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The World Bank

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Report No: PAD2208

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF US$55 MILLION

TO THE

REPUBLIC OF NICARAGUA

FOR AN

ALLIANCE FOR EDUCATION QUALITY PROJECT

March 23, 2017

Education Global Practice
Latin America and the Caribbean Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective March 2, 2017)

Currency Unit =	Nicaraguan Cordobas Oro (NIO)
US$1 =	NIO 29.56
NIO 1 =	US$0.03

FISCAL YEAR

January 1–December 31

ABBREVIATIONS AND ACRONYMS

AD	Afro-Descendant
AFGD	Administrative and Financial General Division (*Division General Administrativa Financiera*)
CAP	Teacher Training Course Certificate (*Certificado de Aptitudes Pedagógicas*)
DA	Designated Account
DLI	Disbursement-Linked Indicator
EEP	Eligible Expenditure Program
EU	European Union
ESMF	Environmental and Social Management Framework
FM	Financial Management
GDP	Gross Domestic Product
GDPE	General Directorate of Primary Education (*Dirección General de Educación Primaria*)
GDPSE	General Directorate of Preschool Education (*Dirección General de la Educación Preescolar*)
GDSE	General Directorate of Secondary Education (*Dirección General de Educación Secundaria*)
GDSI	General Directorate of School Infrastructure
GDTT	General Directorate of Teacher Training (*Dirección General de Formación Docente*)
GGESP	Guideline of Good Environmental and Social Practices
GoN	Government of Nicaragua
GRS	Grievance Redress Service
IFR	Interim Financial Report
IP	Indigenous Peoples
IPAP	Indigenous Peoples and Afro-Descendant Plan
IPAPF	Indigenous Peoples and Afro-Descendant Planning Framework
IRI	Intermediate Results Indicator
LAC	Latin America and the Caribbean
MHCP	Ministry of Finance and Public Credit of Nicaragua (*Ministerio de Haciendas y Crédito Público*)
MINED	Ministry of Education (*Ministerio de Educación)*
OM	Operational Manual
PDO	Project Development Objective
PPSD	Project Procurement Strategy for Development
SEIDI	Integrated Early Childhood Development Monitoring and Evaluation System (*Sistema de Evaluación Integral de Desarrollo Infantil*)
SIAF	Institutional Financial Management System (*Sistema Institucional de Administración Financiera*)
SIGFA	Integrated Financial Management System (*Sistema Integrado de Gestión Financiera*)

TEPCE	Evaluation, Programming and Educational Training Workshops *(Talleres de Evaluación, Programación y Capacitación Educativa)*
TERCE	Third Regional Comparative and Explanatory Study *(Tercer Estudio Regional Comparativo y Explicativo)*
TMP	Teacher Mentoring Program
TOR	Terms of Reference
TTL	Task Team Leader
TVET	Technical and Vocational Education Training
UNESCO	United Nations Educational, Scientific, and Cultural Organization

Regional Vice President:	Jorge Familiar
Country Director:	J. Humberto Lopez
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Practice Manager:	Reema Nayar
Task Team Leader(s):	Enrique O. Alasino Massetti, Rita Kullberg Almeida

BASIC INFORMATION

Is this a regionally tagged project?	Country(ies)	Lending Instrument
No		Investment Project Financing

[ ] Situations of Urgent Need of Assistance or Capacity Constraints

[ ] Financial Intermediaries

[ ] Series of Projects

Approval Date	Closing Date	Environmental Assessment Category
13-Apr-2017	29-Apr-2022	B - Partial Assessment

Bank/IFC Collaboration
No

Proposed Development Objective(s)

The objective of the Project is to improve (a) teacher practices for participating teachers in preschool, primary and secondary education nationwide, and (b) physical learning conditions in targeted schools.

Components

Component Name	Cost (US$, millions)
Component 1. Improving Teacher Practices for Participating Teachers in Preschool, Primary and Secondary Education Nationwide	24.00
Component 2.Improving the Physical Learning Conditions in Targeted Schools	27.20
Component 3. Supporting Project Management and Monitoring	3.80

Organizations

Borrower :	Republic of Nicaragua
Implementing Agency :	Ministry of Education (MINED)

[ ] Counterpart Funding	[ ] IBRD	[✓] IDA Credit [ ] Crisis Response Window [ ] Regional Projects Window	[ ] IDA Grant [ ] Crisis Response Window [ ] Regional Projects Window	[ ] Trust Funds	[ ] Parallel Financing

Total Project Cost:	Total Financing:	Financing Gap:
55.00	55.00	0.00
	Of Which Bank Financing (IBRD/IDA): 55.00	

Financing (in US$, millions)

Financing Source	Amount
IDA-60150	55.00
Total	**55.00**

Expected Disbursements (in US$, millions)

Fiscal Year	2017	2018	2019	2020	2021	2022
Annual	0.00	15.00	24.50	12.10	3.10	0.30
Cumulative	0.00	15.00	39.50	51.60	54.70	55.00

INSTITUTIONAL DATA

Practice Area (Lead)

Education

Contributing Practice Areas

Climate Change and Disaster Screening

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

Gender Tag

Does the project plan to undertake any of the following?

