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IDA/R2018-0124/1

May 11, 2018

**Closing Date: Thursday, May 31, 2018
at 6:00 p.m.**

FROM: The Acting Vice President and Corporate Secretary

Senegal - Quality Improvement and Equity of Basic Education Project

Additional Financing

Project Paper

Attached is the Project Paper regarding a proposed additional credit to Senegal for a Quality Improvement and Equity of Basic Education Project (IDA/R2018-0124), which is being processed on an absence-of-objection basis.

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Report No: PAD2608

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT PAPER

ON A

PROPOSED ADDITIONAL CREDIT

IN THE AMOUNT OF EURO 48.7 MILLION
(US\$60 MILLION EQUIVALENT)

TO THE

REPUBLIC OF SENEGAL

FOR A

QUALITY IMPROVEMENT AND EQUITY OF BASIC EDUCATION PROJECT

MAY 9, 2018

Education
AFRICA

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CURRENCY EQUIVALENTS

Exchange Rate Effective March 31, 2018

Currency Unit = Euro
Euro 0.81126029 = US\$1

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

BFEM	Seconadary School Completion Examination (<i>brevet de Fin d'Etudes de l'Enseignement moyen</i>)
BAC	Baccalaureate
BST	Science and Technology Block (<i>bloc scientifique et technologique</i>)
CFEE	Elementary School Completion Certificate (<i>Certificat de Fin d'Etudes de l'Elémentaire</i>)
CIDA	Canadian International Development Agency
COFC	<i>Chargé des Operations Financières et Comptables</i> (Manager for finance and accounting)
CRFPE	Regional Center for Training of Education Staff (<i>Centre régional de formation du personnel de l'éducation</i>)
DA	Designated Account
DAGE	Directorate of Administration and Management (<i>Direction de l'Administration Générale et de l'Équipement</i>)
DCS	Directorate of School Construction (<i>Direction des Constructions Scolaires</i>)
DEE	Directorate of Elementary Education (<i>Direction de l'Enseignement Elémentaire</i>)
DEMSG	Directorate of Middle and General Secondary Education (<i>Direction de l'Enseignement Moyen et Secondaire Général</i>)
DI	Investment Directorate (<i>Direction de l'Investissement</i>)
DLI	Disbursement Linked Indicator
DLP	Digital Literacy Program
DPRE	Directorate of Planning and Education Reform (<i>Direction de la Planification et de la Réforme de l'Education</i>)
EFA-FTI	Education for All – Fast Track Initiative
ESMF	Environmental and Social Management Framework
FM	Financial Management
GDP	Gross Domestic Product
GER	Gross Enrollment Rate
GPE	Global Partnership for Education
GPN	General Procurement Notice
IA	Education structure at regional level (<i>Inspection d'Académie</i>)
IDA	International Development Association

ICT	Information and Communication Technology
IEF	Education structure at district level (<i>Inspection de l'éducation nationale et de la formation</i>) :
IFR	Interim Financial Report
INEADE	National Research Institute for Education (<i>Institut National d'Etudes et d'Action pour le Développement de l'Education</i>)
JICA	Japan International Cooperation Agency
M&E	Monitoring and Evaluation
MoE	Ministry of Education (<i>Ministère de l'Education Nationale</i>)
PforR	Program for Results
PAD	Project Appraisal Document
PAQUET	Program for Quality, Equity, and Transparency Improvement in Education (<i>Programme d'Amélioration de la Qualité, de l'équité et de la transparence dans l'éducation</i>)
PASEC	Program for the Analysis of Education Systems (<i>Programme d'Analyse des Systèmes Éducatifs des pays membres de la CONFEMEN</i>)
PBC	Performance-based contract
PDEF	Senegal's Ten-year Education Sector Program (<i>Programme décennal de l'Education et de la Formation</i>)
QEFA	Quality Education For All
QIA	Quality Improvement Agreement
RPF	Resettlement Policy Framework
SBM	School-based management
SDI	Service Delivery Indicator
SMC	School management committee
SPN	Specific Procurement Notices
SSA	Sub-Saharan Africa
TA	Technical Assistance
TF	Trust Fund
TOR	Terms of Reference
TPV	Third Party Verification
UNDB	United Nations Development Business

Regional Vice President:	Makhtar Diop
Country Director:	Louise J. Cord
Senior Global Practice Director:	Jaime Saavedra Chanduvi
Practice Manager/Manager:	Meskerem Mulatu
Task Team Leader:	Hamoud Abdel Wedoud Kamil

SENEGAL
QUALITY IMPROVEMENT AND EQUITY OF BASIC EDUCATION PROJECT
ADDITIONAL FINANCING

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ADDITIONAL FINANCING DATA SHEET

Senegal

Senegal-Quality Improvement and Equity of Basic Education - AF (P163575)

AFRICA

GED07

Basic Information – Parent							
Parent Project ID: P133333				Original EA Category: B - Partial Assessment			
Current Closing Date: 31-May-2018							
Basic Information – Additional Financing (AF)							
Project ID: P163575				Additional Financing Type (from AUS): Restructuring, Scale Up			
Regional Vice President: Makhtar Diop				Proposed EA Category: Category B			
Country Director: Louise J. Cord				Expected Effectiveness Date: 30-Sep-2018			
Senior Global Practice Director: Jaime Saavedra Chanduvi				Expected Closing Date: 30-Dec-2021			
Practice Manager/Manager: Meskerem Mulatu				Report No: PAD2608			
Team Leader(s): Hamoud Abdel Wedoud Kamil							
Borrower							
Organization Name		Contact		Title		Telephone	
Ministry of Economy and Finance		LAT DIOP		Director of Cooperation and External Financing		+221 82 103 78	
						latdiop@hotmail.com	
Project Financing Data - Parent (Senegal Quality and Equity of Basic Education-P133333) (in USD Million)							
Key Dates							
Project	Ln/Cr/TF	Status	Approval Date	Signing Date	Effectiveness Date	Original Closing Date	Revised Closing Date
P133333	IDA-52750	Effective	13-Jun-2013	22-Nov-2013	10-Feb-2014	31-Jan-2018	01-Oct-2018
P133333	TF-15232	Effective	22-Nov-2013	22-Nov-2013	10-Feb-2014	31-May-2017	31-May-2018
P133333	TF-15285	Closed	22-Nov-2013	22-Nov-2013	10-Feb-2014	30-Oct-2015	30-Sep-2017

P133333	TF-15311	Closed	22-Nov-2013	22-Nov-2013	10-Feb-2014	23-Aug-2017	23-Aug-2017		
Disbursements									
Project	Ln/Cr/TF	Status	Currency	Original	Revised	Cancelled	Disburse d	Undisbu rsed	% Disburse d
P133333	IDA-52750	Effective	USD	20.00	20.00	0.00	19.11	0.07	95.56
P133333	TF-15232	Effective	USD	6.90	6.90	0.00	6.66	0.24	96.56
P133333	TF-15285	Closed	USD	40.00	40.00	0.00	39.66	0.34	99.15
P133333	TF-15311	Closed	USD	2.24	2.24	0.00	1.85	0.53	82.90
Project Financing Data - Additional Financing Senegal-Quality Improvement and Equity of Basic Education - AF (P163575)(in USD Million)									
[] Loan [] Grant [] IDA Grant									
[X] Credit [] Guarantee [] Other									
Total Project Cost:		60.00		Total Bank Financing:		60.00			
Financing Gap:		0.00							
Financing Source – Additional Financing (AF)								Amount	
International Development Association (IDA)								60.00	
Total								60.00	
Policy Waivers									
Does the project depart from the CAS in content or in other significant respects?							No		
Explanation									
Does the project require any policy waiver(s)?							No		
Explanation									
Team Composition									
Bank Staff									
Name		Role		Title		Specialization		Unit	
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Mamata Tiendrebeogo		Procurement Specialist (ADM Responsible)		Senior Procurement Specialist		Procurement		GGOPF	

Fatou Fall Samba	Financial Management Specialist	Sr Financial Management Specialist	Financial Management	GGOAW	
Alison Marie Grimsland	Team Member	Education Spec.	Education	GED07	
Mame Safietou Djamil Gueye	Social Safeguards Specialist	Senior Social Development Specialist	Social Safeguards	GSU01	
Khady Fall Lo	Team Member	Program Assistant	Operations	AFCF1	
Medou Lo	Environmental Safeguards Specialist	Environmental Specialist	Environmental Safeguards	GEN07	
Mouhamadou Moustapha Lo	Team Member	Education Spec.	Education	GED07	
Pamela Mulet	Team Member	Education Spec.	Education	GED07	
Sophie Naudeau	Team Member	Program Leader	Human Development	AFCF1	
Mamadou Mansour Mbaye	Team Member	Consultant	Procurement	GGOPZ	
Yan Sun	Economic Analysis	Economist	Economist	GED07	
Extended Team					
Name		Title	Location		
Locations					
Country	First Administrative Division	Location	Planned	Actual	Comments
Senegal		Ziguinchor			
Senegal		Thiés			
Senegal		Tambacounda			
Senegal		Sedhiou			
Senegal		Saint-Louis			
Senegal		Matam			
Senegal		Louga			
Senegal		Kolda			
Senegal		Kedougou			
Senegal		Kaolack			
Senegal		Kaffrine			

Senegal		Fatick			
Senegal		Diourbel			
Senegal		Dakar			
Institutional Data					
Parent (Senegal Quality and Equity of Basic Education-P133333)					
Practice Area (Lead)					
Education					
Contributing Practice Areas					
Additional Financing Senegal-Quality Improvement and Equity of Basic Education - AF (P163575)					
Practice Area (Lead)					
Education					
Contributing Practice Areas					
Consultants (Will be disclosed in the Monthly Operational Summary)					
Consultants Required? Consulting services to be determined					

I. Introduction

1. This Project Paper seeks the approval of the Executive Directors to provide an additional International Development Association (IDA) credit in the amount of Euro 48.7 million (US\$60 million equivalent) to the Republic of Senegal for the Quality Improvement and Equity of Basic Education Project. The project development objective (PDO), to improve learning outcomes for early grades, increase access to the science and mathematics tracks of secondary schools, and to improve equity in access to basic education, will remain unchanged. The proposed additional financing (AF) (P163575) will finance: (i) scale up of activities supported under the original financing, including the use of performance-based contracts (PBCs) to drive results, and quality improvement measures; (ii) introduction of two *Lycée d'excellence pour l'Intégration, Équité, et la Qualité* (LINEQs - High Schools of Excellence for Integration, Equity and Quality) focused on science and mathematics to further expand the measures for strengthening equitable and quality science and mathematics learning under the original financing; and (iii) a number of pilot activities, including an accelerated catch-up program for young school-aged children (8-14 years) who have never entered school or dropped out, community engagement tools including a small adult literacy initiative for school community members, and expanded use of information and communication technology (ICT), including as part of in-service teacher training and the teaching of science and mathematics in the classroom. The AF will also include a restructuring of the original project to: (i) extend the closing date of the original project to December 30, 2021 so that it is aligned with the AF; and (ii) make the associated changes (scale up, and extension of the end target dates) to the results framework, as well as the introduction of a limited number of indicators to reflect the expanded scope of the project.

2. By building upon and improving the previous successes, it is expected that the project will benefit an additional 586,000 beneficiaries for a total of approximately 2,500,000 beneficiaries over the life of the project; train more than 25,000 teachers, scale up the initiative to teach reading and numeracy in 500 Koranic schools (daaras); increase the number of schools implementing the revised science and math program by 600, including utilizing technology-enabled science and math teaching; and integrate an estimated 15,000 out-of-school students back into the school system. At the same time, engagement and capacity building of communities and key stakeholders, including unions, is built into the project to strengthen its development impact.

II. Background and Rationale for Additional Financing in the amount of US\$60 million.

3. **Senegal, with an estimated population of 15 million¹, is one of the most politically stable countries in Africa, and has considerably strengthened its democratic structures in recent years.** Data from a variety of sources suggest that Senegal has considerable growth potential but also confronts many constraints and challenges as it prepares to transition from a predominately factor-based economy, to a knowledge-driven economy. Notwithstanding its tremendous assets, historically Senegal has experienced lower economic growth than most other countries in Sub-Saharan Africa (SSA). Real gross domestic product (GDP) per capita has only increased by 17 percent in Senegal since 1990, against 45 percent on average in SSA.

¹ Latest National Census estimated in 2013 the population around 13 million with an annual average rate of progression of 2.5 percent, thus the estimated population to date is around 15 million.

4. **Poverty rates in Senegal are high.** With a per capita GNI of US\$1,025 in 2015, Senegal is classified by the World Bank as a low-income country. Due to relatively poor economic growth and high population growth (at about 2.8 percent annually from 1990-2015), monetary poverty in Senegal affects nearly 50 percent of its population. According to the latest official national poverty survey (ESPSII, 2011), monetary poverty affected 46.7 percent² of the population in 2011, while extreme poverty stood at 14 percent. Poverty in Senegal principally affects households that are large, lack education, and engage in rain-fed agriculture or informal services.

Sector Context

5. **The Government of Senegal is implementing its ten-year education sector development program, the Program for Quality, Equity, and Transparency Improvement in Education and TVET** (*Programme d'Amélioration de la Qualité de l'Équité et de la Transparence dans l'éducation et la formation* - PAQUET 2013-2025), which succeeded the country's previous ten-year plan (*Programme décennal de l'Éducation et de la Formation* – PDEF). The PAQUET was designed based on a sector-wide approach combining investment planning and recurrent spending as well as policy reforms to achieve the government's education policy goals including reaching the relevant Sustainable Development Goals (SDGs). The government, through its Development Policy Documents for the Education Sector (2013-2025), has clarified its strategic priorities in terms of education and training, which include (i) improving the learning environment and opportunities for schooling, especially for marginalized groups and out of school children and youth; (ii) improving teaching and learning quality by reforming teacher training, and reinforcing the curricula for primary and middle school; and (iii) further developing the quality assurance system and on-going monitoring and evaluation (M&E) of inputs, processes, performance and learning impact at all levels.

6. **Key reforms around sector management and decentralization of the system are at the heart of the strategy.** The government has made tremendous efforts toward decentralization of school and sector management. Decentralized management at regional, district and school levels, and close engagement with communities, including the recruitment and training of teachers and financial management of resources at the school level, have been a key step toward improved performance in schools. Regular learning assessments over the past decade; revised pre-service teacher training, certification and teaching standards; and the implementation of a ten-year compulsory basic education program, are additional important initiatives that the sector strategy builds upon. The strategy was developed to transition the sector from an input-based system (e.g. books, classes, desks, blackboard) to a results-oriented management system, which focuses on improved learning outcomes, school performance, and equitable access for poor children in underserved regions. The current and additional financing directly support this goal.

7. **Despite these key reforms, and ongoing large-scale initiatives, the following central challenges remain, and are the key focus of the original financing and additional financing:**

- (i) Large numbers of out-of-school children. Currently, 37 percent of Senegal's 6-16 year-olds are out of school³, due to a combination of economic and socio-cultural factors. They are

² Recent work allowed correcting a few coding inaccuracy, leading to the revision of the poverty rate to 47.3 percent. For convenience purposes and considering the small decimal change, the authors use the official rates in this document.

³ Latest recent Study conducted by USAID on Out-of-School Children published on June 2017. (in French : *Étude nationale sur les enfants et les jeunes hors du système éducatif au Sénégal*)

mainly concentrated in traditional communities in five regions: Diourbel, Kaffrine, Louga, Matam, and Tambacounda. Furthermore, there is a dearth of “second chance” programs and adult literacy opportunities despite promising pilots in the past.

- (ii) Persistence of low learning levels. While Senegal outperformed most participating countries on the Program for the Analysis of Education Systems (PASEC - *Programme d'Analyse des Systèmes Éducatifs des pays membres de la CONFEMEN*) 2014 results reveal that the vast majority of children in Senegal are not completing primary education with sufficient competency in mathematics and reading. In fact, only an estimated 32 percent of children are completing primary having reached the minimum acceptable levels in these areas.
- (iii) Weak science and math learning. Overall mastery of science and math subjects is low. These subjects remain an elite domain, enrolling less than 35 percent of middle school students. Further, girls are less likely to enroll in these subjects: currently 24.3 percent of girls enroll in the science series compared to 30.7 percent of boys. This means the stock of graduates with sufficient knowledge in science and mathematics is perpetually low.
- (iv) The quality of teaching needs to be improved. Although much has been done to improve pre-service teacher training, and greatly improve qualifications of teachers, the quality of in-service teacher training is inadequate and the feedback mechanism for teachers is weak. Further, training of school directors, who are critical to school performance, is also limited. In addition, there is often little interactive learning in classrooms, and extremely limited use of technology, a potentially extremely valuable tool in promoting interaction in the classroom, diversifying learning approaches, and measuring student performance. Examples of ICT integration at the primary and secondary levels, when carefully coupled with improved pedagogy and training methods, have shown promising results that are of value in the Senegal context⁴.

Parent Project Background and Performance.

8. The original project was approved on June 13, 2013 and became effective on February 10, 2014. It has a current closing date of October 1, 2018, following a 6-month extension granted in April 2018. The project is financed by four separate sources totaling US\$69.7 million, including: an IDA credit of US\$20 million (IDA-52750); a Global Partnership for Education (GPE) grant of US\$46.9 million funded from two GPE sources (TF-15285 in the amount of US\$40 million which closed in September 2017, and TF-15232 in the amount of US\$6.9 million which will close on May 31, 2018); as well as the Education Sector Capacity Building TF Grant (TF-15311 for US\$2.8 million) from the Canadian International Development Agency (CIDA) which closed in August 2017. Overall disbursement for the project currently stands at 97 percent.

9. **The project development objective (PDO) is to improve learning outcomes for early grades, increase access to science and mathematics tracks for secondary schools, and to improve equity in access to basic education.** As mentioned above, the project was designed to support Senegal’s PAQUET (2013-2025), through three components: (1) improving the quality of basic education; (2) strengthening equity in access to education; and (3) supporting project management and capacity building.

⁴ Some promising examples include a Kenyan program that provided public school teachers with tablets to support instruction increased the reading performance of their students, as well as a computer-assisted learning program in Gujarat, India, which improved learning when it added to teaching and learning time, especially for the poorest-performing students (WDR 2018) (Knowledge MAPS: ICT in Education; INFODEV Publication; 2005) . The Khan academy, which focuses on “bite-sized” well formulated and approachable online lessons is another promising approach.

10. **The project seeks to improve learning outcomes and access by shifting the focus from inputs to results.** This is achieved through the strategic use of innovative PBCs, which utilize disbursement linked indicators (DLIs) to establish clear equity and quality indicators and targets by each level of management in the education sector. This approach is fully aligned with the government strategy for results, as outlined above. Prior to these reforms, the decision making and financial management were highly centralized, resulting in limited discretionary resources at the school level to fund quality improvement measures, creating greater inefficiencies and an overemphasis on inputs and outputs rather than results. With the use of PBCs, which necessitate clear roles and responsibilities, and achievable targets by level, not only is accountability strengthened throughout the management chain, but decision-making capacity is as well, given that monitoring and evaluation, financial management, and human resources responsibilities are built into the mechanism at each level. This is of critical importance at district and school level, where school directors and district leaders play a much more active role in developing and implementing context-specific school improvement strategies.

11. An example of this focus on results all along the chain of command is the introduction of PBCs, wherein a regional level authority may have a DLI linked to timely dissemination of national assessment test results, the district level authority may then have a DLI tied to ensuring that school directors receive feedback on how to utilize test results, and the school may have a DLI linked to adapting their school based improvement plans based on the testing outcomes by, for example, including provisions for specialized math teacher training, or remedial sessions, to address low mathematics outcomes. In this way strategic use of test results to inform school improvement plans is systematic and requires accountability and participation at all levels. Currently, PBCs are being effectively implemented in the original project between the regional authorities and district authorities, and between the district authorities and schools, including in Koranic schools (daaras). In this next iteration, they will be introduced between the ministry and the regional level, as well as with the science and technology blocks (BST, *bloc scientifique et technologique*), so that at each level there are clear annual improvement plans that guide key results. This approach also champions community participation, as school management committees play a key role in the development of school action plans, which form the basis of school budgets.

12. **To date, five of the six PDO level indicators have been fully achieved and demonstrate clear learning gains, and improved access.** These include improvements in reading comprehension and mathematics in Grades 2 and 4, as well as significant increases in enrollments in targeted geographic regions. The specific achievements include:

- Percentage of Grade 2 and Grade 4 students who demonstrate their ability to read and comprehend grade-level text has reached 59.73 and 60.27 percent from baseline targets of 34.5 and 51.7 respectively, against end targets of 39 and 56 percent.
- Percentage of Grade 2 and Grade 4 students who demonstrate their ability to compute and solve grade-level math problems has reached 59.21 and 54.20 percent from baseline targets of 51.09 and 46.2 against end targets of 56 and 51 percent.
- Number of direct project beneficiaries has reached 1,913,975, exceeding the end target goal of 1,319,410;
- The system for learning assessment has been successfully established at the primary level and is being used to inform school improvement plans; and

- Number of non-repeater students enrolled in Grades 1 to 4 in five targeted geographic areas has reached 48,273 (against the target of 43,611); 83,579 (against the target of 81,172); 69,463 (against the target of 64,603); 89,992 (against the target of 83,034); and 106,706 (against the target of 86,103).

