community SSSs that will be selected based on total student enrollment at the senior secondary level, availability of space for a computer lab on the school premises and must be located in an urban area (outside Montserrat county).</p> <p>[Baseline: 0] (US\$1.0 million)</p>	<p>The Division of STEM at the MoE submits an implementation status report on the mobile labs and school-based computer labs to PDT who sends it to the IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>
			<p>Year 4</p> <p>6.3</p> <p>Achieved when an evaluation of mobile computer lab vs. school-based computer lab approach for providing digital skills is completed and the report is finalized and disseminated in a stakeholder vetting workshop. The evaluation will cover at least the four mobile computer labs and the five school-based computer labs in targeted schools described in DLI 6.2 and three additional school-based computer labs that will be operational in the three newly constructed SSSs under the project.</p> <p>(US\$0.5 million)</p>	<p>6.3</p> <p>The Division of STEM at the MoE will submit the final evaluation and dissemination report to PDT who sends it to the IVA for verification. IVA submits the verification report to both the MoE and the World Bank. The MoE will then submit the verification report approved by the World Bank to PFMU for disbursement.</p>



ANNEX 3: Economic and Financial Analysis

1. The economic argument for investing in the IRISE Project is summarized in this Annex, by presenting: (i) the rationale for public sector provision/financing; and (ii) the expected human capital impact, including a cost-benefit and financial analysis.

A. Rationale for Public Investment in Senior Secondary Education

2. **A strong case for investing in senior secondary education can be made on the grounds of economic growth, poverty reduction and social cohesion.** Several studies find that improvement of access to and quality of secondary education is associated with increased economic growth. Barro (1999) analyzed a panel of about 100 countries between 1960-1995 to understand the factors influencing economic growth and found that economic growth is positively related to the (1960) starting level of average years of adult male school attainment at secondary and higher levels but is insignificantly related to years of primary attainment. Secondary education completion rate was also found to be strongly correlated with a country's ability to absorb technology and knowledge spillover through increases in factor productivity, which is increasingly seen a driver for growth in today's globalized world.

3. Apart from economic benefits, secondary education has several benefits at the societal level as well. Completion of secondary education is shown to be strongly related to better health outcomes for mothers and children, reduced fertility rate, reduced risk and increased awareness of HIV/AIDS and increased civic awareness and participation. The sector assumes greater importance in developing country contexts, where both supply side and demand side barriers to educational attainment prevent households from enrolling, transitioning and completing senior secondary education. Supply side barriers, primarily access and quality, are a major issue in the Liberian context, where 25 districts currently don't have a senior high school and pass rates on the summative examination are poor. On the other hand, demand side barriers such as high levels of poverty, food insecurity, parental pressures and perceptions, early marriage and pregnancy among girls and violence (corporal punishment and sexual violence against girls) also prevent individuals from completing high school.

B. Expected development impact and cost-benefit and fiscal impact analysis

3. To calculate the economic impact of the project, projected benefits were compared to the budgeted costs. The present value of both costs and benefits was calculated and the costs were deducted from the benefits to calculate the Net Present Value (NPV) of the project. The expected flow of anticipated expenditures and returns related to the Project were also analyzed to calculate the Internal Rate of Return (IRR). The economic analysis yielded an NPV of US\$101 million and an IRR of 20 percent, indicating that the project is economically justified. The costs and benefits are detailed below, followed by a sensitivity analysis to test the robustness of the result.

4. Project benefits have been calculated in two parts: (i) benefits to senior secondary students currently in school, resulting from improved quality of senior secondary education; (ii) benefits to new entrants at the senior secondary level, resulting from increased access to as well as improved quality of senior secondary education.

5. The economic benefits are derived from the incremental economic benefit beneficiaries can expect



to accrue because of the project. This entails estimating the number of beneficiaries, the impact of proposed interventions on learning outcomes, the estimated impact of increased learning outcomes on income as well as the rate of return to completing SSS. Given the limited availability of data, it is difficult to produce precise benefits, especially economic benefits resulting from improved learning outcomes. Benefits presented in this section have therefore, been calculated using the returns to schooling estimates, derived from an earnings model based on Liberia's Household Income and Expenditure Survey, 2016. Global academic literature was also used to estimate the economic returns to improved learning outcomes.

6. Senior secondary students already in school, will benefit from capacity building interventions expected to improve learning outcomes on WASSCE. The project will finance several activities aimed at improving the quality of senior secondary education, including teacher education and development, specifically, pre-service teacher education reform, in-service teacher training and licensing, subject specific content and pedagogical training aimed at improving results on WASSCE and teacher workforce management. The project will also fill in gaps in access to learning materials by providing textbooks to all public senior secondary students, as well uploading soft copies of the books online and on a textbook app. School rehabilitation and renovation grants are also expected to improve the learning environment at the school level and as a result improve student attendance. Further, students in SSSs will also be provided digital skills training, that would enable them to explore additional avenues for learning. All interventions together, are expected to increase learning outcomes on WASSCE.