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF

Yes

b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment

Yes

c. Include Indicators in results framework to monitor outcomes from actions identified in (b)

Yes

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

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

COMPLIANCE

Policy

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

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

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

Legal Covenants

Financing Source	Sections and Description
	1. The Recipient, through MINED, shall: (a) appoint and maintain, at all times during Project implementation, a Project coordinator within MINED, with functions and responsibilities acceptable to the Association, including, inter alia, the responsibility to coordinate and assist MINED and its divisions and secretariats in the implementation, administration, monitoring and supervision of the Project; and (b) maintain, at all times during Project implementation, the following staff: (i) a procurement coordinator; (ii) a finance coordinator and two financial management

	specialists; (iii) a senior social safeguards specialist; and (iv) a environmental safeguard specialist, all with terms of reference, qualifications and experience acceptable to the Association. (Section I.A of Schedule 2 of the FA).
Financing Source	Sections and Description 2. The Recipient shall carry out the Project in accordance with an Operational Manual satisfactory to the Association. (Section I.B of Schedule 2 of the FA)
Financing Source	Sections and Description 3. The Recipient shall carry out the Project in accordance with the Safeguard Instruments, including the ESMF (and related EMPs/TRPs), the IPAPF (and related IPAPs), and the National IPAP for Component 1. (Section I.D.1 and 2 of Schedule 2 of the FA)
Financing Source	Sections and Description 4. The Recipient shall ensure that the activities under the Project do not involve any involuntary resettlement. (Section I.D.3 of Schedule 2 of the FA).
Financing Source	Sections and Description 5. The Recipient shall ensure that the terms of reference for any consultancies related to any technical assistance provided under Parts 2 and 3.1 of the Project shall be satisfactory to the Association and incorporate the requirements of the Association Safeguards Policies then in force, as applied to such technical assistance (Section I.D.4 of Schedule 2 of the FA).

Conditions

Financing Source	Type	Description
	Disbursement	1. No withdrawal shall be made for payments prior to the date of the Financing Agreement, except that withdrawals up to an aggregate amount not to exceed $600,000 may be made for payments made prior to this date but on or after January 1, 2017 for Eligible

		Expenditures under Category (1). (Section IV.B.1 (a) of Schedule 2 of the FA)

Financing Source	Type	Description
	Disbursement	2. No withdrawal shall be made for payments under Category (1) with respect to each DLI, unless the Recipient, through MINED, has also submitted: (i) evidence, in form and substance satisfactory to the Association, of EEPs incurred, as presented in a EEPs Spending Report; and (ii) supporting documentation confirming the Recipient's achievement of the respective DLI or DLIs. (Section IV.B.1 (b) of Schedule 2 of the FA).

PROJECT TEAM

Bank Staff

Name	Role	Specialization	Unit
Enrique O. Alasino Massetti	Team Leader(ADM Responsible)	Co - TTL	GED04
Rita Kullberg Almeida	Team Leader	Co -TTL	GED04
Carlos Lago Bouza	Procurement Specialist(ADM Responsible)	Senior Procurement Specialist	GGO04
Enrique Antonio Roman	Financial Management Specialist	Financial Management Specialist	GGO22
Adriana Cecilia Espinal	Team Member	Program Assistant	GED04
Alonso Sanchez	Team Member	Economist	GED04
Antonella Novali	Team Member	Operations Analyst	GED04
Axelle Latortue	Team Member	Education Specialist	GED04
Dianna M. Pizarro	Safeguards Specialist	Senior Social Development Specialist	GSU04
Erika Piber	Safeguards Specialist	Social Safeguards Specialist	GSUGL
Irayda Mirtala Ruiz Bode	Team Member	Infrastructure Specialist	GED04
Julio Daniel Martinez	Team Member	Consultant	GED04
Lourdes Consuelo Linares	Team Member	Sr Financial Management	GGO22

Loza			
Luciana Beatriz Velarde Arrisueno	Team Member	Economist	GED04
Marco Antonio Zambrano Chavez	Safeguards Specialist	Environmental Safeguards Specialist	GEN04
Norma Vida Malespin De Jimenez	Team Member	Infrastructure Specialist	GED04
Pilar Elisa Gonzalez Rodriguez	Counsel	Senior Counsel	LEGLE
Sandra Monica Tambucho Perez	Team Member	Senior Finance Officer	WFALA
Tatiana Cristina O. de Abreu Souza	Team Member	Finance Officer	WFALA