13. The only PDO indicator in which progress has been moderately slow, is the “percentage of middle school students enrolled in math and science tracks (S1, S2) at the secondary level,” which currently stands at 34.91 percent against an end target of 45 percent. Despite the tremendous efforts made by the government, the planned strategy to strengthen teaching in science has not yet been fully realized. The major constraints are related to: (i) weak mathematics teaching at the primary level; (ii) lack of tools and support for teaching mathematics at all levels; and (iii) the behavior of teachers in the Orientation Commission who are responsible for orienting students toward the Sciences Series (S). Typically, these teachers focus on a minority of high-performing students (mostly boys) who are particularly skilled in science and mathematics. This is also the case among teachers in the *seconde* class (grade 11) who are not trained to teach to students who have moderate skills in mathematics, and so focus the majority of their efforts toward advanced learners.

14. **Further, there is a dearth of strong examples of effective science- and mathematics-focused institutions, and sound pedagogical approaches, to drive results.** However, improvements are expected in the current academic year as the reforms are fully rolled out, and the pursuit of exemplary science- and mathematics-focused high schools via the proposed LINEQs will serve as testing grounds for best practices in teaching of these critical, and historically weak, subjects. Furthermore, the project has supported the preparation of a national strategy to enhance science and mathematics teaching and, in the additional financing, will further support the implementation of this holistic strategy through science- and math-focused teacher training using technology based methods, improved assessment and teaching materials, and the above-mentioned high schools.

Rationale for Additional Financing.

15. **The AF lays the groundwork for a potential Program for Results (PforR) operation in Fiscal Year 2020 that was developed in response to a specific government request to scale up activities under the original project and to pilot new ways to implement some existing activities to maximize results and sustainability.** As such, there is an emphasis on building upon the use of PBCs through the current DLI mechanism; scale up of successful initiatives under the original project (including teacher training, support to daaras, and strengthened mathematics and science initiatives); and introduction of a limited number of strategic pilot initiatives (including an accelerated learning program to integrate out of school students into the system) to further increase development impact.

16. The project design takes into account updated demographic data from the General Population Census of Senegal (RGPHAE) in 2013, as well as the ongoing effort to update the education sector strategy so that it is harmonized with the SDGs, Compulsory Ten years’ education, the Global Partnership for Education Action Plan (2016-2020), national consultations (*Assises nationales de l’éducation*) and with the eleven Presidential directives on basic education and higher education. By focusing on underserved areas, the project will support the World Bank Group’s twin goals of eradicating extreme poverty and promoting shared prosperity promoting inclusive growth and eradicating extreme poverty. Furthermore, consultations undertaken with union leaders and civil society (including extensive work with religious

communities) also contributed to strengthened initiatives in integrating marginalized and excluded populations.

17. The proposed additional financing is fully aligned with the existing Country Partnership Strategy (CPS) for Senegal (2013-2017), as well as the current Systematic Country Diagnostic (SCD) which will inform the forthcoming Country Partnership Framework (CPF). Under the current CPS it supports Pillar 1 – accelerating inclusive growth and creating employment, as well as Pillar 2 – improving service delivery – through sustainable improvements to human capital development as well as strategic system wide changes to education management. Importantly, the operation also addresses several binding constraints identified in the SCD. The SCD identifies participation of the poor in labor markets, skills and youth employment, human capital development, and social inclusion as key levers for building human capital throughout the lifecycle. The additional financing, which seeks to expand equitable access and inclusion in schools, as well as improved relevance and quality of teaching and learning directly contributes to improved human capital development which will be a core focus of the upcoming CPF.

18. The requirements to process an AF have been met, namely: (a) implementation progress and development objectives have been consistently rated as Moderately Satisfactory or better for over the last 12 months; (b) all legal covenants have been complied with; (c) there are no outstanding audit reports; and, (d) the project will follow the World Bank’s ‘Guidelines: Procurement of Goods, Works, and non-Consulting Services Under IBRD Loans and IDA Credits & Grants by World Bank Borrowers’ and ‘Guidelines: Selection and Employment of Consultants Under IBRD Loans and IDA Credits & Grants by World Bank Borrowers’ both dated January 2011 (Revised July 2014), as well as the World Bank’s guideline on Anti-corruption ‘Guidelines on Preventing and 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 in July, 2016.

Theory of Change and Lessons Learned

19. Systemic changes to the education sector, which are labor intensive and require sustained effort to drive results, are at the core of Senegal’s education sector strategy and the World Bank financing which has accompanied it. The aim is to make long lasting system wide changes, rather than boutique investments which address a symptom but not its root cause. The PBCs operate on this model. They are built around carefully selected easy to understand targets, focused on equity and quality, however what makes the approach ambitious is that they are implemented at each level, thus incentivizing accountability of each stakeholder in the system from the ministerial level to regional, district, and school levels. The implementation of the PBC approach has resulted in establishment and utilization of learning assessments, improved financial management at the school level, and system wide improvements to teacher management, in addition to critical learning and access outcomes mentioned above. At the same time, the training of school directors, remains critically important and is an area for further development. While training on school management was successfully rolled out in the current project, additional training which equips directors to adequately assess school performance, provide feedback to teachers in the capacity as instructional leaders, and assess professional development needs is critical.

20. Capacity building and community involvement is critical. With this approach comes the need for capacity building which has been a central activity in the project, and key to making the reforms sustainable. To be successful, this decentralized approach necessitates education organizing at the

community level, particularly with marginalized groups. This participatory design is key to engaging vulnerable children and parents, and is built into the program through the substantial work integrating foundational skills into Koranic schools by working closely with religious leaders and their communities, and heavy emphasis on participatory school based management committees and their empowerment.

21. **The premise is that systemic changes are necessary to orient the sector around results (behavior change) rather than simple inputs (e.g. textbooks, infrastructure investments).** At the same time, in addition to improved service delivery, the central premise is that the key to learning is (i) ensuring that children have access to learning institutions and (ii) ensuring that they are exposed to effective teaching once they are there. Given that nearly 38 percent of children aged 7-12 remain out of school, and that teachers have been shown to make the single biggest difference on learning outcomes for children once they are in school, the investments under the additional financing are focused on these aspects, and build on the previous successes in these areas.

22. **A “multiple pathways approach” is used to reach out of school children.** The education system in Senegal is complex, with vast networks of public schools, faith-based and religious schools, and private schools of various types. There are gaps in learning to various degrees in each type of institution, making improvements to quality particularly daunting. The challenge has been how to ensure that all children are receiving foundational skills in reading and mathematics regardless of the institution. As such, the project has championed a multiple pathways approach which engages with daaras, through the use of PBCs to ensure that children, many of whom would not receive any formal education otherwise, are receiving math and reading lessons. The program has successfully reached over 14,000 children, but there is a need to expand the efforts, and to ensure that monitoring and evaluation efforts are further strengthened. In this next phase an accelerated catch up program will also be launched to serve as a pathway for children without formal education to enter into the system so that there are not only more educational opportunities, but also more lateral integration between institution types.

23. **Supporting teachers has been critical to improved learning.** The project builds on system-wide improvements to teacher management including putting in place a computerized system for transparent staff management, increasing entry qualifications to the Baccalaureate (BAC) level, hiring at the regional level, and revising preservice training and certification standards. With this strong base, the additional financing will continue to invest in teachers, many of whom need further support to be effective in classrooms. Systematic in-service teacher training is necessary to ensure teachers are learning interactive approaches to teaching, and provided with regular support and feedback to continuously improve upon their pedagogical approaches. High quality digital lessons and tools which aid in interactive teaching will support this approach. At the same time, investment in a classroom observation tool and its use will be financed.

24. **More needs to be done to ensure girls equally benefit from the expanded educational opportunities.** Girls are more likely than boys to leave the education system or never attend, and are less likely to enroll in science and mathematics series once in the system. For example, as stated above, analysis conducted during the original project finds that girls represent only 24.3 percent of students enrolled in science and mathematics tracks, against 30.7 percent of boys. Girls tend to be heavily skewed toward enrollment in the humanities/literature series, reaching as high nearly 79 percent enrollment. However, at the same time, we find that returns to girls’ education increase as girls continue through the system. For example, the rate of return is 97 percent for women with upper secondary education while it

is 83 percent for men with the same level of education. Given the critical importance of the improved science and mathematics stream in Senegal, the aim is to improve the enrollment and completion of girls' in these streams through project interventions. This will be done through awareness campaigns, teacher training to support orienting girls into science and mathematics tracks, and targeting of girls through PBCs particularly within the BSTs which focus on science and technology. Furthermore, the two model high schools focused on science and mathematics that will be created will target girls' enrollment and has a target of 50 percent. Women also play a particularly critical role in school management committees in Senegal, representing nearly 70 percent of all school management committee membership. Despite high rates of illiteracy among this population, women's participation in school management committees has been robust and plays a critical role in community ownership of schools. To further build upon this momentum, and enhance the depth of community participation, the project will pilot a small literacy program, targeting female school management committee members.

III. Proposed Changes

Summary of Proposed Changes

The changes are focused around the following:

System Strengthening and Decentralization. Building upon the successes of the original project, the AF will (i) refine the PBCs at school, and district level, including developing clearer outcomes and targets, which form the basis of the DLIs; (ii) introduce PBCs between the regional and national levels, and within the BSTs to improve accountability; and, (iii) improve upon the M&E system at school level to improve the feedback loop for continued school improvement. At the same time, the school based management initiatives centered around capacity building will be scaled up to empower school management committees. This includes making trainings and materials accessible in local languages, and offering literacy training to drive participation.

Quality Improvement. The largest proportion of financing is focused on quality improvements, especially improvements in mathematics and sciences teaching and learning. This will be done through introduction of improved in-service training for teachers and school directors, including special emphasis on teaching mathematics and sciences; providing an additional 300 schools with grants to implement the reformed program on science and mathematics; development of two specialized high schools (LINEQs) to serve as exemplary schools at the secondary level that champion science and mathematics learning, and introduction and implementation of more technology based teaching methods in the classroom.

Scaling up Access. The daara improvement program under the original project, in which daaras receive funds through the PBC mechanism on the condition that they provide foundational skills (reading and numeracy) to students, will be scaled up from 100 daaras to 500 daaras under the AF. In parallel, given the large number of students still outside of the education system, an accelerated "catch up" program for students who enter the conventional system late will be piloted. The AF will further support quality improvement and inclusion measures, including through support to the existing sports competition program as a part of activities to build citizenship and move beyond purely cognitive skills to include critical non-cognitive skills, and development of the "whole child."

Additional Changes. Given the additional funding, the IDA will be extended from October 1, 2018 to December 2021, while the GPE grant will close as scheduled in May 2018. The results framework will be adjusted to show the scale up of current activities and the introduction of new activities as described fully

under the results section, and the disbursement schedule will be adjusted to reflect the project extension and additional funding.

Change in Implementing Agency	Yes [] No [X]
Change in Project's Development Objectives	Yes [] No [X]
Change in Results Framework	Yes [X] No []
Change in Safeguard Policies Triggered	Yes [] No [X]
Change of EA category	Yes [] No [X]
Other Changes to Safeguards	Yes [] No [X]
Change in Legal Covenants	Yes [] No [X]
Change in Loan Closing Date(s)	Yes [X] No []
Cancellations Proposed	Yes [] No [X]
Change in Disbursement Arrangements	Yes [] No [X]
Reallocation between Disbursement Categories	Yes [] No [X]
Change in Disbursement Estimates	Yes [X] No []
Change to Components and Cost	Yes [X] No []
Change in Institutional Arrangements	Yes [] No [X]
Change in Financial Management	Yes [] No [X]
Change in Procurement	Yes [] No [X]
Change in Implementation Schedule	Yes [] No [X]
Other Change(s)	Yes [] No [X]

Development Objective/Results

Project's Development Objectives

Original PDO

The project development objective is to improve learning outcomes for early grades, increase access to the science and mathematics tracks for secondary schools, and to improve equity in access to basic education.

Change in Results Framework

Explanation:

The updated results framework reflects the scale up and expanded scope of the additional financing. The following changes have been made:

At the PDO level: A measure of reading comprehension of grade 1 students will be added to reflect the quality improvements through at the school level, and renewed emphasis on teacher training and average success rate on the secondary school completion examination (BFEM, *brevet de Fin d'Etudes de l'Enseignement moyen*). The PDO-level indicator which monitors progress towards enrolling more students in mathematics and sciences series (S1, S2) at the secondary level will also be disaggregated to closely track enrollment of girls in these tracks. Lastly, the total number of beneficiaries has also been scaled up to reflect the additional students who will benefit, for a sum of more than 2,500,000 beneficiaries.

At the intermediate level: six intermediate level indicators have been added to take into account the additional activities. The indicators include: (i) teachers trained in-service; (ii) percentage of school heads trained; (iii) number of school community members trained using the revised materials in local languages; (iv) number of out of school students (age 8-14) re-integrated into the system; (v) number of daaras with a PBC based on their Equity Improvement Plan (EIP); and (vi) percentage of BST that have achieved the 80 percent of the agreed targets in their PBCs.

The annual/end of project target dates. The end target date for each of the indicators was extended to reflect the new closing date. Several of the project activities have already been fully achieved (in cases such as civil works, or process indicators) however the end targets have all been extended to ensure clear M&E of all indicators from the original financing through the additional financing. Where possible the end targets have been revised upward to reflect the scale up.

Compliance

Covenants - Additional Financing (Senegal-Quality Improvement and Equity of Basic Education - AF - P163575)

Source of Funds	Finance Agreement Reference	Description of Covenants	Date Due	Recurrent	Frequency	Action
IDA	Updating of Procedures Manual	The Recipient shall, not later than three (3) months after the Project Effective Date, revise and update, in accordance with terms of reference acceptable to the Association, the procedures manual	September 30, 2018	<input type="checkbox"/>		New

Conditions

Source Of Fund	Name	Type
Description of Condition		

Risk

Risk Category	Rating (H, S, M, L)
1. Political and Governance	Moderate
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Moderate

4. Technical Design of Project or Program							Substantial	
5. Institutional Capacity for Implementation and Sustainability							Substantial	
6. Fiduciary							Moderate	
7. Environment and Social							Low	
8. Stakeholders							Moderate	
9. Other								
OVERALL							Moderate	
Finance								
Loan Closing Date - Additional Financing (Senegal-Quality Improvement and Equity of Basic Education - AF - P163575)								
Source of Funds					Proposed Additional Financing Loan Closing Date			
IDA Grant					30 December, 2021			
Change in Disbursement Estimates (including all sources of Financing)								
Explanation:								
The updated disbursement table reflect the remaining funds in the current project and the additional US\$60 million. This includes the funds disbursed to date and all sources of financing from effectiveness of the original project, through the revised project closing date.								
Expected Disbursements (in USD Million) (including all Sources of Financing)								
Fiscal Year	2014	2015	2016	2017	2018	2019	2020	2021
Annual	30.30	4.79	19.97	10.20	14.64	15.00	20	13
Cumulative	30.30	35.09	55.06	65.26	79.9	94.90	114.9	127.9
Allocations - Additional Financing (Senegal-Quality Improvement and Equity of Basic Education - AF - P163575)								
Source of Fund	Currency	Category of Expenditure	Allocation				Disbursement %(Type Total)	
			Proposed				Proposed	
IDA	USD	PBF Education Grants	2,785,000				100	
IDA	USD	Goods, works, non-consulting services, consultants’ services, Incremental Operating Costs and Training for the Project	57,215,000				100	
		Total:	60,000,000					
Components								
Change to Components and Cost								
Explanation:								

The components will receive additional funds as follows: Component 1 - US\$48 million; Component 2 - US\$8 million; and Component 3 - US\$4 million. Changes by component are elaborated below.

Component 1. Improving the Quality of Basic Education – US\$96.2 million (US\$48.2 Original Financing; US\$48 million Additional Financing) Component 1 aims at improving quality by (i) using PBCs throughout various levels of the education system for better accountability and focus on results; (ii) revitalized pre-service training to teachers; and (iii) a strengthened mathematics and science program.

Sub-component 1.1 [scale up] Performance based financing education grants. US\$11 million (US\$10 million Original Financing; US\$1 million Additional Financing) The AF will improve and expand the use of PBCs as a mechanism to focus on results and decentralize the system. As under the original project the PBCs between the 16 regional education authorities and the 59 corresponding district level offices with oversight of the utilization of school grants will continue to be financed. These PBCs will be strengthened to hold the district authorities and schools more accountable for results and to better monitor progress and performance. The mid-term review revealed difficulties related to delays in regular reporting from the decentralized level to the central level, which, in turn, delayed disbursements. A renegotiated PBC which has clearer targets and is accompanied by additional capacity building will be supported under the AF.

In addition, new PBCs will be introduced between the 16 regional education authorities and the Ministry of Education and will use the same approach. The regional education authorities play a central role in the global monitoring of the system and quality assurance. PBCs between the regional authorities and the ministry will therefore focus on targets which strengthen the monitoring mechanism and evaluate progress toward improved learning outcomes and retention. A select group of inspectors nominated by their peers will be selected to adapt the existing template for PBCs between the regional education authorities and the Ministry of Education with technical support.

Sub-component 1.2 [Scale up] Improving quality through improved school based management. US\$34.7 (US\$ 26.7 Original Financing; US\$8 million Additional Financing) The AF will improve upon and expand implementation of the two main activities supported by the initial project under this component, including: (i) developing local communities' participation and oversight in school management; and, (ii) providing funds to improve upon and support the implementation of the PBCs between district authorities and schools.⁵ Japan International Cooperation Agency (JICA) will continue to provide technical assistance for this activity.

The AF will scale up the initiative by providing additional training, cellphone facilities, software, and database systems to help communities accurately report on” (i) quality of service delivery and school functioning; (ii) actual transfers of resources as agreed in the PBCs; and (iii) any concerns regarding the utilization of the funds and teacher attendance. Special attention will be given to capacity building in the communities by providing trainings and associated materials in local languages to improve community participation and overseeing school management and progress. A pilot literacy program targeted towards members of the school management committees and local school communities (particularly women) will be launched under the AF to further support community participation.

As under the original financing, the government will continue to fund the school grants, while the AF will support improved PBCs for enhanced results at the school level. In the first phase of implementation, the quality improvement agreements were fully funded regardless of whether schools achieved their targets. The AF will take lessons learned from the first phase of implementation and introduce a strengthened financing

⁵ The PBCs between the district and school are sometimes referred to as Quality Improvement Agreements (QIAs), while the PBCs at the daara level are sometimes referred to as Equity Improvement Plans (EIPs). For clarity, the term PBCs is used throughout the project document. All sets of PBCs focus on improving quality.

mechanism which incentivizes results based on an improved PBC template with a strengthened set of indicators and targets. This includes support to quality improvement and inclusion measures, including those that support building a stronger school community and orientation around the whole child. This includes for example support to the existing sports competition program⁶. In this new phase, schools will receive allocations based on performance and paid in two parts: one allocation in September upon approval of the PBC and the second in February after a mid-year evaluation⁷. Small top up awards for the top percentage of most improved schools will also be developed to incentivize achievement, the bottom 20 percent of schools will also receive specialized attention in the following year.

Sub-component 1.3. [Scale up] Implementation of a national program to develop sciences and mathematics teaching at the middle school level. US\$41.1 million (US\$7.4 million Original Financing; US\$34 million AF). This sub-component primarily supported construction and rehabilitation of science and technology laboratory blocks (BSTs) in the regions and a national strategy for science and math. Under the AF no additional construction of BSTs will be financed; however, the AF will introduce (i) development of two science and mathematics focused specialized high schools – the LINEQs; (ii) expansion of science and mathematics content in preexisting schools using technology based teaching methods; (iii) corresponding scaled up math and science training for teachers at both primary and secondary levels; and (iv) emphasis on improving enrollment of girls in science and mathematics tracks.

Lycées d'excellence pour l'Intégration, l'Équité et la Qualité (High Schools of Excellence for Integration, Equity, and Quality - LINEQ). Under the additional financing, the project will establish two specialized high schools focused on mathematics and sciences. The high schools, which will strive to reach 50 percent enrollment of girls, will be focused on meeting high standards of excellence in science and mathematics teaching and learning to serve as a model for other successful schools in the country and promote equitable access for marginalized populations. The aim is to create an educational environment that stimulates creativity and innovation, and promotes best practices in teaching of mathematics and sciences by using technology aided, interactive pedagogical approaches. The two centers will be built in Kaolack and Sedhiou, which have been chosen on the basis of low access, completion, and high poverty rates as well as having the advantage of being in geographic positions that can serve several other regions. The site selection is fully described in Annex 1.