7. Under the conservative assumption that the economic benefit of improved quality of education will only accrue to students completing SSS, the annual beneficiaries for such components will be students from public schools sitting for the WASSCE exam. There were 9,058 such students in 2015, according to Liberia's EMIS data. A literature review of global academic research was conducted to understand the economic return of improved test scores, in the absence of quality data at the country level. However, evidence is limited, and where exists, shows modest impact (between 1 percent – 3 percent) of test scores on earnings and employment. Considering this, a return of 2 percent (on income) was used in the analysis to calculate the economic benefit of improved quality of education.

8. Apart from quality interventions, the project will also finance access to senior secondary education. Under the project, three new SSSs will be constructed in overcrowded districts. Further, 25 JSS, in rural districts currently without any SSS, will be expanded to SSSs, to improve access to education. Benefits from these activities will accrue to new students completing senior secondary education, who would have otherwise dropped out after the completion of JSS. Per a student classroom ratio of 40: 1, the project will add 4,800 new senior secondary seats to the system, that is 1,600 new seats each at grade 10, 11 and 12. Assuming all 1,600 seats at grade 10 are occupied by new entrants by the end of the project in 2023, and using the overall secondary completion rate of 67 percent based on the 2014 Liberia EMIS data, it is estimated that an additional 1,072 students will complete senior secondary level of education from 2026 onwards, as a result of the project. Again, under the conservative assumption that economic benefits from increased years of schooling, only accrue to students who complete all three years of schooling, annual beneficiaries under access components will be the additional 1,072 students from public schools sitting for WASSCE. Apart from construction, the project will also increase access to senior secondary education to girls, through several interventions including financial scholarships, female guidance counselors and community engagement. Assuming that all girls who receive the scholarship, transition to tenth grade and the secondary education completion rate is the same for all students, it is estimated that an additional 670 girls will graduate from grade 12 from 2023 until 2026, as a result of the project.



9. Based on data from Household Income and Expenditure Survey (HIES) 2016, an individual at the senior secondary level will on average, earn 18 percent more than an individual at the junior secondary level of education. Further, given these students will also benefit from improved quality, the overall percentage increase in income is estimated at 20 percent.

10. In order to estimate costs for NPV and IRR calculations, the expected economic costs incurred as a result of project implementation are calculated cost streams. The costs are those associated with activities financed by the project as well as incremental costs incurred by the Government and the household, including salaries associated with recruiting new teachers, maintenance, repair and operational cost over the years, and opportunity cost of sending children to school and attending school regularly.

11. The inflation rate and discount rate are estimated to be 9 percent and 11 percent respectively, based on annual average consumer price inflation rate over 10 years, and the nominal interest rate in 2019. Benefits are limited to 25 years beyond the life of the Project. The results of the analysis are presented in the table below.

Table A.3.1: Analysis Findings – NPV and IRR

PV of benefits	US\$147,639,801
PV of costs	US\$46,207,357
NPV	US\$101,432,445
EIRR	20%

12. **Sensitivity analysis.** In order to ensure robustness of the results of the analysis, alternative scenarios were considered. The low case scenario assumes that the returns to enrolling and completing senior secondary level of education are 10 percent instead of 20 percent, and the high case scenario assumes that the returns are 25 percent. The results are presented below.

Table A.3.2: Analysis Scenarios

	Baseline scenario	Low case scenario	High case scenario
NPV	US\$101,432,445	US\$72,258,595	US\$116,019,369
IRR	20%	18%	21%

13. As can be seen from the table above, the NPV varies from US\$72 million to US\$116 million and the IRR varies from 18 percent to 21 percent, indicating that the overall results are robust, and that the project will produce strong economic returns, even in the case of relatively low returns to senior secondary education.

14. **Social benefits.** In addition to economic benefits, the proposed project is also expected to have several social benefits. First, improving access to and quality of secondary education is positively correlated to improved health outcomes, women empowerment and gender equality. Studies show that the impact on health and other indicators is stronger for those who complete secondary education, relative to primary education. Further, a well-educated and skilled labor force, can attract foreign capital and technology and lead to an increase in employment opportunities, thus reducing social conflict and unrest. Secondary education completion is also shown to have a statistically significant impact on newspaper readership, voter participation and civic activity thus contributing to strengthening democracy. In addition, the community



engagement mechanism which will be established as part of the project, will increase reporting mechanisms for issues identified at the school, district and county level that is the responsibility of the MoE to address such as GBV, teacher payroll issues and teacher codes of conduct. This will lead to safer schools and communities, as well as promote citizenship engagement.