Extended Team

Name	Title	Organization	Location

NICARAGUA
ALLIANCE FOR EDUCATION QUALITY PROJECT

I. STRATEGIC CONTEXT

A. Country Context

1. **Nicaragua remains one of the poorest countries of Latin America and the Caribbean (LAC), but recent strong economic growth has contributed to notable poverty reduction.** With per capita gross national income of US$1,800, Nicaragua's annual economic growth has averaged 4.8 percent in the last six years. This growth, together with an increase in expenditures in Government priority areas, has resulted in a significant reduction in overall poverty (defined as people living under U$S1.6 per day), to 42.5 percent by 2009 and 26.9 percent by 2014, according to the 2014 Nicaragua Living Standards Measurement Study. Meanwhile, in the same period, extreme poverty dropped 6 percentage points, from 14.6 percent in 2009 to 8.3 percent in 2014. Despite progress, a third of the population still lived below the official poverty line in 2014, most concentrated in rural areas with limited access to basic services.

2. **Despite this, poor social outcomes and inequality remain key challenges for the Government of Nicaragua (GoN).** While Nicaragua has made progress in reducing poverty, inequality and unemployment increased between 2009 and 2014.[1] Moreover, the current deterioration of fiscal accounts may lead to cuts in social spending, potentially slowing progress on key human development indicators. To respond to these challenges and mitigate their impact on the poorest, the GoN seeks to raise productivity and boost growth. In particular, the National Human Development Plan 2012–2016 laid out a strategy for reducing poverty and improving shared prosperity through the expansion of education services and social programs and promoting a more coordinated multisectoral human development approach to early childhood development, youth employment, and teenage pregnancy.

3. **Nicaragua is also highly susceptible to natural disasters and climatic conditions, such as hurricanes, extreme rainfall and earthquakes.** The country's poor ability to withstand these climate and disaster risks can lead to unintended consequences. Extreme flooding, for example, can trigger mudslides and landslides, especially near volcanic regions, putting communities and buildings at risk.

B. Sectoral and Institutional Context

4. **The public education system in Nicaragua has five subsystems, the largest is the basic and middle subsystem, with 1.5 million students and 54,000 teachers.** This subsystem includes preschool, basic education (grades 1 to 9) and upper secondary (grades 10 and 11), education for youth and adults, education for special-needs children, and teacher training schools, which are all under the Ministry of Education (*Ministerio de Educación*, MINED). Preschools are divided into formal and non-formal/community schools, primary schools into regular and multi-grade schools, and secondary schools into regular/day shift and countryside.[2] As of 2016, there were around 228,000 preschool, 745,000 primary, 207,000 lower secondary and 120,000 upper secondary students.

5. **Although access and completion rates in basic education have improved since 2008, inefficiencies remain, especially affecting students in the poorest rural areas.** Coverage has been almost universal in primary education since 2008, with increases in net enrollment rates suggesting

[1] Between 2009 and 2014, the Gini coefficient grew from 45.7 to 47.1 and unemployment rate rose from 6.2 to 6.5 percent.
[2] Unless otherwise specified, data are from *Nicaragua Social Sector Expenditures and Institutional Review*. World Bank, 2016.

improvements in efficiency. Progress in secondary education was also significant with gross and net enrollment rising by approximately 5 percentage points. As of 2014, among 20-24 years old, 73 percent had completed primary education, compared to 52 percent in 2005, and 39 percent had completed lower secondary education, compared to 24 percent in 2005. Still the basic education system faces challenges such as high repetition, dropout, and overage rates, where Nicaragua reports the highest rates in LAC. Repetition rates begin early on, creating discouragement and leading to dropouts. As of 2014, 1 out of 4 individuals aged 20-24 did not complete the full six grades of primary education, and 4 out of 10 did not complete secondary education. Overage in primary education tends to be concentrated in the lowest income quintiles and in rural areas. According to the 2014 Nicaragua Living Standards Study, the main reasons for children aged 6-18 not attending school are lack of interest and financial constraints. MINED studies show that public programs providing school kits and school meals may reduce the cost of going to school and promote healthier and better equipped children, who are more likely to learn, lowering the likelihood of repetition and increasing survival rates in school.