The LINEQs are expected to benefit 1200 students (600 in each institution) over the life of the project, and many more in the following years, given that they are designed to continue functioning well beyond 2021. The modalities of access to the two LINEQs will be specified by ministerial decree with the possibility for children from the daaras to compete.

Improving BSTs. To avoid orienting only top performing mathematics and science students towards mathematics and science tracks, the AF will support teacher training to teachers serving in the Orientation Committees and those of the *seconde* class (grade 11) to more effectively teach to learners at all levels, and to encourage girls to enroll in mathematics and sciences, given their under-representation in these areas. There will also be specific training for teachers and administrators in the BSTs on how to effectively utilize and maintain lab equipment for teaching, so that teachers are well equipped to manipulate and integrate the

⁶ The Ministries in charge of sport and education have established, by interministerial decree number 02620 in February 2015, a National Committee for Management and Recovery of School Sport, responsible for promoting the practice of sport in schools to bring together sports associations, cultivate young talents, and contribute to the citizenship education. In 2016-2017 the 16 Academy Inspectorates held competitions provided regional funds. As part of the performance based contracts the project will support sports activities, in particular, the registration fees for competitions and the acquisition of equipment for the school.

⁷ An interim report based on a sample will be submitted to trigger the second phase of the payment and an external report will be prepared before the payment of the first year of the next year.

high-level equipment into their teaching. The AF will support the 28 existing BSTs to sign PBCs with the district education inspectors. This contract will be based on a sciences and mathematics action plan prepared by the BST including, but not limited to, teacher training, learning material maintenance, tutoring and remediation courses, learning innovation and student assessment.

Grants to middle schools. The AF will also scale up the initiatives under the grants to middle schools to implement the reformed program on sciences and mathematics, with an added focus on higher enrollment of girls. Under the AF 300 additional middle schools and 160 upper secondary schools will receive grants to implement the reformed program on sciences and mathematics.

ICT innovation to support outcomes in core subjects. Lastly, a pilot will be introduced focused on technology-based teaching methods of mathematics and science, which will be introduced in 230 schools including 100 lower secondary schools (including BSTs), 30 upper secondary schools and 100 primary schools that operate with PBCs. Though there have been some ICT approaches used in Senegal, and a general willingness of the government to pursue ICTs in education, including placing pedagogical integration of ICTs as a key priority in the education sector policies, integration of technology into schools has generally been small scale and ad-hoc in nature.

The project will support the targeted training of teachers to use ICTs for their own professional development, integrate ICTs in the classroom for improved teaching and learning, and support ICT-rich classrooms and schools. In-service teacher training will be coupled with ICT integration into the 230 pilot schools mentioned above. The aim is to carefully integrate teacher pedagogy with technology use to ensure that the introduction of technology facilitates better teaching approaches, rather than introducing technology as an end in and of itself. The project will include provisions for professional development, the development of digital content where necessary, accompanying hardware to deliver the content, and a sustainable strategy of maintenance and technical support. Given that some of the digital content that will be adapted is available only in English there is also a small amount of funding set aside to facilitate translation of content into French.

Sub-component 1.4 [Revised] Improving pre-service training and in-service teacher and headmaster training (changed from “Improving pre-service teacher training”). US\$13.1 million (US\$8.1 million Original Financing; US\$5 million Additional Financing). This sub-component will (i) further improve the pre-service teacher training system introduced under the original project; (ii) introduce a revitalized in-service teacher training system for continuous professional development; (iii) introduce a classroom observation tool (COT); and, (iv) introduce training of school directors to build skills as pedagogic leaders.

Regional Centers for Training of Education Staff (*Centre regional de formation du personnel de l' education - CRFPEs*) are responsible for pre-service teacher training. Under the AF external expertise will be mobilized to help the CRFPEs develop additional services, including (i) pre-service teacher training at the middle school level; (ii) in-service training of teachers at all levels; and (iii) development of teacher training curriculum on physical exercise/sports and culture. In Senegal, particularly at the primary level, there is no systematic professional development system for current teachers, and the quality and availability of in-service teacher trainings is not well known. At the same time, the role of school headmasters, particularly at the primary level, is often viewed as that of purely school management and operations, rather than taking the role of an instructional leader. Evidence shows that the most effective schools are led by directors who are equipped to (i) evaluate their own school performance (using various tools including school level data, teacher observation, etc.); (ii) provide feedback to teachers; (iii) assess professional development needs; and (iv) direct resources (including and perhaps especially instructional resources) to where they are needed most. A two-pronged approach of assessing and building the supply of quality in-service training opportunities, and capacity building for headmasters will be taken so that not only are quality professional development opportunities made available to teachers, but that headmasters are well equipped to assess areas where

professional development is needed most, and to appropriately direct school resources to those critical teaching areas through the quality improvement plans. Given the critical importance of non-cognitive skills, consideration of professional development opportunities which include but extend beyond cognitive skills testing, including citizenship and character development, will be explored, with a more holistic focus on “developing the whole child.”

Activities that will be financed include: (i) survey of current in-service teacher training; (ii) technical assistance and training of trainers in CRFPEs to introduce in-service teacher training; (iii) equipping of CRFPEs; (iv) introduction of a classroom observation tool (COT) which aims to evaluate classroom practices and identify areas of improvement for teachers. The tool as well as important training on its utilization will be introduced to inform the in-service teacher training program development and effective school management and (v) teacher training. To ensure quality outcomes, the project proposes to train inspectors and school head masters/directors to allow them to assess teacher performance and provide practical feedback as described above. In sum the AF will support the training of 16 Regional Education inspectors, 59 district education inspectors, at least 8000 school headmasters and 25,000 teachers. The project will aim to support a study to evaluate the current system of appointing headmasters to ensure standard criteria are utilized.

Component 2. Strengthening Equity in Access to Education. US\$33.5 million (US\$27.5 Original Financing; US\$6 million Additional Financing) Component 2 aims to (i) scale up performance based financing of daaras as a part of the expanded foundational skills program; and (ii) introduce an accelerated “catch up” program for school aged children to integrate into the school system.

Sub-component 2.1. [Completed] Construction and rehabilitation of schools in areas lagging and in underserved areas. US\$20.5 million (US\$20.5 million Original Financing, No Additional Financing). All activities under this sub-component have been completed.

Sub-component 2.2. [Scale up] Grants for Results to Selected Daaras. US\$10 million (US\$7 million Original Financing; US\$3 million Additional Financing). The original project financed integration of foundational skills into the curriculum of 100 daaras through PBCs. In its next phase the project will finance an additional 400 daaras based on the existing selection criteria under the parent project, which includes an application process and consideration of the regional distribution of supported daaras. As under the original project, the AF will support the new daaras in preparing their PBCs, which include explicit mathematics and reading outcome targets, provisions for school feeding and health, and a tentative budget. Daaras will receive allocations based on performance and paid in two parts: one initial allocation at the beginning of the academic year upon approval of the improvement plans and the second half way through the year after a mid-year evaluation. The manual of procedures will define the allocation criteria, implementation and reporting process, and will build on the previous manual of procedures.

Sub-component 2.3. [NEW] Engaging out of school children. US\$ 3 million Additional Financing. Although progress has been made in access to education, an estimated nearly 1.5 million children ages 6-16 years are not currently attending school⁸. USAID has finalized a large national census on out of school aged children in Senegal which assessed reasons for not attending school, including the factors that contribute to high dropout rates, delayed entry, and never attending. Building upon this evidence base, the AF will pilot an accelerated program for young out of school children (ages 8-14) to allow them to integrate into the school system. This “catch up” program would allow students to transition back into the system and is directly aligned with the Government’s Fast Track Program which is focused on integrating school aged children back into the system in the five regions⁹ with the lowest enrollment rates.

⁸ USAID Out-of-School Children Study published in June 2017 (in French : *Étude nationale sur les enfants et les jeunes hors du système éducatif au Sénégal*)

⁹ Kaffrine, Diourbel, Louga, Matam and Tambacounda

The initiative will build on the current pilot being conducted by the Ministry of Education with the support of UNICEF. This approach, which is being conducted in the regions of Tambacounda and Kédougou is designed as a 9-month accelerated training program, including the national languages curriculum.

Component 3. Supporting Project Management and Capacity Building. US\$14.4 million (US\$7.4 million Original Financing; US\$7 million Additional Financing) Component 3 supports capacity building, project management, and improved sector management, especially through data management and utilization.

Sub-component 3.1. [Scale up] Project implementation and management. US\$3.04 million (US\$2.04 million Original Financing; US\$1 million Additional Financing). The sub-component will be scaled up to consider the extended scope of responsibilities under the project and the longer project duration under the AF.

Sub-component 3.2. [Scale up] Development of a monitoring and evaluation system. US\$8 million (US\$4 million Original Financing; US\$4 million Additional Financing). Building on the progress made under the current project, the AF will support an expanded EMIS system with the aim to have a fully integrated data management tool which captures the entire sub-sector. Ultimately, the goal is to be able to comprehensively monitor primary and secondary education data at school district, regional and national levels. A Service Delivery Indicator (SDI) exercise will also be supported under the AF to provide better data on teacher behavior and performance. The AF will support capacity building in policy analytics at the ministerial level for more evidence based decision making as a part of this effort and will continue to support the Internal Audit Department (*Inspection Interne*) of the Ministry of Education (MoE), as well as M&E of the project. The sub-component will also support the ministry in monitoring their own implementation of the shelter replacement program.

Sub-component 3.3. [Scale up] Support to decentralization of the education sector. US\$3million (US\$1 million Original Financing; US\$2million Additional Financing). The AF will continue to fund decentralization of the sector through the ongoing phased in capacity building approach for continued professionalization of the sector. As under the original project it will continue to finance technical assistance, training and equipment for regional and district authorities to be able to develop the following functions: human resources, leadership, management, financial management, planning, M&E, communication and internal controls. It will also support the establishment of an effective platform for dialogue between the Ministry and unions with the aim to strengthen the capacity of union actors to play a more decisive role in the education sector policy dialogue. This sub-component is flexible in identifying and supporting specific capacity building activities need to help strengthen regional, district authorities and national authorities, as these entities are heterogenous. The MoE will identify activities annually and submit them for review by the steering committee.

Current Component Name	Proposed Component Name	Current Cost (US\$M)¹⁰	Proposed Cost (US\$M)	Action
Component 1: Quality improvement of basic education	Component 1: Quality improvement of basic education	59.76	107.76	Revised
Component 2: Equity in access and retention	Component 2: Equity in access and retention	147.74	155.74	Revised

¹⁰ Including counterpart funding under the original financing.

Component 3: Project management and capacity building	Component 3: Project management and capacity building	10.20	14.20	Revised
	Total:	217.70	277.70	
Other Change(s)				
Implementing Agency Name		Type	Action	
Ministry of Education		Implementing Agency	No Change	
Change in Institutional Arrangements				
Explanation:				
<p>The implementation arrangements under the AF, including those for financial management (FM) and procurement, are expected to remain largely the same as those undertaken in support of the original financing. A manual of procedures has been drafted to define the PBC process and the detailed roles and responsibilities of all actors at the central, regional, district, and school levels. The accelerated catch up program, in-service teacher training, and development of the centers will be fully elaborated in the revised manual of procedures. Furthermore, capacity building measures will be built in to further improve monitoring and evaluation, as well as financial management. As in the original project, the additional financing will continue to use a DLI approach to finance the implementation of the activities. Annually the government prepares a work plan of activities for the implementation of the components proposed for the next school year starting October 1st together with a budget for such activities and a timetable for their implementation. The annual allocation of resources depends on the project disbursement schedule and DLIs achieved. DLIs are defined in Section B of Annex 1.</p>				
IV. Appraisal Summary				
Economic and Financial Analysis				
<p>The project interventions are expected to improve the quality and level of human capital within the country. Quality improvements are expected to reduce dropout and increase the proportion of the population which complete primary, as well as improve the quality of teaching throughout. The changes introduced in secondary including scale up of those implementing science and mathematics programs, and supported by teacher training and materials in these core areas will help improve the relevance of the courses taught and change in future skills possessed by graduates.</p>				
<p>The access intervention improves inclusion of segments of the population that are not taken into account currently, notably children in daaras who are often considered “inactive” after leaving their programs. The improvements to learning opportunities in rural areas will help to address the notable inequities. Further, the system strengthening efforts under component 3 are designed to further improve quality through capacity building.</p>				
<p>In terms of benefits to education, the Senegalese labor market provides a strong signal that investment in education yields important returns to the individual and household. Better education is associated with better earnings, and probability of wage employment. For example, estimates show that compared with an individual with no education, an individual who has primary education earns 18 percent more, 49 percent more when he has lower secondary education, and 88 percent with upper secondary.</p>				

Both the internal rate of return (IRR) and the net present value (NPV) of costs and benefits of both access and quality related interventions of the project show that the project is economically viable as fully described in Annex 5.

Rationale for Public Sector Provision

Public sector provision of education services as well as public financing of the education sector are indispensable in Senegal. About half of the Senegalese population lives below the national poverty line, which varies disproportionally across regions. Given the importance of the role of education in poverty reduction, coupled with the issue of extremely high out-of-school rate mostly affecting disadvantaged groups and the lower quality of education, there is a strong rationale for the government to intervene in the system to ensure inclusive economic growth and development. For example, the out-of-school rate for the poorest quintile stands at 55 percent as opposed to 28 percent for the richest quintile. The inequality in access to education at the regional level is large. This requires government intervention to provide equal opportunities for all children in Senegal. Through this project, it is expected that the government would increase access rates at the primary and secondary level, accommodate second chance learners, increase the quality of education, particularly in mathematics and sciences which is critical to the labor market, and reduce inequality across key socio-demographic groups.

World Bank's Value Added

The World Bank has been engaged in constructive education sector dialogue with Senegal for over 20 years. Building on lessons learned from several previous projects, and studies, the proposed project continues to deepen the World Bank's engagement in for better results. The DLI instrument, which is laying the groundwork for a P4R, is an important aspect of the decentralized approach and leading to gains in school management and internal efficiency. With its experience in this area, combined with experience in helping to implement the critical programs, such as the daara program, and important quality and equity interventions, the World Bank is in a good position to continue to support Senegal.

Technical Analysis

The technical analysis from the parent project remains relevant. The project aims are still to improve learning outcomes and equity of access at both the primary and secondary levels. The project will continue to help to change incentive structures for inspectors, school directors, and teachers to encourage them to focus more on student learning, teaching processes, M&E and accountability mechanisms, and greater involvement of communities in schooling, while improving quality through interventions which target teachers, and school directors. Access interventions which target marginalized populations are scaled up in the additional financing. Activities were selected based on the evidence developed during the previous several projects, as well as updated data through the DHS and EMIS.

The Project's technical feasibility is considered satisfactory for the following reasons; (i) the concept of PBCs is well understood from both the ongoing current project, and the previous one which introduced this mechanism at the central level and from pilot initiatives carried out in selected districts and significant lessons about their design and implementation have been learned through project implementation; (ii) various pilots and initiatives to improve learning and equity have already taken place in Senegal over the past five years which provides a base on which to build PBCs both at the district and school level. Examples include school plans with a specific aim to improve learning by using formative pupil evaluation, in-service teacher training, peer tutoring, parent involvement, IT initiatives to strengthen teaching practices; and demand-side initiatives to respond to religious concerns and community secondary; (iii) the government is implementing reforms that will underpin the quality enhancing initiatives financed by the project and these

include pre-service training and in-service training that puts more focus on pedagogy, experience in the classroom and certification, hiring teachers with more education; and (iv) improving school management committee initiatives that will build on the technical assistance provided by JICA. Lessons learned from these experiences have been incorporated into the new procedures manual for schools.

Social Analysis

Explanation:

The social safeguards for the original project, which triggered OP 4.12 Involuntary Resettlement, will remain the same for the additional financing. An RPF and ESMF have been updated and re-disclosed in country and at the Infoshop on March 29, 2018. In addition, the new initiative to pilot a second chance program is expected to have positive social benefits, given that it provides access to vulnerable children who are currently not attending school.

Environmental Analysis

Explanation:

The proposed AF operation is a category B project and triggers the environment assessment OP/BP 4.01 Policy due to construction/rehabilitation works that may be supported under the daara initiative and high schools. Consistent with Category B projects, the negative environmental and social impacts of these small scale civil works can be mitigated and are expected to be low, and site specific. No additional safeguards policies are triggered and the classification remains the same. As such, the Environmental and Social Management Framework (ESMF) prepared for the parent project will be maintained. The ESMF outlines an environmental and social screening process for future sub-projects to ensure that they are environmentally and socially sound, sustainably implementable, and in line with government and World Bank operational safeguards policies and guidelines on environmental and social impacts and risks management. The implementing unit has had experience on ESMF implementation through the current parent project. One of the staff is the project's environmental specialist and the specialist's capacity will be further supported by the World Bank safeguards specialists throughout the process. The ESMF was updated with a cover-page that highlights the main lessons learned and areas of improvement and, as mentioned above, has been re-disclosed in country and at the Infoshop.

Under the additional financing a grievance redress mechanism (GRM) will be established utilizing local community systems and successful approaches already utilized in Senegal. The project will build upon the extensive engagement with school based management committees and wider school communities to ensure that the GRM is effectively managed and available.

Risk

Explanation:

The risks will remain the same for the additional financing. There are substantial risk ratings for the technical design of the project, as well as for institutional capacity. Although the Government now has several years of experience with disbursement linked indicators, the design of the project remains technically complex. Institutional capacity building is built in, as is technical assistance where needed (in developing a new continuous professional development – CPD – program) to mitigate this risk. Regular troubleshooting throughout the current project to address any project bottlenecks related to the performance based contracts have helped to address any challenges.

V. World Bank Grievance Redress

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/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Annex 1. Part A. Revised Results Framework

Senegal: Quality Improvement and Equity of Basic Education Additional Financing

Project Development Objectives

Original Project Development Objective - Parent:

The project development objective is to improve learning outcomes for early grades, increase access to the science and mathematics tracks of secondary schools, and to improve equity in access to basic education.