15. **Financial analysis and sustainability.** In this section, we analyze Government’s national budget, in particular past trends and future projections pertaining to education expenditure, to understand the fiscal sustainability of the project, and to ensure continued impact. Financial analysis is crucial to anticipate potential challenges to implementation or results, and the capacity of the Government to finance any incremental expenditure that may arise during project implementation.

16. Overall, GoL’s national budget is projected to increase marginally from 2016/17 to 2020/21, with fluctuations in the in-between years, after having reduced by US\$95 million from 2015/16. The total government budget in 2016/17 was about US\$528 million and it is projected to increase to about US\$531 million in 2020/21. Overall, education sector spending is expected to hover around 14 percent to 15 percent of the national budget, between 2016/17 to 2020/21, with little variation in allocation. The table below shows the year on year projected trend in expenditures.

Table A.3.3 : Education expenditures, actual and projections in US Dollars (2015/16 – 2020/21)

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Education budget	83,832,003	76,339,550	72,109,466	85,362,696	77,649,003	76,094,897
National budget	622,743,420	528,332,160	473,794,871	570,148,000	515,145,214	531,285,645
% of budget	13.5%	14%	15%	15%	15%	14%

Source: Government national budget 2018/19.

17. The share of MoE in the total education budget is projected by MFDP as equivalent to 55 percent until 2020/21. The rest of the budget is allocated to MCSS, higher education institutions, three RTTIs, TVET colleges and institutions and WAEC. Table A.4.4 below shows the split, over the years.

**Table A.3.4: Education sub-sector allocations, actual and projections in US Dollars (2016/17 – 2020/21)**

	2016/17	2017/18	2018/19	2019/20	2020/21	Share
MoE	38,871,193	40,180,316	46,367,943	43,751,391	44,901,240	55%
MCSSs	3,018,417	3,840,396	3,733,842	3,683,452	3,651,226	5%
Higher Education	27,434,601	21,041,352	27,487,748	23,432,913	21,038,214	31%
Teacher Training RTTIs	2,502,098	2,356,771	2,350,035	2,152,432	2,133,257	3%
TVET	2,411,080	2,049,230	2,079,773	1,894,556	1,776,105	3%
WAEC	2,102,161	2,641,401	3,343,355	2,734,259	2,594,855	3%
Grand Total	76,339,550	72,109,466	85,362,696	77,649,003	76,094,897	100%

Source: GoL national budget 2018/2019a.

18. Within the MoE budget, recurrent expenditures, in particular administration and management, absorb majority of the resources. Salaries of teachers and education staff, within administration and management, take over 78 percent of the budget, while secondary education accounts for 3 percent of MoE's budget. The structure and trend of the education budget indicate continued exposure to risks. As can be seen from the tables above, the education budget is projected to increase only marginally, over the next years, with considerable annual fluctuations. Further, the overall national budget will mostly remain constant, and from 2016/17 – 2020/21 and is not projected to reach the higher spending amount in 2015/16. These trends and projections indicate that the Government may have limited capacity to support any unforeseen capital expenditure during project implementation and recurrent expenditures resulting from project activities in the future.

19. With respect to sustainability, the incremental public recurrent costs associated with the project are teacher and education staff salaries for the additional classrooms, female guidance counselor and computer technician salaries, operational and maintenance costs for the schools and mobile and school-based computer labs, regular in-service training costs (estimated at 4 percent of the total project cost annually) as well as girls' education scholarships. School staff salaries, including teacher salaries, can be accommodated within existing budget forecasts and within the fiscal space created by transitioning staff on the CSA-MoE employee payroll registry onto pension scheme who have reached the mandatory retirement age of 65 as defined in the law. The MoE has also indicated commitment to these expenditures. On the other hand, given the limited fiscal capacity of the government, there is a risk that some of these interventions, in particular scholarships, may not be financed in the future. However, in light of the urgent need to relieve demand side barriers in the short-run, a strong case can be built in favor of providing scholarships during the life of the project, even when they may not be carried forward after the end of the project. However, the project will assess the effectiveness of these interventions to help garner support both from the Government and other DPs moving forward.

C. Valued-Added of the World Bank's Support

20. The World Bank's value-added lies in its global expertise in the sector, acquired by supporting governments to increase access and improve the quality of secondary education. The World Bank has worked



closely with a number of governments to design and implement secondary education projects (in Ghana, Bangladesh and Nepal, among others). The World Bank is thus well placed to support the Government in addressing challenges facing the secondary education sub-sector. The World Bank has also developed a strong partnership with the Government in the education sector and has provided strategic leadership to the Government in its efforts to increase access, improve quality and promote good governance in the education sector. In addition to the growing World Bank portfolio in Liberia, the World Bank has been the Grant Agent for two GPE-funded projects in Liberia (including the ongoing G2B Project), allowing it to further develop its understanding of the specific needs and challenges faced by Liberia's education sector and the implementation environment including institutional strengths and weaknesses.