6. **Learning outcomes, however, remain low highlighting the need to strengthen teacher practices.** As of 2013, Nicaraguan students performed below regional averages across all subject areas in the Third Regional Comparative and Explanatory Study (*Tercer Estudio Regional Comparativo y Explicativo*, TERCE).[3] This poor performance is linked to the quality of the learning environment, as well as teachers' knowledge and instructional skills. A large share of in-service teachers lack initial training, which is a prerequisite for formal certification.[4] Furthermore, a diagnostic study carried out among Nicaragua's eight public teacher training institutes highlighted areas for improvement: (a) teacher's mastery of content of core subjects; (b) length of teaching and student mentoring in the classroom; and (c) teaching of pedagogical and evaluation strategies.[5] Furthermore, recent evidence by MINED suggests that, even though teachers may spend a relatively large share of classroom time in academic activities, their quality remains quite low. Even in schools where 77 percent of classroom time was spent on academic activities, only one-third of the students interacted with the teacher and engaged in learning opportunities.[6]

7. **Furthermore, persistent gaps in access to high-quality learning conditions start early in life.** As of 2016, 60 percent of children attended community preschools which are staffed by young volunteers from local communities, often with secondary education and lacking formal pedagogical training. [7] Moreover, while the GoN launched a new Quality Model for Preschool Education in 2013[8] and is

[3] TERCE was carried out by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in 2013 across LAC to assess the performance of students in grades 3&6 in mathematics, reading, and writing, and in grade 6 in natural sciences.
[4] 70 percent of preschool community teachers and 20 percent of secondary education teachers
[5] MINED, and the National Council of Universities. 2015. *Diagnóstico Situacional de las Escuelas Normales Públicas de Nicaragua*.
[6] This data is based on a 2016 MINED pilot relying on the use of a new classroom observation instrument (2016 'Stallings Classroom Snapshot') from preschool to grade 11. The pilot shows that the percentage of classroom time spent on academic activities is higher in Managua (77 percent) than in the top 10 percent of schools with the highest academic performance in Honduras, Mexico City, and Rio de Janeiro (with 68, 62, and 70 percent respectively). Nevertheless, the quality of instructional time in Nicaragua remains low. Furthermore, in 37 percent of the classrooms, a group of students never interacted with the teacher or engaged in academic activities.
[7] In 2009, 74 percent of preschool enrollment in rural areas was in community preschools compared to 54 percent nationwide.
[8] This Quality Model includes: (a) a new preschool curriculum and learning instruments; (b) preservice training for teacher certification; (c) new quality standards for preschool infrastructure; (d) distribution of learning materials; and (e) an early childhood development monitoring and evaluation system (World Bank 2016).

supporting quality learning environments among community preschools, the scope of its implementation is still limited.

8. **These inequalities in access persist through childhood, affecting school attendance, graduation rates, and, ultimately, learning.** Poor school infrastructure limits the availability of adequate physical learning conditions, especially in rural areas. First, it results in the use of small multi-grade schools, often with a single classroom and a single teacher to cover students all six grades of primary education. The GoN has recently started expanding school's facilities in some of these areas to make secondary education available, but its scope is limited, thus, students who opt to continue studying, often enroll in far-off secondary schools, increasing their risk of dropping out. Second, Nicaragua has one of the lowest availability of water and sanitation facilities in schools in LAC. Access to these facilities is positively correlated to better learning outcomes, especially for girls and as they approach the age of menstruation. Finally, being a natural disaster-prone area, school infrastructure is vulnerable to major natural disasters (such as earthquakes, floods, and landslides), further exacerbating access to, and safety of, schools.

9. **Gender norms emphasizing the role of women as caregivers and housewives rather than their economic potential not only impact girls' schooling but also their labor market decisions.** Despite comparable dropout rates, drop out of young women tends to be more related to household activities, teenage pregnancy, and early marriage than for boys. Furthermore, improved schooling outcomes for women do not translate into equality in the labor market where gender gaps still persist, as demonstrated by low female labor force participation rates, occupational segregation, and lower wages for women.[9] This is in part due to reduced empowerment and motivation of girls to prioritize investment in their own human capital and successful labor market insertion as a way of achieving independence. Schools are thus an important place where traditional gender norms can either be reinforced—or challenged, and where life and behavioral skills can empower girls to take control of their life.

10. **Finally, MINED's still nascent education management and information system, together with its low institutional capacity, affects the efficiency of the basic education system.** MINED is starting to overcome its formerly fragmented approach to planning, managing, and evaluating education policies and programs. Since 2011, MINED has strengthened its planning and monitoring systems by collecting basic education statistics in a systematic way, but it still faces challenges. Through ongoing operations ,[10] the World Bank is providing support to the design, piloting, and implementation of new management and information systems, but key areas still need to be strengthened, such as finance and school infrastructure management, so as to enhance MINED's implementation capacity.