Proposed Project Development Objective - Additional Financing (AF):

No change

Results

Core sector indicators are considered: Yes

Results reporting level: Project Level

Project Development Objective Indicators

Status	Indicator Name	Corporate	Unit of Measure		Baseline	Actual(Current)	End Target
Revised	Increase in the % of students who, by the end of Grades 2 and 4 of primary schooling, demonstrate their ability to read and comprehend grade level texts	<input type="checkbox"/>	Text	Value	CP : 34.5 CE2: 51.7	CP : 59.73 CE2: 60.27	CP: 63 CE2: 65
				Date	02-Jan-2012	10-Feb-2017	30-Dec-2021
				Comment			End target changed
Revised	Increase in the % of students who, by the end of grade 2 and 4 of primary schooling, demonstrate their ability to compute and solve grade level math problems	<input type="checkbox"/>	Text	Value	CP: 51.09 CE2: 46 CE2 :46.2	CP: 59.21 ; CE2: 54.20 ESVS:73.2	CP: 65 CE2:65 ESVS:80
				Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			End target changed
New	Number of children enrolled in the two new Lycees pour	<input type="checkbox"/>	Number	Value	0.00	0.00	600.00
				Date	03-May-2018	03-May-2018	30-Dec-2021

	l'Intégration, l'Equité et la Qualité (LINEQ)			Comment			The two institutions will enroll 300 in the first year and will reach the final target of 1200 (600+600) in the year after closing.
New	% of Female	<input type="checkbox"/>	Percentage Sub Type Supplemental	Value	0.00	0.00	50.00
Revised	% of middle school students enrolled in math and science tracks (S1, S2) in secondary level	<input type="checkbox"/>	Percentage	Value	32.00	34.91	45.00
				Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			End date extended
New	Female beneficiaries	<input type="checkbox"/>	Percentage Sub Type Supplemental	Value	24.30	24.30	30.00
Revised	Direct project beneficiaries	<input type="checkbox"/>	Number	Value	1073450.00	1913975.00	2500000.00
				Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			The number of direct project beneficiaries reflects the project scale up.
Revised	Female beneficiaries	<input type="checkbox"/>	Percentage Sub Type Supplemental	Value	504.00	504.00	525.00

Revised	System for learning assessment at the primary level	<input type="checkbox"/>	Yes/No	Value	Yes	Yes	Yes
				Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			End date extended
No Change	Utility of the learning assessment system	<input type="checkbox"/>	Number Sub Type Supplemental	Value	4.00	4.00	4.00
Revised	Number of non-repeater enrolled students in grade 1 to 4 in 5 regions:Kafrine, Tambacounda, Matam, Louga, Diourbel	<input type="checkbox"/>	Text	Value	35365 65398 51496 66834 69324	48273 83579 69463 89992 106706	49721 86086 71547 92692 109907
				Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			End date extended
New	Increase in the % of students who, by the end of Grades 1 of primary schooling, demonstrate their ability to read and comprehend grade level texts	<input type="checkbox"/>	Percentage	Value	53.90	53.90	60.00
				Date	30-Nov-2017	30-Nov-2017	30-Dec-2021
				Comment			

Intermediate Results Indicators

Status	Indicator Name	Corporate	Unit of Measure		Baseline	Actual(Current)	End Target
Revised	% of IEF that achieved all least 95% of targets	<input type="checkbox"/>	Percentage	Value	0.00	88.13	100.00
				Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			End Date extended
New	Number of Teachers Trained in-service	<input type="checkbox"/>	Number	Value		0.00	25000.00
				Date		03-May-2018	30-Dec-2021

				Comment			
New	Number of out of school children back into the system	<input type="checkbox"/>	Number	Value		0.00	15000.00
				Date		03-May-2018	30-Dec-2021
				Comment			
New	% of Female	<input type="checkbox"/>	Percentage Sub Type Supplemental	Value	0.00	0.00	30.00
New	number of school community members trained using the revised materials in local languages	<input type="checkbox"/>	Number	Value	0.00	0.00	14000.00
				Date		03-May-2018	30-Dec-2021
				Comment			
New	% of school heads trained	<input type="checkbox"/>	Percentage	Value	0.00	0.00	60.00
				Date			30-Dec-2021
				Comment			
Revised	% of schools with a QIA based on Quality Improvement Plan	<input type="checkbox"/>	Percentage	Value	0.00	100.00	100.00
				Date	02-Jan-2012	14-Nov-2017	30-Nov-2021
				Comment			End dae extended
Revised	% of newly recruited teachers trained and certified in CRFPE using the new training program	<input type="checkbox"/>	Percentage	Value	0.00	100.00	100.00
				Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			End date extended
Revised	% of schools with a functional school-based management committee	<input type="checkbox"/>	Percentage	Value	10.00	98.38	100.00
				Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			End date extended
Revised			Percentage	Value	0.00	100.00	100.00

	% of middle schools teachers trained in the utilization of the new teaching guides	<input type="checkbox"/>		Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			End date extended
Revised	Cumulative number of schools built by the project to extend the primary education network	<input type="checkbox"/>	Number	Value	0.00	190.00	200.00
				Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			The AF will not build new schools. End date extended.
Revised	% of Daaras that achieved the 75% of the agreed targets	<input type="checkbox"/>	Percentage	Value	0.00	78.87	85.00
				Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			End target extended
Revised	% of Academic Inspectorates and Inspectorates of Training and Education have at least two officials in HR, statistics, and budget management trained to handle the transferred roles and responsibilities	<input type="checkbox"/>	Percentage	Value	0.00	100.00	100.00
				Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			End date extended
Revised	System of learning assessment	<input type="checkbox"/>	Yes/No	Value	Yes	Yes	Yes
				Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			End date extended
Revised	A regional education report is produced yearly	<input type="checkbox"/>	Yes/No	Value	No	Yes	Yes
				Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			End date extended
Revised			Yes/No	Value	No	Yes	Yes

	A human resources (HR), statistics and budget management system including software and equipment is established in all Academic Inspectorates and in all Training and Education Inspectorates (Yes/No, C	<input type="checkbox"/>		Date	02-Jan-2012	14-Nov-2017	30-Dec-2021
				Comment			End Date extended

Annex 1 Part B: Disbursement-Linked Indicators, Disbursement-Linked Results and Allocated Amounts

Senegal: Quality Improvement and Equity of Basic Education Additional Financing

	<i>Total DLI Financing (million EUR)</i>	<i>DLRs and Indicative timeline for DLR achievement</i>				<i>Verification Protocol</i>	<i>Financing amount</i>
		<i>School Year 1</i>	<i>School Year 2</i>	<i>School Year 3</i>	<i>School Year 4</i>		
DLI 1: A.2 (b) 2) Financing, through the provision of Quality Improvement Subgrants to selected schools, of specific development plans to implement quality improvement plans for said schools, PBCs for IEF and IA.		59 IEF signed PBC (PAQ) with IA 16 IA negotiated and PBCs the Ministry of Education (CDP) All public primary schools negotiated and signed QIA with IEF	59 IEF achieved at least 50% the targets in their PBCs 16 IA achieved at least 50% the targets in their PBCs At least 80% of All public primary schools achieved at least 50% the targets in their QIA	59 IEF achieved at least 70% the targets in their PBCs 16 IA achieved at least 70% the targets in their PBCs At least 80% of All public primary schools achieved at least 50% the targets in their QIA	59 IEF achieved at least 90% the targets in their PBCs 16 IA achieved at least 90% the targets in their PBCs At least 80% of All public primary schools achieved at least 50% the targets in their QIA	(i) At the end of the School Year, each IA will prepare a consolidated report of the progress made by the sector in terms of results and outcomes along with financial situation analysis (ii) Based on these reports, the MOE will prepare a combined report on the status of each DLI along with a certification confirmation letter and supporting document. (iii) The third-party verification will be used to confirm the MoE reports on achievement and performances and also determine the amount to be allocated. The Operations Manual will detail operating modalities	Yes/No Confirmation Certificates of signed PBCs (IA, IEF and schools) formally transmitted by the SG of MoE to the Bank) Report from IAs and Independent Auditors will be the main supporting document for the disbursement FY 1, funds will be disbursed if MEN transmitted to the Bank all signed PBCs along with certificate of confirmation. FY2-4, funds will be disbursed once results submitted by the MoE is certified by independent auditor. Disbursement will be 100% if the project achieved at least 80% of targets in PBCs. Partial disbursement will apply where any part of the requirement is fulfilled. the disbursement will be
<i>Allocated amount (EUR):</i>	<i>6.61</i>	<i>1.62</i>	<i>1.75</i>	<i>1.62</i>	<i>1.62</i>		

							<p>proportional to the achievement. The amount undisbursed could be postponed to the School Year Y +1.</p> <p>Allocations are made before 31 October of each School Year and apply the formula</p>
DLI 2 A2. (a) Enhancing the management of schools at the village and neighborhood, level		Assessment of SMC implementation with clear recommendation on how to strengthen and best assess functioning	70 % of all public primary Schools have functional SMC	80 % of all public primary Schools have functional SMC	90 % of all public primary Schools have functional SMC	Same protocol of verification	Yes/No FY 1 : Availability of the Report of the SMC Assessment with recommendations cleared stated. FY 2 – 4 : The sub indicator for each FY must be verified in full for the disbursement to occur. If the target is not met for FY X, the undisbursed amount will be disbursed in FY X+1 provided that the FY X target is met. Disbursement will be 100% if the project achieved at least 80% of targeted DLR.
<i>Allocated amount (EUR):</i>	0.93	0.15	0.31	0.31	0.16		
DLI 3 Implementing a national program for the development of sciences and mathematics teaching		The program of sciences and mathematics is reformed and is being implemented national wide	Carrying out an assessment of the <i>Lycée Scientifique de Diourbel</i> to upgrade: (i) the quality of training; (ii) the facilities;	70% of all Maths and Sciences teachers received a training on teaching Mathematics and sciences	90% of all Maths and Sciences teachers received a training on teaching Mathematics and sciences		Yes/No FY 1 : The achievement of this DLI means that the reform is being

and learning at middle school level			and (iii) the equipment.				applied by each middle school. Two main aspects will support this achievement: (i) application in all middles schools of coefficient reduction in math, (ii) 2019 BFEM will be done in this new reform.
<i>Allocated amount (EUR):</i>	<i>1.70</i>	<i>0.30</i>	<i>0.57</i>	<i>0.54</i>	<i>0.30</i>		<p>The DEMSG will report on the state of sciences reforms implementation with administrative support documents. This report will be accompanied by the IA report at the regional level.</p> <p>FY 2 – the report on the Audit of Diourbel Lycée of Sciences is prepared and shared with the High-level education authorities and Bank. The conclusion will serve to better design the construction of the two INEQ.</p> <p>Amount allocated for FY 2 targets will be disbursed on a Yes/No basis + supporting document and proofs.</p> <p>FY 3 – 4 : Results is achieved in this condition: X (number of sciences teacher / total)*100. If this</p>

							<p>number is ≥ 40. At so on for others proportion (70 and 90%)</p> <p>for FY X, the undisbursed amount will be disbursed in FY X+1 provided that the FY X target is met.</p>
<p>DLI 4</p> <p>A.2 (e) (ii) and (iv) expansion of science and mathematics in pre-existing schools using technology-based, interactive pedagogical approaches</p>		<p>Selection of 100 primary schools, 100 secondary level schools and 30 high schools that will experiment this approach and availability of tools including PBCs for upper secondary level</p>	<p>30 Upper secondary institutions are implementing PBC based on ICT approach to improve math and sciences</p>	<p>National Strategy on Sciences and Maths results is assessed and results are largely disseminated</p> <p>70% of BST achieved 80% of the target in the PBC</p>	<p>Recommendation from the National Strategy on Sciences and Maths Assessment is successfully addressed</p> <p>90% of BST achieved 90% of the target in the PBC</p>	<p>School Year 1: The Ministry will provide all lists of institutions selected and the modalities of selection along with supporting documents.</p> <p>School Year 2-4: the upper secondary PBCs is fully assessed by independent party and results is used to re-adjust the modalities and key lessons learnt will be shared with all stakeholders. In addition, the ministry will conduct an assessment of the effectiveness of the reform and list key recommendation to improve sciences.</p> <p>The rest of the protocol will be the same as described above. .</p>	<p>Amount allocated for FY 2018 and 2019 targets will be disbursed on a Yes/No basis. The sub indicator for each FY must be verified in full for the disbursement to occur.</p> <p>If the target is not met for FY X, the undisbursed amount will be disbursed in FY X+1 provided that the FY X target is met.</p> <p>The DEMSG will report on the state of sciences reforms implementation with administrative support documents. This report will be accompanied by the IA report at the regional level. The IEF will issue a report on the achievement of PBCs for each of the BSTs. If 9 out of 10 results stipulated in the PBC</p>
<p><i>Allocated amount (EUR):</i></p>	<p>7.75</p>	<p>1.54</p>	<p>2.33</p>	<p>2.34</p>	<p>1.54</p>		

							<p>are achieved by the BST the full allotment will be disbursed. If not, a partial disbursement will be applied. The indicator is the average of achievement of all BST (Sum of BST achievement/ Number of BST)</p> <p>If the target is not met for FY X, the undisbursed amount will be disbursed in FY X+1 provided that the FY X target is met.</p>
DLI 5 B.2 Financing, through the provision of Daara School Subgrants to selected Daara Schools, of specific development projects (underserved region, recruitment French teacher, equipment)		A list of additional eligible and interested Daaras is developed along with consensual criteria for selection	At least 500 negotiated and signed contracts between IEFs and Daaras	75% of Daaras that achieved at least the 75% of the agreed targets	80% of Daaras that achieved at least the 90% of the agreed targets	(i) At the end of the School Year, each IA will prepare a consolidated report of the progress made by the sector in terms of results and outcomes along with financial situation analysis	Yes/No FY 1, funds will be disbursed if MEN transmitted to the Bank all list of eligible Daara to participate in the process.
<i>Allocated amount (EUR):</i>	4.81	1.15	1.22	1.22	1.22	(ii) Based on these reports, the MOE will prepare a combined report on the status of each DLI along with a certification confirmation letter and supporting document. (iii) The third-party verification will be	FY2-4, funds will be disbursed once results submitted by the MoE are certified by independent auditor. Confirmation Certificates of signed Daara PBCs by each formally should be transmitted by the Inspection of Daara to the Bank

						<p>used to confirm the MoE reports on achievement and performances and also determine the amount to be allocated.</p> <p>The Operations Manual will detail operating modalities</p>	<p>Report from IAs and Independent Auditors will be the main supporting document for the disbursement</p> <p>Disbursement will be 100% if the project achieved at least 80% of targets in PBCs. Partial disbursement will apply where any part of the requirement is fulfilled. the disbursement will be proportional to the achievement. The amount undisbursed could be postponed to the next School Year Y +1.</p> <p>Allocations are made before 31 October of each School Year and apply the formula</p>
<p>DLI 6</p> <p>B.3 Piloting an accelerated program aligned with the Recipient's fast track program to allow dropped out students of ages 8-14 to integrate back into the school system</p>		A catch-up program is designed and integrated in the PBC in Kaffrine, Diourbel, Louga, Matam and Tambacounda	Progress made on enrollment of new students in catch up program in the selected region is qualified as satisfactory	Progress made on enrollment of new students in catch up program in the selected region is qualified as satisfactory	Progress made on enrollment of new students in catch up program in the selected region is qualified as satisfactory	Each School Year, the IAs of 5 lagging behind regions will prepare progress report on the execution of their PBCs including the specific progress on Catch up program. The results and report will be the basis of the independent assessment.	The achievement of this DLI will be assessed every School Year for each of the 5 lagging behind regions on a Satisfactory or Not basis. Disbursement from the Association will be proportionate to the final statement: D= 100% of the DLR is satisfactory D=0 if the final statement is Not satisfactory
Allocated amount (EUR):	1.05	0.22	0.32	0.32	0.17	The rest of the protocol is the same as described above.	

						Modalities of assessment and progress monitoring will be detailed in the Manual of procedures.	If the target is not met for FY X, the undisbursed amount will be disbursed in FY X+1 provided that the FY X target is met. achievement of annual PI. The DLI is scalable proportionate to the percentage of LGs that achieve the target – above the minimum threshold of twenty percent (20%).
DLI 7 C.1 (b) DLI #7 reinforcement of MoE's IT System, communication, monitoring and evaluation of the Project		16 IA have submitted their report including Achievement, Outcomes and financial situation along with agreed supporting documents (<i>pieces justificatives</i>)	16 IA have submitted their report including Achievement, Outcomes and financial situation along with agreed supporting documents (<i>pieces justificatives</i>)	16 IA have submitted their report including Achievement, Outcomes and financial situation along with agreed supporting documents (<i>pieces justificatives</i>)	16 IA have submitted their report including Achievement, Outcomes and financial situation along with agreed supporting documents (<i>pieces justificatives</i>)	IA will submit a consolidated Report including Achievement, Outcomes and financial situation along with supporting documents. ADM submits to the Association the following School Year a consolidated execution report The rest of the protocol remain the same. The Manual of procedures will spell out the format and content of this report and also a template.	Achievement of the DLI objective will be assessed on a Satisfactory or No basis. The first level of approval is the MoE who will be consolidated reports and IFR and send it to the Bank for final comments and recommendations. The final view of the Bank on the quality of the report will determine the amount to allocate for the DLR. The quality of the Report will be rated in four scales. S : Satisfactory => D= 100% MS : => 80% MU => D will be subject to the
<i>Allocated amount (EUR):</i>	2.55	0.63	1.27	0.32	0.32		

							<p>fulfillment of requirements. If not actions are taken in major financial issue, the Disbursement of the component might be affected. The manual will clarify this.</p> <p>If the target is not met for FY X, the undisbursed amount will be disbursed in FY X+1 provided that the FY X target is met.</p>
<i>Total Financing allocated (EUR million):</i>	25.40	5.63	7.74	6.66	5.30		

Annex 2. Revised Project Description

Senegal: Quality Improvement and Equity of Basic Education Additional Financing

1. Component 1 will receive an additional US\$48 million in financing; Component 2 will receive an additional US\$8 million in financing; and Component 3 will receive an additional US\$4 million in financing. Changes by component are elaborated below.
2. **Component 1. Improving the Quality of Basic Education – US\$96.2 million (US\$48.2 Original Financing; US\$48 million Additional Financing).** Component 1 aims at improving quality by (i) using PBCs throughout various levels of the education system for better accountability and focus on results; (ii) revitalized pre-service training to teachers; and (iii) a strengthened mathematics and science program.
3. **Sub-component 1.1 [scale up] Performance based financing education grants. US\$11 million (US\$10 million Original Financing, US\$1 million Additional Financing).** The AF will improve and expand the use of PBCs as a mechanism to focus on results and decentralize the system. As under the original project the PBCs between the 16 regional education authorities and the 59 corresponding district level offices with oversight of the utilization of school grants will continue to be financed. These PBCs will be strengthened to hold the district authorities and schools more accountable for results and to better monitor progress and performance. The mid-term review revealed difficulties related to delays in regular reporting from the decentralized level to the central level, which, in turn, delayed disbursements. A renegotiated PBC which has clearer targets and is accompanied by additional capacity building will be supported under the AF.
4. In addition, new PBCs will be introduced between the 16 regional education authorities and the Ministry of Education and will use the same approach. The regional education authorities play a central role in the global monitoring of the system and quality assurance. PBCs between the regional authorities and the Ministry will therefore focus on targets which strengthen the monitoring mechanism and evaluate progress toward improved learning outcomes and retention. A select group of inspectors nominated by their peers will be selected to adapt the existing template for the PBCs with technical support.
5. **Sub-component 1.2 [Scale up] Improving quality through improved school based management. US\$34.7 (US\$26.7 Original Financing, US\$8 million Additional Financing)** The AF will improve upon and expand implementation of the two main activities supported by the initial project under this component, including: (i) developing local communities' participation and oversight in school management; and (ii) providing funds to improve upon and support the implementation of the PBCs between district authorities and schools.¹¹
6. The AF will scale up the initiative by providing additional training, cellphone facilities, software, and database systems to help communities accurately report on the (i) quality of service delivery and school functioning; (ii) actual transfers of resources as agreed in the PBCs; and (iii) any concerns regarding the utilization of the funds and teacher attendance. As in the original financing, JICA will continue to provide technical assistance for this activity but no direct financing. Special attention will be given to

¹¹ The PBCs between the district and school are sometimes referred to as Quality Improvement Agreements (QIAs), while the PBCs at the daara level are sometimes referred to as Equity Improvement Plans (EIPs). For clarity, the term PBCs is used throughout the project document. All sets of PBCs focus on improving quality.

capacity building in the communities by providing trainings and associated materials in local languages to improve community participation.

7. The decentralization of Senegal's education system has enabled the establishment of school management committees (SMCs) in all schools. This decentralization was accompanied by the empowerment of actors at the local level in terms of administrative and financial management. More than 70 percent of the SMCs are composed of women, many which are illiterate. In this context, additional funding will be used to provide trainings and materials in local languages, and in forms accessible to non-literate where possible, to be sure to address any preexisting barriers to community participation, including limited education. Furthermore, a small pilot literacy program targeted towards members of the school management committees, especially women, will be launched under the AF to further support community participation.

8. As under the original financing, the Government will continue to fund the school grants, while the AF will support improved PBCs for enhanced results at the school level. In the first phase of implementation, the quality improvement agreements were fully funded regardless of whether schools achieved their targets. The AF will take lessons learned from the first phase of implementation and introduce a strengthened financing mechanism which incentivizes results based on an improved PBC template with a strengthened set of indicators and targets. This includes support to quality improvement and inclusion measures including those that support building a stronger school community and orientation around the whole child. As such, the AF will support quality improvement and inclusion measures, including through support to the existing sports competition program as a part of activities to build citizenship. The Ministries in charge of sport and education have established by inter-ministerial decree number 02620 in February 2015, a National Committee for Management and Recovery of School Sport, responsible for promoting the practice of sport in schools to bring together sports associations, detect young talents, and contribute to the citizenship education of learners. In 2016-2017 the 16 Academy Inspectorates held competitions throughout their regions and provided regional funds. As part of the performance based contracts the project will support sports activities, in particular the registration fees for competitions and the acquisition of equipment for the school.

9. In this new phase, schools will receive allocations based on performance and paid in two parts: one allocation in September upon approval of the PBC and the second in March after a mid-year evaluation. Small top up awards for the top 20 percent of most improved schools will also be developed to incentivize achievement, as will support grants to the lowest 20 percent. The manual of procedures will define the allocation criteria, implementation and reporting process, and will build on the well-developed preexisting mechanism.

Sub-component 1.3. [Scale up] Implementation of a national program to develop sciences and mathematics teaching at the middle school level. US\$41.4 million (US\$7.4 million Original Financing, US\$34 million Additional Financing). This sub-component primarily supported construction and rehabilitation of science and technology blocks (BSTs) in 14 regions and a national strategy for science and mathematics. Under the AF no additional construction of BSTs will be financed, however the AF will introduce (i) development of two *Lycée d'Excellence pour l'Intégration, l'Équité et la Qualité* (LINEQs – High Schools of Excellence for Integration, Equity and Quality) focused on science and mathematics ; (ii) expansion of science and mathematics content in preexisting schools using technology based teaching methods including use of tablets, adaptive technology, etc.; (iii) corresponding scaled up

mathematics and science training for teachers at both primary and secondary levels; and (iv) emphasis on improving enrollment of girls in science and mathematics tracks. During the mid-term review (MTR) it was noted that the full implementation of the initial planned activities would not be sufficient to achieve the development objective of increasing the percentage of students enrolled in mathematics and science tracks at the secondary level by 45 percent. The major constraints are: (i) the weakness of mathematics teaching at the primary level; (ii) lack of tools and support for teaching mathematics at all levels; and (iii) the behavior of teachers in the Orientation Commission who are responsible for orienting students toward the Sciences Series and focus on a minority of students who are particularly skilled in science and mathematics. This is similar among teachers in the *seconde* class (grade 11) who are not trained to teach to students who have moderate skills in mathematics and focus the majority of their efforts toward advanced learners. The government developed a Fast Track Initiative action plan to increase orientation of students at various skill levels toward mathematics and science, but it has not yet been rolled out. It will be critical to tackle the challenge from primary school onwards, as weak mathematics and science skills early on, and/or disengagement with the subjects at early ages leads students to steer away from these subjects (or be steered away from them by the system) in later ages. In 2016, 27.5 percent of students were enrolled in secondary schools in science series against 29.3 percent in 2015, a decrease of 1.8 percentage points. This percentage is 24.3 percent for girls and 30.7 percent for boys. This reflects the predominance of literary streams and poses the challenge of promoting science and technology. The lower enrollment of girls in this track is a challenge, and skewed toward enrollment in the literary series (L series) -- (78.3 percent of girls were enrolled and 74.3 percent of girls were admitted in the L series). The project will provide support through awareness campaigns, teacher training, and strengthening the role of BSTs to increase the percentage of girls in Science Series from 24.35 to 30 percent.