11. **The GoN has demonstrated its commitment to tackling these challenges in the new 2017–2021 Education Sector Strategy, and the World Bank has been supporting GoN's efforts.** The objectives of the Strategy are to improve education quality, increase equitable access, and foster MINED's institutional development. Learning is a key priority, and the Strategy focuses on four components: (a) ensuring that teachers are motivated, master their subject areas, and are equipped with solid practices; (b) using modern competency-based curricula; (c) providing adequate school environments targeted geographically for increasing equitable access; and (d) engaging the support of proactive and informed parents to enhance student learning. The World Bank has been supporting the GoN's efforts to address

[9] Nicaragua Gender Note (World Bank 2016).
[10] Second Support to the Education Sector Project (P126357) and Education Sector Strategy Support Project (P133557).

these challenges. Recognizing the importance of access to quality services in a child's early years, the World Bank supported the development of a preschool quality framework and a new teacher training system. In primary education, the Bank financed revision of the curricula and distribution of updated materials in Spanish and Indigenous languages, an assessment of the teacher training system, and changes to the pre- and in-service teacher training programs. In an effort to reduce the gap in access to quality learning environments, the World Bank financed rehabilitation of targeted secondary classrooms.

C. Higher Level Objectives to which the Project Contributes

12. **The higher level objective of the proposed Project is to improve learning outcomes through better quality preschool and basic education.** The proposed Project contributes to the World Bank's twin goals of reducing poverty and boosting shared prosperity, by improving learning outcomes leading to greater skills and productivity of future workers. The proposed Project is also aligned with the Nicaragua Country Partnership Strategy 2013–2017,[11] focused on raising welfare by improving access to quality basic services, especially among poor rural households. In particular, the proposed Project is focused on improving quality in public schools, which benefit primarily students from low-income families, and closing efficiency and learning gaps by targeting areas where 50 percent of the population lives in poverty and 16 percent in extreme poverty.[12] The proposed Project will also contribute to Sustainable Development Goal No. 4 by strengthening preschool education and increasing access to quality basic education. The proposed Project is expected to have climate co-benefits given that it will build or rehabilitate school infrastructure by considering the effects of climate change vulnerability, therefore increasing resilience of these investments. Based on the available information at the time of appraisal, the climate co-benefits are estimated at 50 percent of the proposed Project amount.

II. PROJECT DEVELOPMENT OBJECTIVES (PDO)

A. PDO

13. **The objective of the Project is to improve (a) teacher practices for participating teachers in preschool, primary and secondary education nationwide, and (b) physical learning conditions in targeted schools.**

B. Project Beneficiaries

14. **The proposed Project will directly benefit over 69,000 individuals, including teachers in preschool, primary and secondary public schools nationwide and students attending targeted schools.** The Proposed Project will reach around 52,500 teachers with improvements in teacher practices and 15,300 students with infrastructure investments. In addition, the proposed Project is expected to benefit directly approximately 1,500 school principals, pedagogical counselors, and coordinators nationwide, as well as MINED staff. Given that schools targeted under the proposed Project will provide adequate infrastructure for around 30 years, the overall number of students benefiting from the infrastructure

[11] Discussed by the Executive Directors on November 13, 2012, Report No.: 69231-NI.
[12] 2014 Nicaragua Living Standards Measurement Study.

Component is expected to be around 49,000.[13] Indirectly the proposed Project is expected to reach over 1 million students in public schools nationwide.[14]

C. PDO-Level Results Indicators

15. **A core set of indicators will be used to monitor progress toward the PDO:**
   (a) Number of participating primary and secondary education teachers with improved teaching practices;[15]
   (b) Percentage of preschool teachers with desired teaching practices; and
   (c) Percentage of Project-supported schools meeting minimal physical quality standards.

III. PROJECT DESCRIPTION

A. Project Components

16. **The proposed Project will finance three Components.**

17. ***Component 1. Improving Teacher Practices for Participating Teachers in Preschool, Primary and Secondary Education Nationwide (US$24 million).*** **This Component seeks to introduce innovative mechanisms to improve teacher quality through two subcomponents.[18]**

18. **Subcomponent 1.1. Improving teacher practices for participating teachers nationwide (US$22.2 million)** by (1.1.1) revising and implementing an in-service teacher training plan for public preschool teachers, focused on the improvement of teacher practices, through the provision of financing for eligible expenditure programs (EEPs); (1.1.2) designing and implementing a new national Teacher Mentoring Program (TMP) for basic education teachers, led by school principals and pedagogical advisors, based on classroom observation to assess teacher practices, provide feedback, and develop a teacher professional development plan, including follow-up visits, through the provision of financing for EEPs; (1.1.3) revising and implementing an in-service teacher training program for primary school teachers, focused on pedagogies for core subjects, and augmented with life and behavioral skills, including selected gender sensitive topics; and (1.1.4) providing learning materials and training teachers on how to best use them in the classroom. EEPs include: (a) teacher salaries; (b) per diems for teacher training and mentoring activities; and (c) goods such as printers (including toners), computers, and tablets, all of which have been incurred by the Recipient in connection with the implementation of Parts 1.1.1 and 1.1.2 of the proposed Project.

19. **Subcomponent 1.2. Strengthening MINED's capacity to collect and analyze student assessments, and lead studies on teacher practices (US$1.8 million)** by: (1.2.1) collecting, processing, analyzing, disseminating, and using child development and student learning assessments for improving

[13] Enrollment in each targeted schools is expected to reach approximately 340 students, reaching 15,300 students for all the 45 targeted schools. Assuming that each year a cohort of 25 new students enters the school the overall number of student beneficiaries would be of approximately 49,000 students.
[14] The Project is expected to benefit indirectly over 1 million students attending pre-school and basic education in public schools nationwide. This estimated number of beneficiary students is based on 2016 enrollment data from public preschools (community and formal) and basic education schools. Private schools receiving public funds were excluded.
[15] Improving teaching practices will be measured by an index capturing various dimensions of teaching.

teacher practices; and (1.2.2) developing and using research and carrying out an impact study to enhance the quality of the teacher training and mentoring programs.

20. ***Component 2. Improving the Physical Learning Conditions in Targeted Schools (US$27.2 million).*** This Component aims to ensure that schools have the minimal physical quality standards as defined by MINED, by supporting the rehabilitation, replacement, and/or expansion of school infrastructure, including furniture and educational equipment, to improve physical learning conditions in approximately 45 targeted schools selected in accordance with the criteria set forth in the Operational Manual (OM). To reduce vulnerability to flooding, storm surges and earthquakes, construction will be undertaken taking into account specific requirements by gender and for people with disabilities as well as in accordance with the Safer Schools Guidelines. These include standards for civil works and landscaping to increase infrastructure resiliency, particularly to climate change-related vulnerabilities, reduce unusable surface, and improve water runoff management.

21. ***Component 3. Supporting Project Management and Monitoring (US$3.8 million).*** This Component will strengthen the technical and fiduciary capacity of MINED by: (3.1) supporting the development of an infrastructure management system to monitor the implementation of activities under Component 2; and (3.2) supporting the fiduciary management system for overall Project implementation, including support for Project management and monitoring, and audit costs.

B. Project Cost and Financing

22. **The Investment Project Financing will be financed by an IDA Credit in the amount of US$55 million.** The proposed Project will also cover retroactive eligible expenditures for costs incurred on or after January 1, 2017, up to US$600,000. Table 1 shows the proposed Project cost and financing by Component.

Table 1: Project Cost and Financing by Component

Project Component	Cost (US$ millions)	IDA (US$ millions)
1. Improving Teacher Practices for Participating Teachers in Preschool, Primary and Secondary Education Nationwide	24.0	24.0
2. Improving the Physical Learning Conditions in Targeted Schools	27.2	27.2
3. Supporting Project Management and Monitoring	3.8	3.8
Total Project Costs	55.0	55.0

23. **In an effort to encourage focus on results, the proposed Project will use Disbursement Linked Indicators (DLIs) for the first time in Nicaragua.** Disbursements of US$7 million (or 13 percent of the IDA financing) will be linked to the achievement of eight specific targets in subcomponents 1.1.1 and 1.1.2. Disbursement of Project funds under these subcomponents is conditional on submission of: (a) supporting documentation confirming achievement of DLIs; and (b) evidence of EEPs incurred, as presented in a EEPs Spending Report. DLIs, milestones, target years, and financing amounts are presented in Table 2. Certain DLIs (3 and 5-8) are scalable, so that if the target has been partially met, the GoN can request disbursement of an agreed proportion of the total value. DLIs are not time-bound and each will have a

clear set of procedures for achieving them, as well as precise verification protocols (see Annex 5 and the OM).

Table 2: DLI Milestones and Financing Amounts (US$, millions)

	2017	2018	2019	2020	2021
IRI1. Number of in-service preschool teachers certified in the Preschool Teacher Training program	**DLI1.** Preschool teacher training plan designed, approved and operationally tested (US$1.0 million)	**DLI3.** 8,500 in-service preschool teachers enrolled in the teacher training program developed under the plan referred to in DLI (1), and the first face-to-face session of the program attended by said teachers (US$1.0 million)			**DLI8.** 5,500 in-service preschool teachers certified (US$0.5 million)
IRI2. Number of education personnel trained in teacher mentoring		**DLI4.** TMP designed and approved by MINED (US$1.0 million)	**DLI5.** 500 education personnel trained in teacher mentoring (US$1.5 million)		
IRI3. Number of in-service basic education teachers who received at least three mentoring visits	**DLI2.** National classroom observation instrument developed and validated (US$1.0 million)		**DLI6.** 1,250 teachers received at least three mentoring visits (US$0.5 million)	**DLI7.** **(a)** 1,250 teachers who received three mentoring visits under DLI (6), subsequently received an additional three mentoring visits; and **(b)** 1,250 teachers different from those covered under DLI (6), received at least three mentoring visits (US$0.5 million)	
Estimated disbursement	**US$2.0 million**	**US$2.0 million**	**US$2.0 million**	**US$0.5 million**	**US$0.5 million**

Note: IRI = Intermediate Results Indicator.