10. *Lycées d'Excellence pour l'Intégration, l'Équité et la Qualité (LINEQs)*. Under the additional financing, the project will establish two centers of excellence focused on mathematics and sciences. These schools will primarily target girls and will be located in Kaolack and Sedhiou, regions which have been selected based on their demographics, readiness for implementation. The high schools, which will strive for over 50 percent enrollment of girls, will be focused on meeting high standards of excellence in science and mathematics teaching and learning so as to serve as a model for other successful schools in the country. The aim is to create an educational environment that stimulates creativity and innovation, and promotes best practices in teaching of mathematics and sciences by using technology aided, interactive pedagogical approaches.

11. The two centers will be built in Kaolack and Sedhiou, which have been chosen on the basis of access, completion, and poverty rates, as well as proximity to other regions. Both regions have the advantage of being in geographic positions that can serve several other regions. For example the Kaolack area is centrally located and can pull the regions of Kaffrine, Tambacounda, Matam and Fatick. While the Sedhiou region, has proximity to Ziguinchor, Kolda and Kédougou. In these two regions, the Ministry plans to set up the two centers in the Nioro and Sedhiou districts, both of which are characterized by a poverty level of over 60 percent compared to the national average of 46 percent. On the basis of the national poverty line, poverty affects 6.3 million people, nearly one out of every two Senegalese (ANSD, 2011). Rural and southern areas appear to be particularly vulnerable, with higher rates of income poverty around 70 percent. The gross enrollment rate in the Kaolack region (77.8 percent) is below the national average (86.1 percent). On the other hand, while Sedhiou region has a GER of 106.4 percent, this high enrollment rate masks disparities at the district levels which vary significantly. Low completion rates

remain a key challenge in this region. For example, although Sedhiou has one of the highest GERs, it has the second lowest transition rate at the secondary level (43.1 percent vs. 55.9 percent nationally).

12. The two regions also have relatively low results compared to the national average in terms of access in sciences. For example, the percentage of students above the mastery threshold is 18.4 percent for Kaolack and 10.3 percent for Sedhiou. In terms of access to science, the Sedhiou region has the lowest percentage of national students in science series (15.08 percent), partially due to a deficit in opportunities to study mathematics and science. In addition, the 2016 secondary school completion examination (*Brevet de Fin d'Etudes de l'Enseignement Moyen*) analysis report shows that, in mathematics, 97 percent of candidates from the Sedhiou region did not obtain the average. In sciences (SVT) the same trend is observed with 73 percent of candidates not achieving the average. The same goes for the Kaolack region where 86 percent of the candidates did not perform well in sciences. In addition, the rates of admission to the Elementary School Completion Certificate (*Certificat de Fin d'Etudes de l'Elementaire, CFEE*) for these two regions (40.06 percent for Sedhiou and 52.55 percent for Kaolack) are below the national average (58.3 percent).

13. The selection of students will be based on competition. The study will start from grade 1 of junior secondary to grade 7. This approach will allow children to continue their studies. It was noted that most children give up before the end of junior secondary. The selection will be based on a national competition with a preference for children from poorest populations and girls. Children from richest families will be able to access and pay school fees, which will be fixed based on the private costs. A quota will be determined for these children.

14. The capacity of each high school will be set at 600 pupils. The aim is to build on the experience of other successful, related models and to develop a twinning approach to benefit from the other relevant experiences on the continent such as Kenya¹² and Senegal Sankore Project¹³. Each school is expected to be outfitted with 25 classrooms, 4 science laboratories, 2 computer labs, 2 language laboratories, an auditorium, a modern library including a (i) reading room, (ii) projection room; (iii) document storage room, and (iv) administrative office; (v) a sports facility; (vi) a small health center; and (vii) dormitories and a dining hall to house up to 500 students.

15. The AF will finance development and implementation of two centers, including the associated architectural studies, supervision, construction costs, materials, and labor, equipment, and associated training. The AF will also support the audit of the existing *Lycée scientifique de Diourbel* to upgrade: (i) the quality of the training; (ii) the infrastructure and equipment; and (iii) implement the PBC.

16. **Improving BSTs.** To avoid orienting only top performing mathematics and science students towards mathematics and science tracks, the AF will support teacher training to teachers serving in the Orientation Committees and those of the second class (grade 11) to more effectively teach to moderate and low-level learners. There will also be specific training for teachers and administrators in the new BSTs on how to effectively utilize and maintain lab equipment for teaching, so that teachers are well equipped

¹² Education Cloud is one of the recent innovations in delivery of quality education and has been key in expanding access as well as diverging digital learning resources.

¹³ Project Sankoré is a collaborative effort between France and a number of African countries aiming at improving learning by creating a digital classroom through the introduction of simple interactive whiteboard equipment. In Senegal the project was implemented in two phases. The first phase was implemented between 2011 and 2013.

to manipulate and integrate the high-level equipment into their teaching. The AF will support the 28 existing BST to sign PBCs with the district education inspectors. This contract will be based on an action plan prepared by the BST including, but not limited to, teacher training, learning material maintenance, tutoring and remediation courses, learning innovation and student assessment.

17. **Grants to middle schools.** The AF will also scale up the initiatives under the grants to middle schools to implement the reformed program on sciences and mathematics, with an added focus on higher enrollment of girls. Under the AF 300 additional middle schools and 160 upper secondary schools will receive grants to implement the reformed program on sciences and mathematics.

18. **ICTs to Support Mathematics Outcomes.** Lastly, a pilot will be introduced focused on technology based teaching methods of mathematics and science, which will be introduced in 230 schools including 100 lower secondary schools (including BSTs), 30 upper secondary schools and 100 primary schools. Though there have been some ICT approaches used in Senegal, and a general willingness of the government to pursue ICTs in education, including placing pedagogical integration as a key priority in the education sector policy letters, integration of technology into schools has generally been small scale and ad-hoc in nature. By leveraging experience gained through ongoing initiatives such as the Digital Literacy Program (DLP) equips primary schools with technological devices, and secondary schools with computer labs, and Intel Teach, a teacher training program focused on technology, and innovative approaches elsewhere on the continent which would be relevant in the context of Senegal, the project seeks to introduce technology-based learning approaches.

19. The intervention will build on the lessons learned from the Progressive Science Initiative-Progressive Math Initiative (PSI-PMI) approach in neighboring Guinea, implemented by the New Jersey Center for Teaching and Learning (NJCTL) as a part of a World Bank funded education sector project, as well as the ICT innovation in Kenya. PSI-PMI is characterized by a combination of free digital content, instructional materials, and assessment tools to teach sequenced mathematics and sciences courses. The interactive approach combines direct instruction mixed with small group discussion and problem solving, and is supported by integration of technology use in classrooms, including for example utilization of smart boards, tablets, and clickers to facilitate interactive learning. The Kenya example, a partnership between the government, donors and Intel, promotes the use of mobile labs within classrooms, and innovation or “maker spaces,” coupled with intensive continuous professional development (CPD) to make technology available in schools and ensure teachers are well equipped to integrate it effectively into teaching approaches.

20. The project will support the targeted training of teachers to use ICTs for their own professional development, integrate ICTs in the classroom for improved teaching and learning, and support ICT rich classrooms and schools. In-service teacher training will be coupled with ICT integration into the 230 pilot schools. The aim is to carefully integrate teacher pedagogy with technology use to ensure that the introduction of technology facilitates better teaching approaches to mathematics and science, rather than introducing technology as an end in and of itself. The aim is to start with this smaller percentage of public schools and then scale up successfully at primary and secondary levels. The project will include provisions for professional development, the development of digital content and accompanying hardware to deliver the content, and a sustainable strategy of maintenance and technical support. Given that some of the digital content that will be adapted is available only in English there is also a small amount of funding set aside to facilitate translation of content into French.

21. The aim is to carefully integrate teacher pedagogy with technology use to ensure that the introduction of technology facilitates better teaching approaches, rather than introducing technology as an end in and of itself. The aim is to build on the work undertaken in current initiatives such as DLP to ensure that “hard and soft” costs are practical affordable and sustainable, the aim of which is to utilize technology as a means to enhance interactive classroom learning, and that is focused heavily on age and subject relevant content. Thus, the focus will be on tapping into high quality open resources, and technologies which support teachers and their ability to create interactive lessons (e.g. digital lessons, student polling devices, etc.) with careful consideration of whether the hardware (e.g. connective, computers, etc.) is feasible as well as the software (e.g. accompanying trainings and feedback over a sustained period).

22. **Sub-component 1.4 [Revised] Improving pre-service training and in-service teacher and headmaster training (changed from “Improving pre-service teacher training”). US\$13.1 million (US\$8.1 million Original Financing, US\$5 million Additional Financing).** This sub-component will (i) further improve the pre-service teacher training system which began under the original project; (ii) introduce a revitalized in-service teacher training system for continuous professional development; (iii) introduce a classroom observation tool (COT); and (iv) introduce in phased in training of school directors to build skills as pedagogic leaders.

23. Regional Centers for Training of Education Staff (*Centre regional de formation du personnel de l' education - CRFPEs*) are responsible for pre-service teacher training. Under the AF external expertise would be mobilized to help the CRFPEs develop additional services, including (i) pre-service teacher training at the middle school level, (ii) in-service training of teachers, including the link with the technology-based content above, and (iii) development of teacher training curriculum on physical exercise/sports and Culture. In Senegal, particularly at the primary level, there is no systematic professional development system for current teachers, and the quality and availability of in-service teacher training programs is not well known. At the same time, the role of school headmasters, particularly at the primary level, is often viewed as that of purely school management and operations, rather than taking the role of an instructional leader. Evidence shows that the most effective schools are led by directors who are equipped to (i) evaluate their own school performance (using various tools including school level data, teacher observation, etc), (ii) provide feedback to teachers, (iii) assess professional development needs, and (iv) direct resources (including and perhaps especially instructional resources) to where they are needed most. A two-pronged approach of assessing and building the supply of quality in-service training opportunities, and capacity building for headmasters will be taken so that not only are quality professional development opportunities made available to teachers, but that headmasters are well equipped to assess areas where professional development is needed most, and appropriately direct school resources to those critical teaching areas through the quality improvement plans. Given the critical importance of non-cognitive skills, consideration of professional development opportunities which include but extend beyond cognitive skills testing, including citizenship and character development, will be explored, with a more holistic focus on “developing the whole child.”

24. Activities that will be financed include: (i) survey of current in-service teacher training; (ii) technical assistance and training of trainers in CRFPEs to introduce in-service teacher training; (iii) equipping of CRPEs; (iv) introduction of a classroom observation tool (COT) which aims to identify classroom practices and areas of improvement for teachers. The tool as well as important training on its utilization will be introduced to inform the in-service teacher training program development and effective

school management and (v) teacher training. To ensure quality outcomes, the project proposes to train inspectors and school head masters/directors to allow them to assess teacher performance and provide practical feedback as described above. In sum the AF will support the training of 16 Regional Education inspectors, 59 district education inspectors, at least 8000 school headmasters and 25,000 teachers (30 percent of the total number of teachers). The project will aim to support a study to evaluate the current system of appointing headmasters to ensure standard criteria are utilized.

Component 2. Strengthening Equity in Access to Education. US\$33.5 million (US\$27.5 million Original Financing; US\$6 million Additional Financing)

25. **Sub-component 2.1. [Completed] Construction and rehabilitation of schools in areas lagging and in underserved areas. US\$20.5 million (US\$20.5 million Original Financing, No Additional Financing).** This sub-component will not continue under the AF.

26. **Sub-component 2.2. [Scale up] Grants for Results to Selected Daaras. US\$10 million (US\$7 million Original Financing, US\$3 million Additional Financing).** The original project financed integration of foundational skills into the curriculum of 100 daaras through PBCs. In its next phase the project will finance an additional 400 daaras based on the existing selection criteria under the parent project, which includes an application process and consideration of the regional distribution of supported daaras. A recent USAID report¹⁴, based on the household survey, provides extensive qualitative information on the reasons for the non-schooling of children in Senegal. Among the reasons given by heads of household to justify the non-schooling of their children, religious and cultural beliefs are the most common reasons given (58.7 percent). The USAID report also shows: (i) a gap between the offer of “conventional” education and the educational expectations of the populations who give a central place to the learning of religion; and (ii) a community perception that formal schools introduce cultures and ideals contrary to the traditional local values which are believed to be of critical value. A performance evaluation was prepared by the National Research Institute for Education (INEADE), and the report is currently under review. A SIEF evaluation is also under way and should make it possible to draw lessons on the daara reforms that will inform the equity agenda under the national strategic plan (PAQUET).

27. As under the original project, the AF will support the new daaras in preparing their PBCs, which include explicit mathematic and reading outcome targets, provisions for school feeding and health, and a tentative budget. Daaras will receive allocations based on performance and paid in two parts: one initial allocation at the beginning of the academic year upon approval of the PBCs and the second half way through the year after a mid-year evaluation. The manual of procedures will define the allocation criteria, implementation and reporting process.

28. **Sub-component 2.3. [NEW] Engaging out of school children. US\$3 million AF.** Although progress has been made in access to education, an estimated nearly 1.5 million children ages 6-16 years are not currently attending school. USAID has recently finalized a large national census on out of school aged children in Senegal to assess reasons for not attending school, including the factors that contribute to high dropout rates, delayed entry, and never attending. The study showed that in total, in 2016, 1,498,286 children and young people age 6 to 16 years old are out of the educational system, or 37 percent of this age group who are supposed to be enrolled under Senegalese law. In other words, more than one

¹⁴ USAID Out-of-School Children Study published in June 2017 (in French : *Étude nationale sur les enfants et les jeunes hors du système éducatif au Sénégal*).

in three children age 6 to 16 were out of the education system in 2016. The school aged population is dominated by children who have never been to school (78 percent). This may be partly attributable to late starts, in which children begin attending school at age 7, 8 or 9, rather than 6 as required, however this does not explain the extremely large out of school population. Building upon this evidence base, the AF will pilot an accelerated program for young out of school children (ages 7-12) to allow them to integrate back into the school system. This “catch up” program would allow students to transition back into the system and is directly aligned with the Government’s Fast Track Program which is focused on integrating school aged children back into the system in the five regions¹⁵ with the lowest enrollment rates.

Component 3. Supporting Project Management and Capacity Building. US\$14.4 million (US\$7.4 million Original Financing; US\$7 million Additional Financing)

29. **Sub-component 3.1. [Scale up] Project implementation and management. US\$3.04 million (US\$2.04 million Original Financing, US\$1 million Additional Financing).** The sub-component will be scaled up to consider the extended scope of responsibilities under the project and the longer project duration under the AF.

Sub-component 3.2. [Scale up] Development of a monitoring and evaluation system. US\$8 million (US\$4 million Original Financing, US\$4 million Additional Financing). Building on the progress made under the current project, the AF will support an expanded EMIS system with the aim to have a fully integrated data management tool which captures the entire sub-sector. Ultimately, the goal is to be able to comprehensively monitor primary and secondary education data at school district, regional and national levels. A Service Delivery Indicators (SDI) exercise will also be supported under the AF to provide better data on teacher behavior and performance. The AF will continue to support the Internal Audit Department (*Inspection Interne*) of MoE. The AF will also support a capacity building in the area of policy analytics at the ministerial level for more evidence based decision making.

30. **Sub-component 3.3. [Scale up] Support to decentralization of the education sector. US\$3 million (US\$1 million Original Financing, US\$2 million Additional Financing).** The AF will continue to fund decentralization of the sector through the ongoing phased in capacity building approach for continued professionalization of the sector. As under the original project it will continue to finance technical assistance, training and equipment for regional and district authorities to be able to develop the following functions: human resources, leadership, management, financial management, planning, M&E, and communication and internal control. It will also support the establishment of an effective platform for dialogue between the Ministry and unions with the aim to strengthen the capacity of union actors to play a more decisive role in the education sector policy dialogue. This sub-component is flexible in identifying and supporting specific capacity building activities need to help strengthen regional, district authorities and national authorities, as these entities are heterogenous. The MoE will identify activities annually and submit them for review by the steering committee.

¹⁵ Kaffrine, Diourbel, Louga, Matam and Tambacounda

Annex 3. Systematic Operations Risk Rating Tool

Senegal: Quality Improvement and Equity of Basic Education Additional Financing

Risk Category	Rating (H, S, M, L)
1. Political and Governance	Moderate
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Moderate
7. Environment and Social	Low
8. Stakeholders	Moderate
9. Other	
OVERALL	Moderate

1. The risk ratings are not expected to change substantially for the additional financing. There are substantial risk ratings for technical design of the project, and institutional capacity. All others are assessed as moderate or low. Together, this results in a moderate risk rating overall. The substantial risk ratings are described more fully below.

2. **Technical Design of Project or Program.** The design of the project remains technically complex given that there are pilot programs being tested in addition to the continuation of the system of performance based contracts and quality assurance mechanisms. However, the strong commitment from the Ministry of Education and key stakeholders, as well as skilled staff with many years of implementation experience helps to mitigate this risk. Specifically, the project benefits substantially from the five past years of experience accumulated in management of performance based contracts (PBCs). Furthermore, the AF builds on a solid monitoring and evaluation system and the benefits from the CIDA technical assistance under the original project which was dedicated solely to building the technical and managerial capacities of the IA and EIF so that they have adequate data management skills to ensure proper M&E systems are in place, which remains the foundation for successful monitoring of project implementation, and evaluation of access and learning outcomes beyond the project.

3. **Institutional Capacity for Implementation and Sustainability.** Although the MoE both at central and local levels is staffed with skilled people to manage the project, the institutional capacity for implementation is still assessed as substantial given that the decentralized approach to financial management and monitoring and evaluation necessitates regular training at multiple levels. Further, given the project complexity, capacity building exercises are necessary, as there will be pilots in the additional

financing which add to the project's technical complexity. Institutional capacity building is built into the project, as is technical assistance where needed (in developing a new continuous professional development – CPD – program) to mitigate this risk. Regular troubleshooting throughout the current project to address any project bottlenecks related to the performance based contracts have helped to address any challenges.

4. **Fiduciary.** Financial management and procurement risks, when coupled with mitigation measures are assessed as moderate. Following a mission in November 2017 which found that financial management was encountering some difficulties, due mainly to payments of irregular expenditures and delays in reimbursement of ineligible expenditures from the previous review, key sets of mitigation measures were formulated so as to ensure that overall financial management of the project is strengthened. The following mission in February 2018 found that the FM action plan to mitigate risks was being implemented and that the external auditor had been recruited and expenditures were being reimbursed as required. At the same time, capacity building measures of FM and procurement staff, including training have been built into the additional financing to mitigate residual risks.