24. **The achievement of the scalable DLIs will require an Independent Verification.** The achievement of the scalable DLIs will require Independent Verification, including a report certifying the achievement of

such DLIs together with all necessary raw data/information for spot checks by the World Bank. To that end, the GoN will recruit, and maintain for the life of the proposed Project, an Independent Verification entity, acceptable to the World Bank. The Independent Verification entity will be locally hired so as to build local capacity and will be financed by the proposed Project. For all scalable DLIs, the Independent Verification entity will assess the degree of achievement under the protocols of verification.

C. Lessons Learned and Reflected in the Project Design

25. **The proposed Project seeks to focus World Bank support on quality of service delivery, building on lessons learned.** Previous World Bank support in Nicaragua focused mainly on access to preschool and basic education, the focus of the proposed Project is on quality of service delivery, and in particular, improving teaching practices, building on important lessons from past World Bank support to the sector:

(a) **First, to ensure strong buy-in and sustainability, the PDO is fully aligned with the main objectives of the 2017–2021 Education Sector Strategy.** The new 2017–2021 Strategy prioritizes education quality and places teacher quality at the center, with the support of improved teaching practices within the classroom. Project activities are aligned with this priority, ensuring strong buy-in.

(b) **Second, to strengthen institutional ownership and internal coordination in MINED, existing institutional mechanisms are being used for Project implementation.** Project activities will be managed and implemented by MINED, through its existing organizational structure as opposed to through a separate Project Implementation Unit. Relying on its own institutional arrangements creates stronger institutional ownership of MINED and internal alignment toward the desired results.

(c) **Third, the proposed Project will be focused on fewer activities to facilitate internal coordination and support greater educational impacts.** Past education projects have supported a multitude of activities, generating implementation challenges and difficulties to adequately supervise the work of many line directorates. The proposed Project, however, focuses on strengthening teaching practices, involving fewer technical teams that are more integrated and coordinated (including with fiduciary teams).

(d) **Fourth, DLIs are being used for the first time to strengthen the focus on results.** To move MINED focus away from inputs, the proposed Project will pilot a mechanism to link disbursement to achievement of results. Targets were selected not only to sustain sector progress but that also require coordinated efforts by MINED line directorates.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

26. **The proposed Project will be implemented by MINED.** As with the ongoing education projects (P126357 and P133557), MINED will be responsible for implementing activities through its existing organizational structure and line departments. Oversight responsibility will rest with a Project Coordinator, MINED's Vice Minister of Administrative Affairs. This position is fully financed by the GoN funds. The Project Coordinator is supported by a Project Support Team that is responsible for the supervision of all Project activities with the highest quality standards and within the adequate time frame. The Project Support Team is responsible for the day-to-day monitoring and supervision activities related to the Project. Implementation of Project activities will be carried out by the relevant technical directorates, including the General Directorate of Preschool Education (*Dirección General de la Educación Preescolar,* GDPSE); the General Directorate of Primary Education (*Dirección General de Educación Primaria*, GDPE); the General Directorate of Secondary Education (*Dirección General de Educación*

Secundaria, GDSE); the General Directorate of Teacher Training (*Dirección General de Formación Docente*, GDTT); the General Directorate of School Infrastructure (GDSI); and the General Directorate of Educational Planning and Programming. These directorates will benefit from technical assistance, equipment, and office supplies to strengthen their capacity to implement Project activities.

B. Results Monitoring and Evaluation

27. **The Project Support Team will be responsible for tracking progress related to Project outcomes and results on a day-to-day basis.** MINED's General Directorate of Educational Planning and Programming will be responsible for collecting administrative data (including from other directorates involved in implementation), monitoring results, and assessing progress toward the PDO. The proposed Project is also expected to produce data to facilitate tracking progress on the 2017–2021 Education Sector Strategy. In particular, it will support the collection, analysis, and dissemination of national and international student assessments to measure learning outcomes, and the collection of information on teacher practices in nationally representative samples. Furthermore, the Project Support Team will carry out, with support from the World Bank, continuous monitoring of activities, and an impact study in 2020 to assess the effectiveness of the teacher training program and the TMP for primary school teachers.

C. Sustainability

28. **The proposed Project is anchored in the 2017–2021 Education Sector Strategy, which is backed by a medium-term financial plan, including both national and external financing sources.** In particular, the proposed Project supports the GoN's efforts to tackle the challenges of the basic education system, including by supporting a refocus of education reforms on learning. The GoN's commitment to this agenda is demonstrated by its sustained spending in primary education as a share of gross domestic product (GDP).[16] The proposed Project seeks to introduce several innovations by shifting from a system focused on small and much less coordinated teacher training programs to a system that is more evidence-based and combines academic with classroom visits. In particular, the proposed Project will strengthen the academic teacher training with classroom visits and also develop a new mentoring approach based on a new classroom observation assessment tool for teacher practices which will also inform the content of the teacher trainings. These changes will also promote greater coordination across technical teams within MINED responsible for different teacher's programs and activities as they will be more closely coordinated. The latter will be achieved by institutionalizing classroom observation not only as a diagnostic tool but also as an input for teacher mentoring, building a culture of observation and feedback, and promoting the collection and use of information for decision-making.