Annex 4. Implementation Arrangements

Senegal: Quality Improvement and Equity of Basic Education Additional Financing

I. Overall coordination

At the central level

1. **Donor Coordination.** Coordination in the education and training sectors between donors, the government and non-governmental organizations (NGOs) is well established. Collaboration takes place through the Education Sector Group, led by UNESCO. The group meets regularly, shares information, performs joint supervision missions, and coordinates sector interventions. The MOE and donors will continue to hold monthly meetings to monitor progress on implementation of the education sector strategy. Participating donors provide harmonized support for the same policy directions, and education program. They organize joint supervision missions twice a year using the same assessment documentation and common performance indicators and they participate in the joint annual review meeting organized by the government with all stakeholders. They are invited to planning meetings and discussions on evaluations and other studies carried out during the year in addition to formal supervision missions.
2. **Steering Committee.** The Minister of Education will have the overall responsibility for sector and policy coordination, and he and/or his designee will chair the Steering Committee consisting of representatives of relevant ministries' departments and directorates, local municipalities, rural communities, council of regions and parents' associations involved in the Project. The Directorate of Planning and Education Reform (DPRE) will be the secretariat of the Steering Committee.
3. **M&E.** The DPRE will be responsible for coordinating the overall project and for the M&E system. The DPRE is the department within the Ministry responsible for policy dialogue with development partners and is also responsible for the coordination of the education development plan and donors' intervention. The DPRE is well staffed and organized and has substantial experience in coordinating donor-financed projects including those funded by IDA and GPE. The DPRE will be assisted by a technical coordinator tasked with overseeing the day to day implementation of the project.
4. The Directorate of Elementary Education (DEE) and the Directorate of Middle and General Secondary Education (DEMSG) will be in charge of the technical coordination of the primary education initiatives and middle schools' initiatives respectively. The DEE will oversee coordination with other initiatives to improve early grade reading as well as USAID initiatives supporting the government effort under the National Reading Improvement Program. The DEMSG, will coordinate Sub-component 1.3. Implementation of a national program to develop sciences and mathematics teaching and learning at the middle school level. The DEMSG will develop and oversee the implementation of the PBCs with the BSTs, upper secondary, and middle schools to improve for the quality of sciences teaching and learning.
5. **LINEQ.** For implementation of the two LINEQs a new governance framework will be implemented for each institution, with a board of directors composed of public and private sector representatives. Board members from the private sector will constitute, at a minimum, 50 percent of board membership and will be drawn from relevant professional and civil society organizations. Management

personnel will be recruited on a competitive basis and each institution will sign a PBC to ensure accountability for results.

At the regional level

6. The project activities in each region will be coordinated by the Academic Inspectorates (IAs). The IAs are responsible for coordinating the development of the education system in their regions. The head of each IA, the Regional Academic Inspector, is the representative of the Minister of Education in each of the 14 regions. The Regional Academic Inspector has the rank of a General Director and reports to the Minister. The IA will oversee the implementation of sub-component 1.1. Performance-based financing education grants and sub-component 1.2. School quality and management improvement.

II. Technical implementation

At the central level

7. The central level will oversee the coordination, M&E, and capacity-building activities. The DPRE will be tasked with overseeing capacity-building activities under Component 3. The National Research Institute for Education (INEADE) will be responsible for the learning assessment and technical support activities to the decentralized levels. DEE and DEMSG will be responsible for monitoring activities implemented by IA, IEFs and schools and for providing technical support on an as needed basis. The activities of the Project will be verified through ex-post controls. The Project will assess and build the organizational and technical capacities of the Inspection Interne of the MoE (regular department in charge of the internal control). Until this department is fully upgraded and operational to carry out by itself the internal auditing activities of the Project, which is expected by the end of the second year, it will be supported by a short term internal auditor consultant.

At the decentralized level

8. Each IA will be responsible in their respective region for: (i) signing the PBC with each IEF and monitoring its implementation; (ii) signing PBCs with upper secondary; (iii) the preparation of a progress report for the project in the region.

9. IEFs will be responsible for: (i) developing the district quality improvement plans, negotiating with the IAs, and implementing their PBCs; (ii) contracting with daaras and BSTs and monitoring the achievement of outcomes; and (iii) negotiating and signing a QIA with each of the public schools (primary and middle school PBCs) in the districts and monitoring and supporting its implementation.

10. **Schools.** Each school will oversee the implementation of its QIA.

11. **School Management Committees (SMCs)** will manage the Grants provided based on the QIA. Schools are responsible for ensuring that the QIA is adequately implemented. The SMCs are also tasked with monitoring and reporting on appropriate use of funds at the school level, in addition to external monitoring which takes place.

12. **The Directorate of Administration and Management** (DAGE - *Direction de l'Administration Générale et de l'Équipement*) will be in charge of the overall FM of the project. The main responsibilities of the DAGE include: (i) financial management of central level activities; (ii) management of funds transfers to the IAs; (iii) centralizing and consolidating financial reporting; and (iv) providing technical support and training to financial managers and accountants at the regional level. The DAGE will be assisted by a financial management team including a senior accountant and supporting accountants. The TORs of the FM team will be prepared and submitted to the World Bank for approval.

III. Financial Management

13. **At the decentralized level, the DAGE will delegate the FM responsibility to IAs and IEFs** for all activities implemented at local level. In each IA, there is a financial management team (COFC - *chargés des opérations financières et comptables*) which is responsible for resource management under the leadership of the Academic Inspector. IEFs and schools will receive resources for the implementation of their activities financed with the PBC or the QIA. Each IEF has a resource manager (gestionnaire) who is in charge of the financial management at IEF and schools level and reports to the IA. The IAs will report to the management team at the central level. For additional financing activities, all COFCs and resource managers are required to have acceptable skills and sign PBCs.

14. The financial management arrangements for the additional financing will be based on the existing arrangements in place under the ongoing project. The interim un-audited financial reports for the on-going project have been submitted with acceptable quality. However, the overall FM performance of the original project was rated as Moderately Unsatisfactory during the supervision undertaken on November 2017 and the FM risk was assessed as Substantial. This was mainly due to (i) payments of irregular expenditures; (ii) ineligible expenditure from the previous review not yet reimbursed; insufficient documentation of expenditures; and (iii) the delayed recruitment of the external auditor. However, following a mission on February 2018 it was confirmed that the FM action plan to mitigate the risk are being implemented. The external auditor has been recruited, identified undocumented expenditures are being documented and ineligible expenditures are being reimbursed. During this time, the need for reinforced capacity of FM was sited and is built into the AF as part of risk mitigation.

15. As a result of above mentioned financial management issues, the following mitigation measures should be taken:

- (i) recruitment of FM responsible, internal auditor management controller and accountant with experience and qualification satisfactory to the World Bank;
- (ii) COFC and resource managers in charge of the FM in the IA and IEF should have qualification satisfactory to the World Bank and sign PBC;
- (iii) The DAGE should also have a PBC;
- (iv) The software will be updated to include the AF; and
- (v) The financial management manual will be updated.

16. The conclusion of the assessment is that the financial management arrangements will meet the World Bank's minimum requirements under OP/BP 10.00 once the mitigation measures will be implemented. The residual risk rating for DAGE will be **Moderate**.

17. The following are the financial management arrangements for the project:

18. **External audit.** The TOR of the original project will be expanded to include the additional financing activities. Consolidated Audited Financial Statements (original project and additional financing) will be submitted to IDA within six months after year-end. The auditor will issue an opinion on the Audited Project consolidated Financial Statements and in compliance with International Federation of Accountants and a specific opinion on additional activities will be required.

19. The external auditors will prepare a management letter giving observations and comments, and providing recommendations for improvements in accounting records, systems, controls and compliance with financial covenants in the financing agreement.

20. **Internal control arrangements.** The existing manual of administrative financial and accounting procedures will be updated to include additional financing activities and clearly define FM procedures, operations documentation and controls process. The internal inspectorate will continue to include the project in his annual program, however an internal auditor will be recruited to support the project and the internal inspectorate activities.

21. **Accounting arrangements.** The SYSCOHADA is the current accounting standards used in Senegal and is currently utilized for the on-going project. The DAGE has a multi-projects computerized accounting system which will include the additional financing. However, the accounting software should be updated to facilitate easier clearance and monitoring.

22. **Reporting and Monitoring.** The un-audited Interim Financial Report (IFR) format of the ongoing project will be updated to include the additional financing and DLI reports. It will comprise sources and uses of funds according to project expenditures classification, a comparison of budgeted and actual project expenditures (commitments and disbursements) to date and for the quarter. The financial reports will be submitted to the World Bank within 45 days following the end of each calendar quarter. The DAGE will produce the project's annual financial statements, which will include the additional financing and will comply with SYSCOHADA and World Bank requirements.

23. **Budgeting arrangements.** The budgeting process and monitoring will be defined in the updated Administrative and Accounting Manual of Procedures. Periodic reports of budget monitoring variance analysis and recommendations should be prepared by the DAGE FM team on a quarterly basis.

24. **Disbursement arrangements and flow of funds.** Disbursement for the project will follow the existing disbursement arrangements. Disbursements under the ongoing project are IFR based. Direct payment method will apply as appropriate. A separate designated account (DA) will be opened at an acceptable commercial bank to facilitate payment for eligible expenditures.

IV. Procurement

25. The Borrower will carry out procurement under the proposed project in accordance with the World Bank's "Procurement Regulations for IPF Borrowers" (Procurement Regulations) dated July 2016 under the "New Procurement Framework, and the "Guidelines on Preventing and 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 other provisions stipulated in the financing agreements.

26. The procuring entity, the bidders, and service providers (i.e. suppliers, contractors and consultants) shall observe the highest standard of ethics during the procurement and execution of contracts financed under the project in accordance with paragraph 3.32 and annex IV of the Procurement Regulations.

27. The Borrower shall prepare and submit to the World Bank a General Procurement Notice (GPN) and the World Bank will arrange for publication of GPN in United Nations Development Business (UNDB) online and on the World Bank’s external website. The Borrowers should also publish it in at least one national newspaper.

28. The Borrower shall publish the Specific Procurement Notices (SPN) for all goods, non-consulting services, and the requests for expressions of interest on their free-access websites, if available, and in at least one newspaper of national circulation in the Borrower’s country, and in the official gazette. For open international procurement selection of consultants using an international shortlist, the Borrower shall also publish the SPN in UNDB online and, if possible, in an international newspaper of wide circulation; and the World Bank arranges for the simultaneous publication of the SPN on its external website.

29. The procurement activities for the project will be done using the existing institutional arrangements for the implementation of the original project. Namely, for technical implementation, each IA will be responsible in its region for: (i) signing the PBC with each IEF and monitoring its implementation; and (ii) the rehabilitation of daaras. The DAGE will take care of the procurement of equipment and consulting services that are not directly related to the execution of the rehabilitation of daaras as well as for the schools' auxiliary services.

Institutional Arrangements for Procurement

30. **Procurement Risk Assessment.** An assessment of the capacity of the structures in charge of procurement, including the DAGE, IAs and IEFs, to implement procurement actions for the project was carried out by IDA in November 2017 by The World Bank Office in Dakar. The assessment, which is an update of the assessment for the Quality Education For All (QEFA) 2, Education For All – Fast Track Initiative (EFA-FTI) and PAQEED, reviewed the organizational structure for project implementation and the interactions between the project staff responsible for procurement and other technical staff and stakeholders during project implementation. The DAGE is familiar with both the national procedures and donor procedures, including those of the World Bank. The project will bring an additional workload that needs to be managed. There are risks of delays in project implementation and improper procurement that could potentially result in delays. The overall procurement risk without mitigation measures is assessed as substantial, however with the mitigation measures in place the overall procurement risk is moderate.

31. **Mitigation measures.** The following measures are proposed to mitigate these risks and reduce their classification from substantial to moderate: i) train the Staff involved in procurement activities in the NPF; (ii) update the manual of procedures to include the new provisions of the World Bank regulations; and (iii) have an acceptable procurement filing system in place during project implementation.

32. **Procurement Manual.** Procurement arrangements, roles and responsibilities, methods and requirements for carrying out procurement shall be elaborated in detail in the Procurement Manual which may be a section of the PIM.

33. **Procurement methods.** The Borrowers will use the procurement methods and market approach in accordance with the Procurement Regulations.

34. Open National Market Approach is a competitive bidding procedure normally used for public procurement in the country of the Borrower and may be used to procure goods, works, or non-consultant services, provided it meets the requirements of paragraphs 5.3 to 5.6 of the Procurement Regulations.

35. Operational costs financed by the Project, if any, would be incremental expenses, including office supplies, communication costs, rental expenses, utilities expenses, consumables, transport and accommodation, per diem, supervision costs, and salaries of locally contracted support staff. Such service needs will be procured using the procurement procedures specified in the PIM accepted and approved by the World Bank.

36. **Project Procurement Strategy for Development (PPSD).** As part of project preparation, the Borrower (with support from the World Bank) has prepared its PPSP which describes how fit-for-purpose procurement activities will support project operations for the achievement of project development objectives and deliver value for money. The procurement strategy is linked to project implementation. It considers institutional arrangements for procurement; roles and responsibilities; thresholds, procurement methods, and prior review; and the requirements for carrying out procurement. It also includes a detailed assessment and description of state government capacity for carrying out procurement and managing contract implementation, within an acceptable governance structure and accountability framework. It is informed by a market analysis, i.e., the behaviors, trends and capabilities of the market. The activities of this project comprise rehabilitation of daaras, the establishment of the two LINEQs, procurement of goods and consulting services improve the quality of education.

37. The market in Senegal, with a population of around 14,000,000 inhabitants is of a middle size. The local operators are able to satisfy demand. However, the international approach may be envisaged and open competition used.

38. **Procurement Plan.** The procurement plan covering the first eighteen (18) months of project implementation was approved by the World Bank during project negotiations. The procurement plan will be updated by the procuring entity on an annual or as-needed basis to reflect actual project implementation needs. Updates of the procurement plan will be submitted to the World Bank for No Objection and the PPSP updated accordingly.

Table 4.1 Procurement Plan Summary

Components	Contract Title, Description and Category	Estimate Cost US\$	Procurement Approach/ Competition	Selection Methods	World Bank Oversight
Component 1 : Improvement of the quality of Basic Education	Translation of the management tool into local language	6,000	National / Limited	3 CVs	Post

Technical assistance to support science and mathematics reform (diagnosis)		12,000	National / Limited	3 CVs	Post
Construction of 2 high schools of excellence	Architectural studies and supervision	273,000	National / Open	QCBS	Prior
	Construction	8,518,000	National / Open	NCB	Prior
	Equipment	3,300,000	International / Open	ICB	Prior
Upgrade of Diourbel Scientific High School of Excellence	Infrastructures and organizational audit and monitoring	136,500	National / Open	QCBS	Prior
	Rehabilitation and upgrading work	1,100,000	National / Open	NCB	Post
	Equipment	600,000	National / Open	NCB	Post
ICT innovation to support math outcomes training, equipment, curriculum	Acquisition of digital resources and training of trainers	500,000	In International / Open	ICB	
	Technical assistance to produce digital resources and training of trainers	200,000	National / Open	EOI	Prior

Short lists composed entirely of national consultants: Short lists of consultants for services estimated to cost less than USD 300,000 equivalent per contract may be composed entirely of national consultants.

Annex 5. Economic and Financial Analysis

Senegal: Quality Improvement and Equity of Basic Education Additional Financing

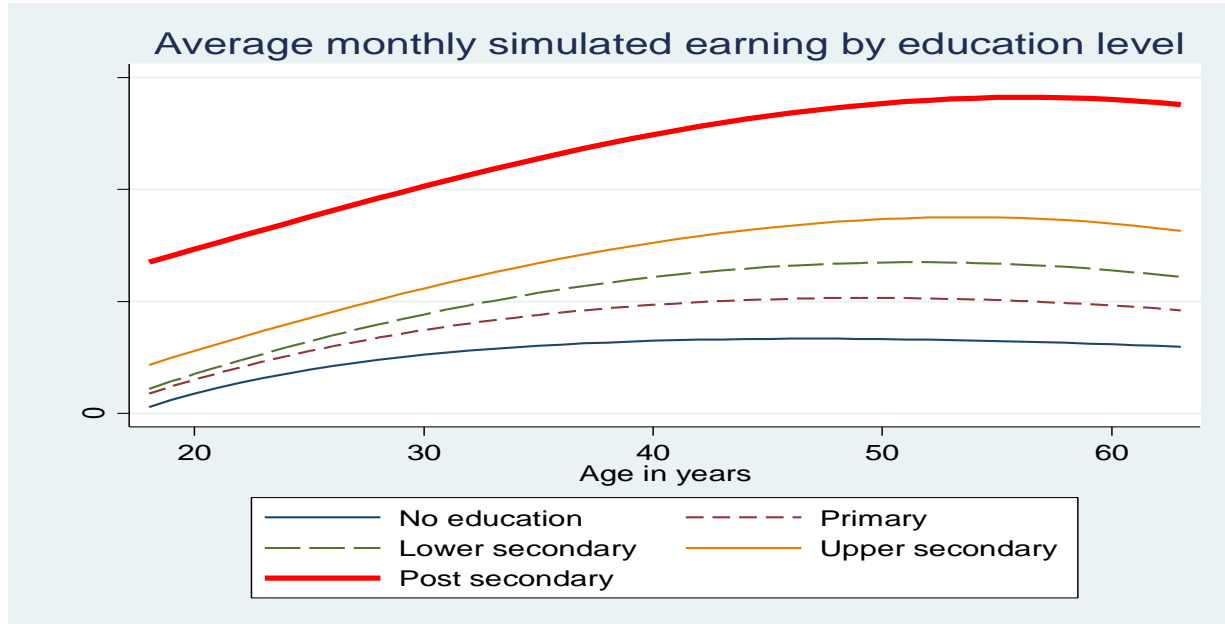
1. This section provides the economic rationale for investment in education in Senegal through an analysis of the correlation between educational attainment of individuals and labor market outcomes, as well as the effect of education on equity and poverty reduction. This section also estimates economic internal rates of return (IRR). The annex is divided into four parts: (i) external efficiency of education, to investigate whether there is a positive signal in Senegal's labor market by estimating the rates of return to education; (ii) quality and quantity of education in the context of Senegal's economic growth and vision of development; (iii) cost-benefits analysis of the proposed project based on key components; (iv) fiscal sustainability of the project; and (v) the rationale for public engagement in education and the value added of the World Bank.

Economic context and labor market outcomes

2. **Education is a strong predictor of poverty reduction, formal employment, and economic growth.** Many studies argue that participation in education is an investment in human capital made with the expectation of earning returns later in life (Becker, 1964; Smits and Hoşgör, 2006). At the macro-social level, more education tends to improve productivity and income, and economic development implies a better quality of life (Harbison and Myers, 1964). At the micro-social level, more education tends to increase the likelihood of a healthier and better-nourished population and greater autonomy for women (Martin and Juarez, 1995, and Sanderson, and Lutz, 2010). Moreover, the education of women is important for a wide range of demographic behavior, as it affects fertility, mortality, and migration (Jejeebhoy, 1995). Building on this evidence, this section pays close attention to the need for quality education for employability, equity, and prosperity.

3. **Education qualifications are a strong predictor of earnings in Senegal.** Figure 5.1 shows the average simulated monthly earning by age and level of education level. It not only presents the phenomena that better education attainment is financially rewarded in the labor market, it also reveals two more interesting facts. First, the initial wage gap among different education levels in the early years of entering the labor market increases as the workforce gains more years of experience; secondly, the workforce with the highest education level (e.g., post-secondary education) is rewarded most, and the wage gap between individuals with post-secondary education and individuals with upper-secondary education is much wider than the wage gap between individuals with other education levels.

Figure 5.1: Monthly earnings simulated by education level and age

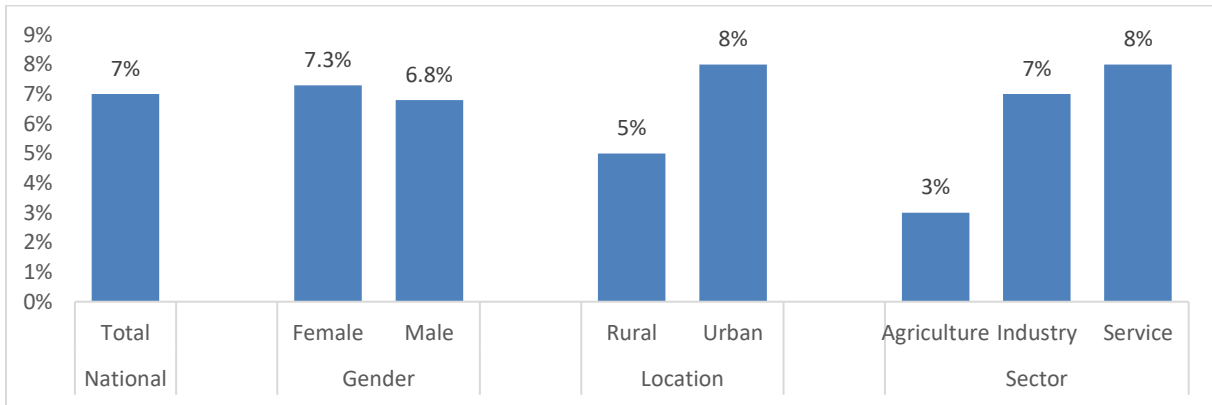


4. **Consistent with international evidence, education is a positive and profitable investment in Senegal.** At the national level, one additional year of schooling increases income by 7 percent. Figures 5.2 and 5.3 present estimates from the Mincerian regression, by gender, geographical location, and employment sector, and by level of education, respectively. Individuals with higher level of education receive better economic return and the rate of return increases with each level of education.

5. **The rate of return to education increases with each level of education.** Compared with an individual with no education, an individual who has primary education earns 18 percent more, and 49 percent more when he has lower secondary education, as shown in figure 5.3. This rate of return increases as the level of education does. The rate of return of individuals with upper secondary education is 88 percent and is even higher for individuals with post-secondary education (143 percent). This is consistent with international findings.

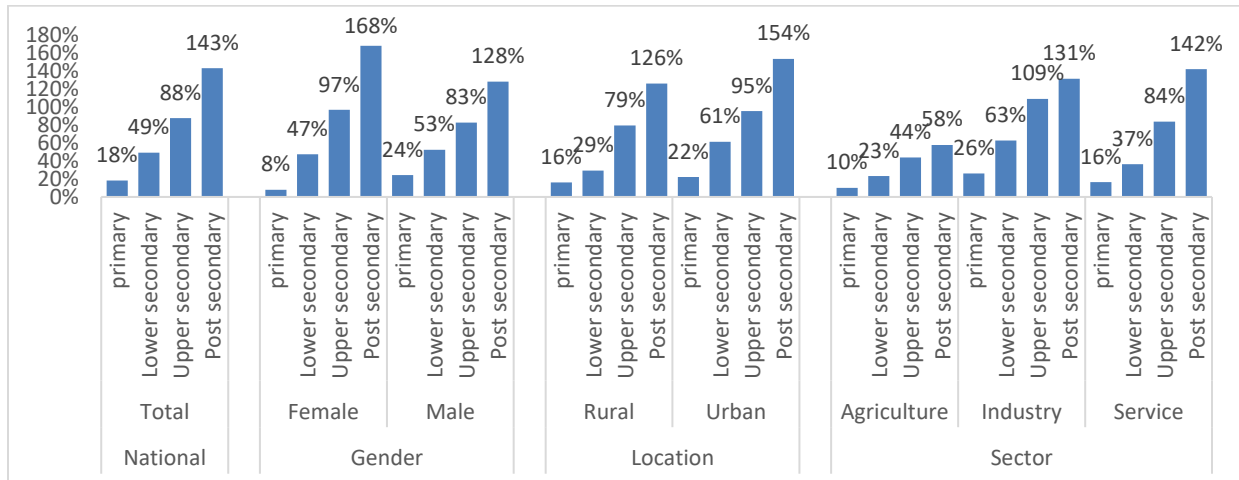
6. **Educated women are more likely to receive better returns than educated men, thereby reinforcing education as a tool to foster equality and promote inclusive growth.** Investment in girls' education is profitable, especially investment in girls' attainment of higher education (e.g., upper secondary or above). The rate of return of education for men is higher at lower levels of education. For instance, the rate of return is only 8 percent for women with primary education compared with women with no education; but for men with primary education it stands at 24 percent as opposed to men with no education. The trend reverses at higher level of education. For example, the rate of return is 97 percent for women with upper secondary education while it is 83 percent for men with the same level of education.

Figure 5.2: Rate of return on additional years of schooling



Source: ESPS 2011

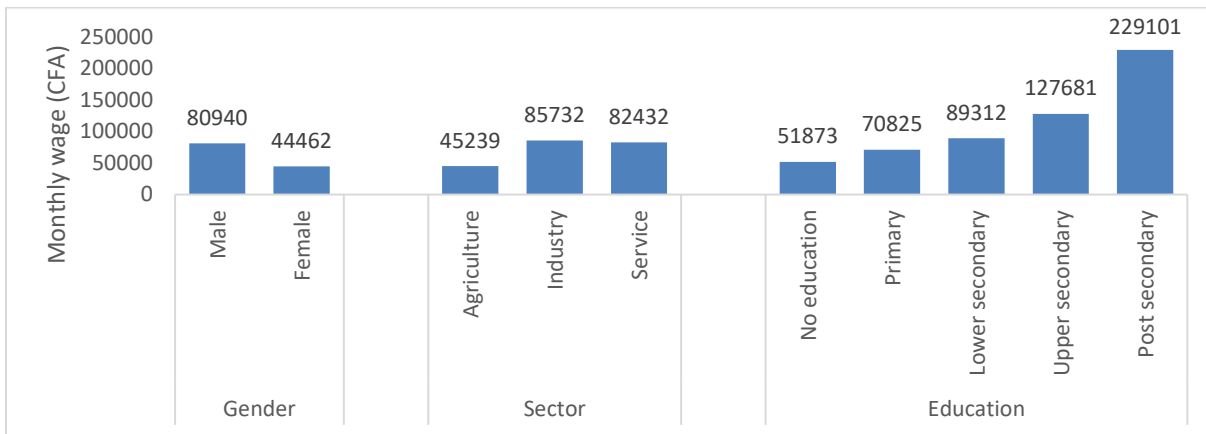
Figure 5.3: Return of return on level of education



Source: ESPS 2011

7. **Education level directly affects a person's welfare and income. As mentioned above, higher education attainment is positively correlated with higher earnings in the Senegal labor market.** As educational achievement increases, the likelihood of a person to be poor declines, underlining education's role in poverty reduction. In Senegal, an individual without any schooling earns approximately CFA 50,000 a month, whereas the average monthly income is about CFA 70,000 for an individual with primary education and CFA 90,000 for an individual with lower secondary education. An individual with post-secondary education will earn more than four times the income of an individual with no education.

Figure 4.4: Monthly earning (CFA), by gender, sector, and education level



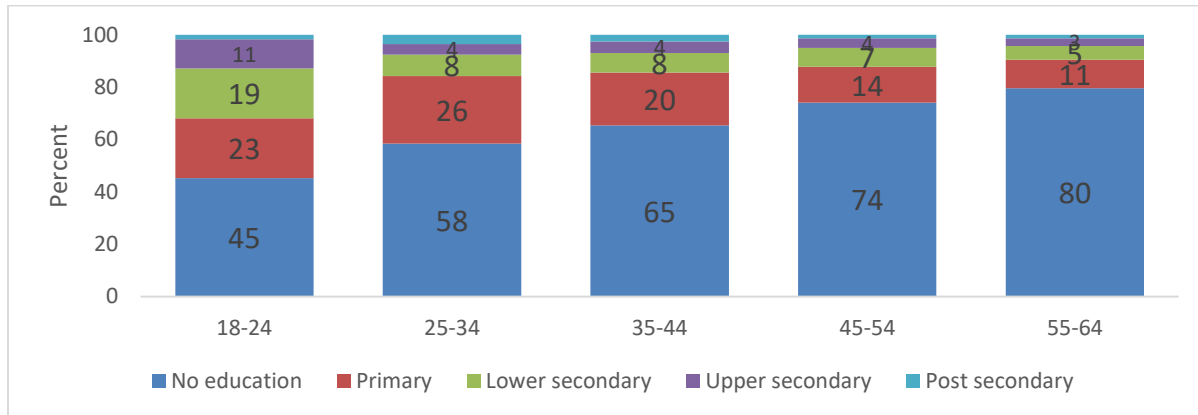
Source: ESPS 2011

Equity and quality of education

8. **Educational attainment of the working age population in Senegal is low and may have substantial negative implications for the country's growth pattern and global competition.** As depicted in figure 5.5, about 60 percent of the working age population (18-64 years old) has no education, and for the older cohort (above 45 years), the proportion with no education is approximately 75 percent. Likewise, for the younger cohort (18-24 years), about half have never been to school. Additionally, only 11 percent of the working age population has a lower secondary level of education. The younger cohort has the highest share of individuals with lower secondary education level, standing at 19 percent, whereas the other cohorts only have a single-digit share of individuals with lower secondary education. At the national level, the proportion of the population with a post-secondary education level is only about 2 percent. Such low levels of education have an impact on the sustainability of economic growth, and is a key rationale for critical policy interventions to provide better access to quality education in the country.

9. **Senegal has recently joined the league of the fastest-growing economies in Sub-Saharan Africa (SSA) but this may not be sustainable if the low education rates continue.** Driven by progressively resurgent exports, the Senegalese economy has been expanding at almost 7 percent annually since 2015. Growth decomposition highlights the critical role of more competitive and diversified exports not only in the past three years, but starting from 2010, when the country reversed a historical trend of declining international competitiveness, although this positive effect was initially offset by large negative external shocks. The recent progress contrasts starkly with decades of paradoxically modest economic development, when Senegal's per capita GDP, remained below its level at independence, a phenomenon that is mostly unique to Senegal. This is because the economy was persistently stifled by high vulnerability to shocks, weak productivity and high rates of informality.

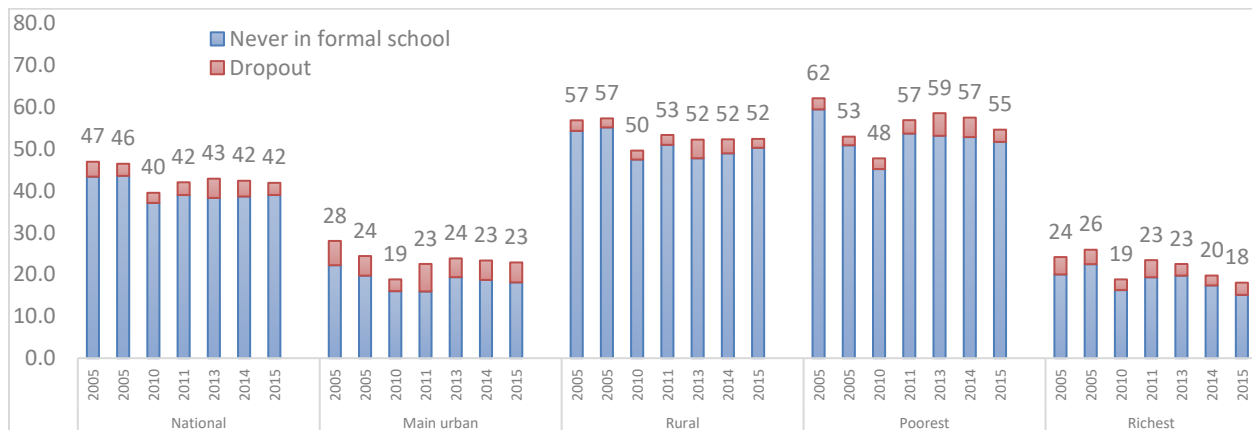
Figure 4.5: Share of working-age population by level of education level and age



Source: ESPS 2011

10. **The large share of out-of-school children is a serious concern for Senegal's human capital accumulation, inclusiveness and global competitiveness.** As shown in figure 5.6, more than 40 percent of Senegalese children aged 6-14 are out-of-school, of which the majority has never been in school. There has been no improvement in the rate of out-of-school for the past 10 years, and if this chronic issue is not adequately addressed, the low education profile of the labor force will persist and will negatively impact the positive trend of the current economic performance. Furthermore, the incidence of out-of-school disproportionately affects children from economically disadvantaged groups, rural areas and girls as shown below.

Figure 4.6: Trends of out-of-school rate for children age 6-14 by category

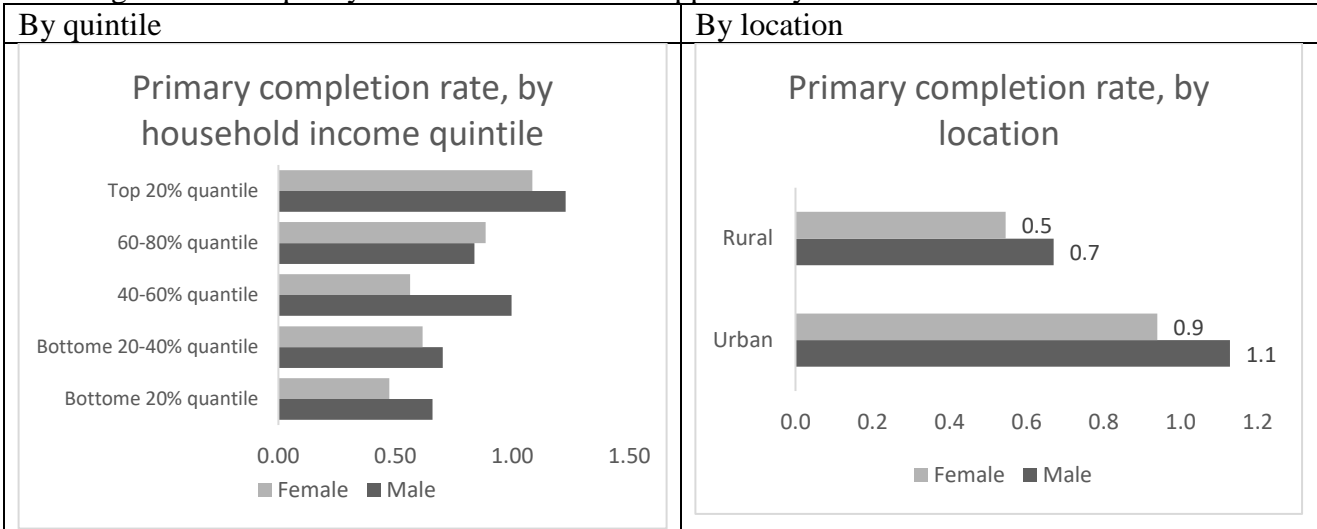


Source: DHS various years and ESPS 2005 and 2011

11. **Children from poor economic backgrounds are not only affected by the incidence of out-of-school but also have less opportunities to accumulate human capital, as opposed to children from wealthier households.** Figure 5.7 demonstrates that students from wealthier families have better completion rates than students from poor economic backgrounds. The primary completion rate (PCR) for students from the bottom income quintile is only about half of the PCR for students from the top income quintile. Although girls are catching up in terms of access, they lag behind when they come from poorer

households. For instance, in each income quintile (except the 60-80 percent quintile), the PCR for girls is always lower than that of boys. Furthermore, according to the 2013 census, the literacy rate was 56.7 percent among young men aged 20-24 and 43.5 percent among young women of the same age group. The inequality in access is likely a result of both economic and socio-cultural factors.

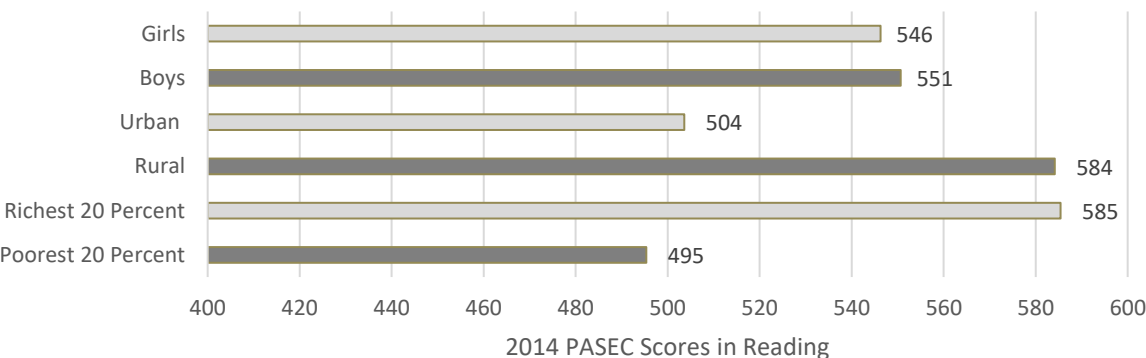
Figure 4.7: Inequality in access to education opportunity



Source: ESPS 2011

12. **Access to quality education is not inclusive in Senegal. Furthermore, the inequality in access in early years leads to inequality in the labor market outcomes at later stages.** Figure 5.8 shows reading outcomes based on the PASEC 2014 results. Children in rural areas have fewer access and learning opportunities than children living in urban areas, and girls from rural areas have less opportunities. The inequality in access to education in the early years will be reflected through lower skills in the labor market during adulthood: individuals with lower access to education during childhood tend to have relatively lower productivity and earnings, less opportunity to access more lucrative jobs in the industry and service sector.

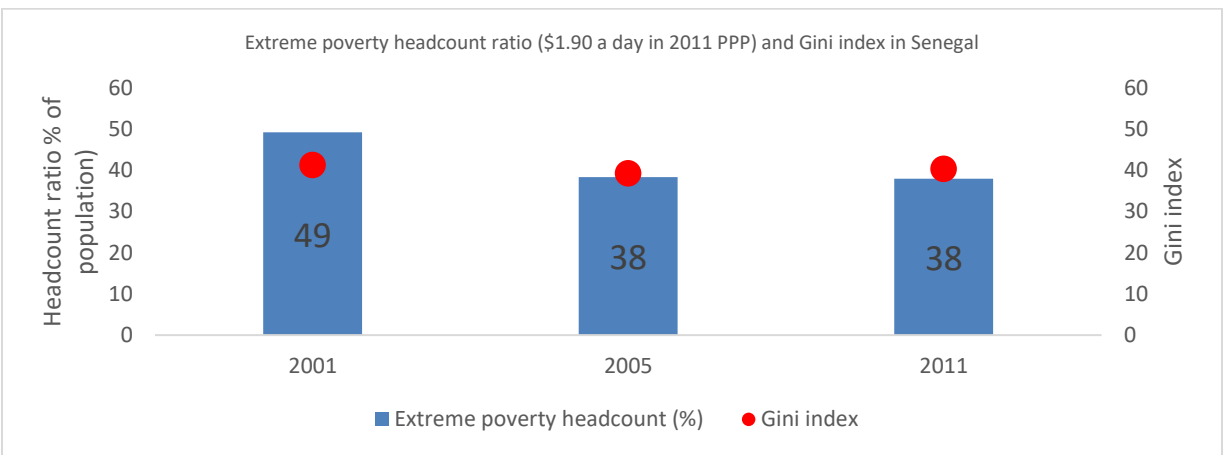
Figure 5.8: PASEC reading outcome by category, 2014



Source: PASEC

13. **Inequality of consumption, as measured by the Gini coefficient, has also stagnated over the decade, with small differences between the first and the second half.** The evolution of asset indicators suggests that inequality has not changed between 2011 and 2016. However, the very top of the distribution has become richer, with the top 10 percent demonstrating 8 times the wealth of the bottom 10 percent (versus 7 times back in 2011). In rural areas, inequality of assets has increased from 0.38 to 0.41, and the top decile now holds 14 times the wealth of the bottom decile (versus 11 times in 2011). Individuals with higher levels of education are more likely to engage in economic activity, work in paid employment and productive sectors and are less likely to fall below the national poverty line.

Figure 5.9: Poverty and inequality in Senegal, 2001-2011



Cost-benefit analysis

14. **The cost-benefit analysis is employed to estimate the benefit brought by the additional financing as well as the associated cost to assess the economic feasibility.** The analysis is tailored based on component-specific intervention design, beneficiary targeting, and quantifying the benefit. As such, three sets of separate cost-benefit analyses are conducted in line with the AF scheme: quality improvement (component 1), equity in access (component 2), and capacity building (component 3). In addition, weighted cost-benefit estimates are computed for the project total. The labor market outcomes (e.g., earnings, employment rate, etc.) and other indicators extracted from the survey data (e.g., school survival rate, etc.), together with the empirical evidence from the international experience (e.g., impact of educational intervention) are used as reference for the analysis.

15. Component 1 of the AF plans to enhance the quality of education for students. This component focuses on four sub-components: applying a performance based financing strategy (sub-component 1.1), school based management improvement (sub-component 1.2), developing sciences and math teaching at the middle school level (sub-component 1.3), and improvement in pre-service training and in-service teacher training (sub-component 1.4). A separate cost-benefit analysis is performed for each sub-component, and a comprehensive cost-benefit analysis is operated for the combined sub-components together.

16. Component 2 aims to strengthen equality in access to education. The previous section has shown that access to quality education is not inclusive in Senegal and that children in rural areas or children from disadvantaged households are more likely to be excluded from schooling. Component 2 will therefore finance specific projects to expand learning opportunities for children who would not have access to educational opportunities otherwise, for example, the students in daaras (sub-component 2.2) and out-of-school children (sub-component 2.3). Similarly, as above, cost-benefit analysis is conducted for each of the two sub-components separately as well as for the combined one.

17. The goal of Component 3 is also to enhance the quality of education by means of supporting project management and capacity building. It is composed of three sub-components: project implementation (sub-component 3.1), monitoring and evaluation (sub-component 3.2), and decentralization (sub-component 3.3). The cost benefit analysis is only conducted for the latter two sub-components due to the intangible benefit of the first sub-component. By using a similar methodology, a set of cost-benefit analysis (individual as well as comprehensive) is applied.

Assumptions for cost-benefit analysis

18. **To derive the cost-benefit analysis, the model makes several assumptions about the project activities, the associated costs, and benefits.** The following presents the model assumption, NPV, and IRR for the project.

19. Assumptions relevant to all components:

- **Data.** The Enquete De Suivi De La Pauvrete Au Senegal (ESPS) 2010 data and the Demographic and Health Survey in Senegal (DHS) 2015 are used to estimate the labor market performance (e.g., wage rate, labor force participation rate, employment rate, etc.) and education indicators (e.g., education years and levels, illiteracy, dropout rate, etc.);
- **Internal rate of return (IRR).** We treat the IRR as the lower bound for the impact of the project, since only quantifiable benefits are considered in the calculation;
- **Labor market.** The working age of the labor force is defined as 18 years old to 58 years old, with 40 years in the labor market;
- **Wage rate.** The benefit gained in the labor market due to the improved schooling is based on the wage rate computed from ESPS 2010 survey data; the earning rate remains the same over the benefit time span;
- **Discount rate.** The assumed discount rate of 12 percent is based on the recent lending rate;
- **Inflation adjustment.** Given the currency used (US dollars for all), two percent inflation adjustment per year is assumed;
- **Earnings.** Earnings by level of education as well as for additional year are estimated using ESPS 2010 survey data. The expected future earnings are based on the current labor market outcomes;
- **Exchange rate.** Average exchange rate of XOF (the Western African CFA Franc) 554 per US dollar has been used for local currency conversion to dollar;
- **Schooling.** Primary school starts from age 6, covering grades 1 to grade 6; the lower secondary school include grades 7 to grade 10 and the upper secondary school comprises grade 11 to grade 12.

20. Assumptions for quality interventions and capacity building

- **Labor market.** The wage rate of the secondary completion is used for benefit estimates;

- **School progress.** The completion rate for the secondary completion (grade 12) is estimated as 76 percent from the ESPS (2010);

Assumptions for equity and access interventions

- **Labor market.** Based on ESPS 2010, the labor force participation rate in Senegal is 87 percent, with a high employment rate of 99 percent.
- **Demographics.** 90 percent of the beneficiaries (children) is assumed to live to their adulthood entering the labor market and continue to live on, exiting the labor market after 40 years of labor force participation;
- **Project implementation.** It is assumed that 90 percent of the beneficiaries will complete the project (three-year program for the sub-component 2.2 (daaras), and one-year program or two-year program for the sub-component 2.3 (second chance)).

Learning Outcomes

21. As mentioned above, Component 1 aims to enhance students' learning outcomes and improve cognitive skills through a series of quality interventions. Based on sub-component 1.1 (performance-based financing), 95 percent of Academic Inspectorates and Inspectorates of Training and Education will have at least two officials in HR, statistics and budget management trained to handle the transferred roles and responsibilities by end of 2020; and 95 percent of IEF will achieve the target in that year. Based on sub-component 1.2 (school-based management), 100 percent of the schools will have a QIA based on their Quality Improvement Plan by the end of 2020. Based on sub-component 1.3 (sciences and math teaching), 100 percent of middle school teachers will be trained in the utilization of the new teaching guides and based on sub-component 1.4 (improving pre-service training and in-service teacher and headmaster training), 100 percent of newly recruited teachers will be trained and certified in CRFPF using the new training program, and 25,000 teachers (out of total 50,000 teachers) will receive in-service teacher training by the end of 2020 (in comparison with only 5000 teachers trained in the baseline in 2017).

22. These interventions will improve the quality of basic education in Senegal. Based on international experience, the detail of intervention category, estimated increase in achievement, and probability of the full implementation of the project are listed in table 5.1. For example, the impact on sub-component 1.1 is estimated as 10.4 percent (19.4*53.5 percent), implying that the education investment of sub-component 1.1 on average will bring a 10.4 percent increase in learning outcomes (mostly represented by students' test scores). Similarly, the overall actual impacts for sub-component 1.2, sub-component 1.3, and sub-component 1.4 are 6.9 percent, 4.5 percent, and 4.9 percent, respectively. The previous empirical studies also show that on average, one standard deviation from the mean in cognitive skills (measured by learning outcome or test score) brings from a 0.13 to 0.20 proportional increase in earning income in the labor market.

Table 5.1 Assumptions on the educational Quality intervention impact under Component 1

	Quality interventions of the project	Education interventions by Operation area	Estimated increase in achievement (%)	Probability of adequate implementation (%)	Probable impact (%)
			A	B	C=A*B
sub-component 1.1	Performance based financing (PBC)	Decentralization with supervision	19.4	53.5	10.4
sub-component 1.2	Improved school based management	MIS for identifying low performing schools	10.2	68	6.9
sub-component 1.3	Develop sciences and math teaching at the middle school level	Acquaint teachers with modern curriculum	7.0	64.0	4.5

23. Table 5.2 below presents the cost-benefit analysis results for the base scenario for the education quality intervention under Component 1. The IRR and NPV of cost for each sub-component and for aggregation of Component 1 show that the investment is economically sustainable. The aggregated present discounted value of benefit for Component 1 investment overall is estimated to be US\$69.3 million, while the present discounted value of cost is estimated to be US\$13.6 million. The corresponding NPV of Component 1 investment is US\$55.7 million. The resulting IRR with this NPV is 21 percent for the overall investment under the component.

Table 5. 2 IRR and NPV US\$ millions under the Component 1

Component 1	Comp 1.1	Comp 1.2	Comp 1.3	Total
	Performance-based financing	Improved management	Science and math teaching	Quality
IRR	24%	20%	22%	21%
Discounted Cost (presented value of costs)	\$4.0	\$4.8	\$2.4	\$13.6
Presented value of incremental benefits	\$30.3	\$21.3	\$13.8	\$69.3
NPV	\$26.3	\$16.5	\$11.4	\$55.7
Benefit/cost ratio	7.6	4.4	5.7	5.1

24. Component 2 of the project is composed of the two sub-components: sub-component 2.2 (grants for the selected daaras, hereafter referred as “daaras”) and sub-component 2.3 (engaging out of school children and youth, hereafter referred to as “second chance”). While daaras provide religious education, the schools do not deliver the science, language, and mathematics teaching and learning in line with the public school curriculum. To provide educational opportunities to the daara students, the AF will competitively select and support 400 daaras and benefit 20,000 daara students. Based on the return to education, the benefit of providing the three-year program to daaras is a 14 percent increase per individual in earnings in the future labor market (compared to daara students who do not receive the intervention without).

25. The second sub-component is engagement of out of school children and youth, and will provide them with a second chance to access education. It is estimated that there are 800,000 school aged children out of school in Senegal. In line with Senegal’s Fast Track Program for the five regions with the highest number of out of school children, the AF aims to bring the school aged children back to school. Based on the DHS 2015, the majority (99 percent) of these out of school children have never attended school. The project will be implemented in two steps: in the first step 40,000 out of school children will enroll into the three-year program; in the second step, another 40,000 out of school children will join, and will benefit during the rest of the two-year program. Thus, a total of 80,000 out of school children (10 percent of 800,000) will benefit from the project. We assume the benefit of enrolling in the three-year program is 16 percent (if compared with children who have never attended school), and the benefit of enrolling in the two-year program is 14 percent (if compared with children with no education).

26. The cost-benefit analysis result for the base scenario under Component 2 is presented in table 5.3. To better illustrate the cost and benefit under each sub-component, the analysis is performed separately for each sub-component, and then combined. The present value of the cost is estimated to be US\$2.4 million for sub-component 2.2 (daaras), and for sub-component 2.3 (second chance), respectively, resulting in the total discounted cost under Component 2 of US\$4.8 million. The present value of the project benefits under the two sub-components are US\$6 million and US\$17.9 million, respectively, for the daaras sub-component and second chance sub-component. Combining the two sub-components together, the overall NPV of the component is US\$24 million. The corresponding NPV of the intervention benefit under the component is US\$19.2 million. The benefit-cost ratio for Component 2 is 5.0 and the IRR associated with the component is 21 percent. The analysis reveals the intervention under Component 2 is not only economically viable and will bring quantifiable and measurable benefit to the beneficiaries, but also the benefit is significant and larger than the margin.

Table 5.3: IRR and NPV in US\$ millions under Component 2

	sub-Component 2.2 Daaras	sub-Component 2.3 Second Chance	Component 2 Total
IRR	18%	23%	21%

Discounted Cost (presented value of costs)	\$2.4	\$2.4	\$4.8
Presented value of incremental benefits	\$6.1	\$17.9	\$24.0
NPV	\$3.7	\$15.5	\$19.2
Benefit/cost ratio	2.5	7.5	5.0

27. The investment under Component 3 aims to further enhance the education quality in Senegalese schools by supporting project management and capacity building. Under sub-component 3.2, the system of learning assessment will be built, a regional education report will be produced yearly, and the EMIS system will be in place and functioning. Under sub-component 3.3, 100 percent of the schools will have a functional school-based management committee by 2020; 60 percent will have school heads trained by 2020 (from 20 percent in the baseline of the AF project in 2017); and 1,400 school community members will be trained using the revised materials in local languages. These activities are targeted to advance education quality through capacity building. Similar to the investment under Component 1 (quality enhancement), the impact from these interventions on learning outcomes is listed in table 5.4. For example, the impacts of the sub-component 3.2 and sub-component 3.3 are estimated to be 6.9 percent, and 4.4 percent, respectively.

Table 5.4 Assumptions on the capacity building intervention impact under Component 3

Component 3	Quality interventions of the project	Education interventions by Operation area	Estimated increase in achievement (%)	Probability of adequate implementation (%)	Probable impact (%)
			A	B	C=A* B
sub-component 3.2	Monitoring and evaluation system	MIS for identifying low performing schools	10.2	68	6.9
sub-component 3.3	Decentralization	Decentralization: give authority to school principals	9.3	47.5	4.4

28. Table 5.5 presents results of the cost-benefit analysis for the intervention under Component 3. The overall IRR is 21 percent, the benefit-cost ratio is 5.3, the present discounted value of cost is US\$5.6 million, and the presented value of benefit brought by the intervention is estimated to be US\$5.6 million. This results in a NPV of US\$23.8 million. The computation verifies economic feasibility of investment under Component 3.

Table 5.5: Internal rate of return (IRR) and net present value (NPV) in million US Dollars under the Component 3

Comp 3.2	Comp 3.3	Total
Monitoring and evaluation	Decentralization	Capacity building

IRR	22%	20%	21%
Discounted Cost (presented value of costs)	\$3.6	\$2.0	\$5.6
Presented value of incremental benefits	\$21.3	\$8.0	\$29.4
NPV	\$17.7	\$6.1	\$23.8
Benefit/cost ratio	5.9	4.1	5.3

29. The cost-benefit analysis for all of the components of the project are presented in table 5.6, which combines the summaries from tables 5.2, 5.3, and 5.5. It illustrates that the IRR for each component is 21 percent, resulting in the aggregated IRR for the entirety of the AF as 21 percent as well. The present discounted cost of the project is US\$24 million, with the present value of benefit as US\$122.7 million. The resulting NPV of the entire project is US\$98.8 million. These estimates provide strong evidence that the project is not only economically sustainable, but that each component is also economically viable.

Table 5.6 : IRR and NPV in US\$ under the project

Component	Component 1	Component 2	Component 3	Total
	Quality	Equity in access	Management and Capacity building	Additional financing
Interventions				
IRR	21%	21%	21%	21%
Discounted Cost (presented value of costs)	\$13.6	\$4.8	\$5.6	\$24.0
Presented value of incremental benefits	\$69.3	\$24.0	\$29.4	\$122.8
NPV	\$55.7	\$19.2	\$23.8	\$98.8
Benefit/cost ratio	5.1	5.0	5.3	5.1

Sensitivity analysis

30. The sensitivity analysis is conducted by relaxing the assumptions stated above used in the base scenario. Table 5.7 summarizes these key assumptions. The assumptions are changed based on the following set of considerations: first, fluctuations in the financial market and political instability would result in variations of the lending and inflation rates. Second, the demographic change and external environmental condition (e.g., climate change, urbanization, transportation, health services and diseases, etc.) would change individual agents' life span and life survival rate. Third, we allow some portion of the children to fail the project intervention during the implementation stage and exit the program. Some examples include the failure of a beneficiary to complete the program, or drop out of school again. Fourth, the uncertainty in the labor market results in the rise and fall of the labor market parameters, for example, years in the labor market (30 years, 40 years, or 46 years), labor force participation rate (due to structural changes in the economy, or cultural norms), the fluctuation of returns to education in the labor market due to technology change, demographic change (birth rate, mortality rate, fertility, etc.), and industry structural shift, etc. Finally, we allow the fluctuation of school progression. The survival rate of upper secondary education is 76 percent. This rate is considered high if compared with the Sub-Saharan Africa standard.

We grant to change over the year. These variabilities would be reflected in the sensitivity analysis when we estimate the NPVs, IRRs, and benefit-to-cost ratios.

Table 5.7: Summary of the key assumptions for the sensitivity analysis

Sensitivity parameter	Worst scenario	Baseline	Best scenario
<u><i>Financial market</i></u>			
Discount rate	15%	12%	10%
Inflation rate	1%	2%	3%
<u><i>Demographics</i></u>			
Life survival rate	88%	90%	94%
<u><i>Project implementation</i></u>			
Probability of completion of the program	85%	90%	92%
<u><i>Education system</i></u>			
Survival rate of upper secondary (grade 12)	70%	76%	80%
<u><i>Labor market performance</i></u>			
Labor force participation rate	80%	87%	90%
Employment rate	97%	99%	99%
Years in the labor market	30	40	46
<u><i>Project performance</i></u>			
Incremental earning from intervention	0.14	0.16	0.18
ROR of the three-year "2nd Chance" program	15%	16%	17%
ROR of the two-year "2nd Chance" program	13%	14%	15%
ROR of the three-year Daaras program	13%	14%	15%

31. Table 5.8A presents cost-benefit analysis results under the worst scenario assumptions for the whole project. In the worst external situation, the overall benefit-cost ratio is 1.9, while the IRR is 19 percent. It implies even under such a challenging environment that the AF intervention is still economically sustainable and brings measurable return to the beneficiaries. However, it is notable that the benefit-cost ratio is the lowest for Component 2, at 1.7. To further detect the potential risk under the worst scenario, table 5.8B is offered to examine the cost-benefit analysis under Component 2. Specifically, we find that sub-Component 2.2 (daaras) has the highest risk, with a negative presented discounted value and a low benefit-cost ratio at 1.0.

32. The two panels under Table 5.8 indicate that the project is still economically sustainable, even under the worst scenario. But attention should be given to the potential risk under Component 2, especially

sub-component 2.2. The investment to improve access to students in daraas would be more challenging than other sub-components.

Table 5.8 NPV in US\$ million and IRR based on the worst scenario

8A: For the whole project				
Component	Component 1	Component 2	Component 3	Total
	Quality	Equity in access	Management and Capacity building	Additional financing
Interventions				
IRR	18%	18%	19%	19%
Discounted Cost (presented value of costs)	\$12.9	\$4.6	\$5.3	\$22.8
Presented value of incremental benefits	\$23.7	\$8.0	\$10.9	\$42.6
NPV	\$10.8	\$3.4	\$5.5	\$19.7
Benefit/cost ratio	1.8	1.7	2.0	1.9
8B: For the component 2				
	Sub-component 2.2 Daaras	Sub-component 2.3 2nd Chance	Component 2 Total	
IRR	15%	20%	18%	
Discounted Cost (presented value of costs)	\$2.3	\$2.3	\$4.6	
Presented value of incremental benefits	\$2.2	\$5.7	\$8.0	
NPV	(\$0.06)	\$3.4	\$3.4	
Benefit/cost ratio	1.0	2.5	1.7	

33. The cost-benefit analysis results under the best scenario assumptions are presented in table 5.9. It strongly supports the empirical evidence that when the market goes well, the return to education is rewarded more. Under the best scenario, the IRR reaches 23 percent and the benefit-cost ratio reaches as high as 11.3.

Table 5.9: NPV in US\$ millions and IRR based on the best scenario

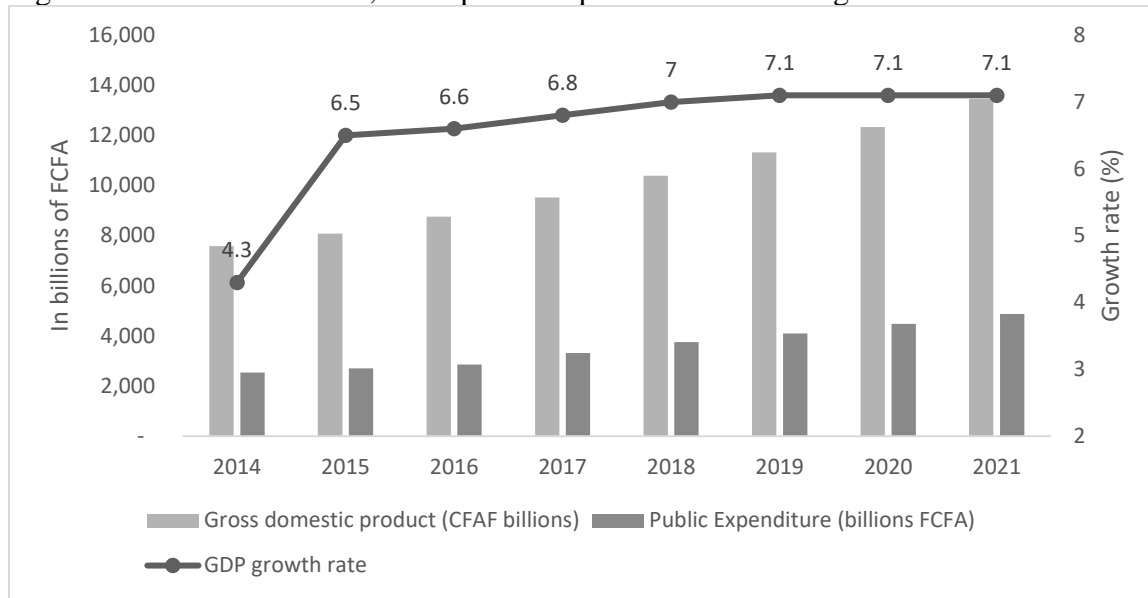
Component	Component 1	Component 2	Component 3	Total
	Quality	Equity in access	Management and Capacity building	Additional financing
Interventions				
IRR	23%	24%	24%	23%
Discounted Cost (presented value of costs)	\$14.1	\$5.0	\$5.8	\$24.9
Presented value of incremental benefits	\$161.6	\$54.7	\$65.5	\$281.8
NPV	\$147.5	\$49.7	\$59.7	\$256.9
Benefit/cost ratio	11.5	11.0	11.3	11.3

34. The sensitivity analysis confirms the AF is a good investment and worthwhile intervention. The monetary return of the project activities is compensated even in the worst economic situation (except sub-component 2.2 - daaras).

Sustainability

35. **The project's fiscal sustainability is based primarily on the government's sustained support to the education sector education over time.** The aim of this project is to improve the quality of education through improvement of learning outcomes for early grades, increase access to the science and mathematics tracks of secondary schools, and to improve equity in access. The project also aims to improve the capacity of the government. These two objectives do not require immediate increases in the government's fiscal space to sustain them after the end of the project. The project annual cost for the next 4 years is only 10 percent of the total education budget estimated to be allocated. Furthermore, the macroeconomic environment is projected to be favorable with an annual GDP growth rate of above 7 percent through 2021 (figure 5.10). The share of education spending as a percentage of GDP has been above 6 percent as indicated in the education sector PER for Senegal (2016), which is above the recommended 4-6 percent of GDP (more than 24 percent as share total public expenditure). This implies that Senegal can be expected to increase its spending on education, especially if, as the IMF projects, revenue mobilization improves (figure 5.10). Given the positive economic prospective, any incremental cost needed to maintain the sector is manageable under the government's fiscal space. Further, the project is in line with the government's priorities and is manageable under the fiscal space of the current budget framework, therefore the project's sustainability is not at risk.

Figure 5.10: Trends of GDP, Total public expenditure and GDP growth



Source : IMF, Article IV Consultation, 2017

Rationale for public engagement and the World Bank's value added

36. Public sector provision of education services as well as public financing of the education sector are indispensable in Senegal. About half of the Senegalese population lives below the national poverty line, which varies disproportionally across regions. Given the importance of the role of education in poverty reduction, coupled with the issue of extremely high out-of-school rate mostly affecting disadvantaged groups and the lower quality of education, there is a strong rationale for the government to intervene in the system to ensure inclusive economic growth and development. For example, the out-of-school rate for the poorest quintile stands at 55 percent as opposed to 28 percent for the richest quintile. The inequality in access to education at the regional level is large. This requires government intervention to provide equal opportunities for all children in Senegal. Through this project, it is expected that the government would increase access rates at the primary and secondary level, accommodate second chance learners, increase the quality of education, particularly in mathematics and sciences which is critical to the labor market, and reduce inequality across key socio-demographic groups. In terms of capacity, the government provides education services to most Senegalese children at a lower cost than private schools. Additionally, the government tends to serve the poor more than private schools.

37. The World Bank has been supporting Senegal's education sector and has been one of the main development partners actively engaging with the government. The World Bank has a comparative advantage over other development partners given its consistent engagement in the sector and the successful implementation of several education sector projects. For example, this additional financing is also a continuation of World Bank's support which has already demonstrated positive outcome as reflected on project description section of the project paper. Through its working experience, the World Bank has also gained a better understanding of education sector issues and has developed strategies and methods to support the government most efficiently. Moreover, the World Bank has conducted several ASAs to understand the sector's issues and to provide evidence-based support to the government including the recent Education Sector PER in 2016. The current project is also directly aligned with the World Banks'

twin goals of poverty reduction and shared prosperity, and the World Bank has global expertise which would successfully support the implementation of the Project.