29. **MINED will carry out a series of measures to foster the sustainability of infrastructure investments.** These include (a) carrying out construction in conformity with the Social and Environmental Plans; (b) ensuring MINED's legal ownership of schools targeted under the proposed Project; and (c) guaranteeing adequate use and maintenance of the works by (i) prioritizing the affiliation of targeted schools to the 'Safe, Clean and Pretty School' Program; (ii) training, with GoN resources, MINED regional and local delegates, school directors, and administrative staff on the use of the School Infrastructure Maintenance Manual; (iii) putting in place incentives for school directors, staff, and schools to reward better performance in maintaining facilities and/or school supplies; and (iv) carrying out communication

[16] *Nicaragua Social Sector Expenditures and Institutional Review*. World Bank, 2016.

campaigns focused on the use and maintenance of school infrastructure, aimed at students, local communities, and parent organizations. In addition, school furniture and equipment will not require replacement for several years (three to five years for textbooks and seven to ten years for furniture), which after the proposed Project ends, is expected to be financed out of the national budget.

D. Role of Partners

30. **The proposed Project is part of a broader package of technical and financial support.** The monitoring of progress on both the 2017–2021 Education Sector Strategy and the proposed Project will be carried out in coordination with the active Local Education Donor Group. Members include the European Union (technical and vocational education training, TVET), the Japanese International Cooperation Agency (school infrastructure), Luxembourg's Development Cooperation and the Spanish Agency for Development Cooperation (TVET), and the United Nations Children's Fund (early childhood development).

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

31. **The proposed Project's overall risk is rated as Substantial.** Three risks have emerged as substantial, potentially impacting the achievement of the PDO. First, the GoN has clear development priorities and high political commitment to World Bank-funded projects; however, decision-making based on political interests could affect Project activities. To mitigate this risk: (i) the proposed Project is fully aligned with the 2017–2021 Education Sector Strategy; (ii) Project design and preparation processes involved technical staff from all of MINED's line directorates to ensure full ownership of activities; furthermore, Project design was discussed with key institutional actors, such as the Presidency and the Ministry of Finance and Public Credit (*Ministerio de Haciendas y Crédito Público*, MHCP), to ensure political commitment at the highest levels, including the inclusion of the proposed Project in the Medium-Term Expenditure Framework; and (c) the proposed Project's OM and implementation plan and budget was adopted prior to negotiations.

32. **Two additional risks related to institutional and fiduciary capacity.** Contract management and effective control over bank guarantees in MINED has been a major area of concern as this could affect Project implementation. To mitigate this, MINED has recently approved a Directive requiring all bank guarantees to be verified with the financial institution that issued them before a contract is signed or prior to authorization of a first payment. To support implementation of that Directive, MINED has assigned specific responsibilities, defined procedures and internal controls, and put in place a procurement information system to record and control bank guarantees and provide information on contract management. Table 3 provides more detail on these risks and mitigation measures.

Table 3: MINED Institutional Constraints for Project Implementation

Area	Risk	Mitigation Measures
Institutional Capacity for Implementation and	Poor coordination between technical and fiduciary teams at MINED	(a) Streamlined processes and procedures have been put in place to support agile Project implementation; (b) key internal controls and transparency mechanisms have been strengthened; and (c) a procurement and management system has been put in place to

Area	Risk	Mitigation Measures
Sustainability		ensure that Project implementation is carried out in accordance with the OM.
	Weak information systems	A new planning and monitoring system will be operational in 2017, improving MINED's Project management capacity.
	Weak technical capacities related to infrastructure works and safeguard (for example, leading pre-investment studies and management of works)	An assessment of the management capacities of the General Directorate of School infrastructure, including the safeguard team, was carried out, resulting in the recent reorganization of the unit. Availability of pre-investment studies before Project effectiveness will significantly reduce the risk of implementation delays. Other mitigation measures include (a) developing 'standard' terms of reference to select consulting firms; (b) selecting firms for works supervision; (c) hiring technical consultants to support contract management and supervision of works; and (d) ensuring needed firms and consultants are hired before works contracts are signed.
Fiduciary	Lack of qualified personnel for fiduciary tasks and lack of adequate tools to monitor implementation	Additional fiduciary staff are being hired to support the proposed Project management. Moreover, MINED's procurement teams have already been trained in the new Procurement Framework. Tools and revised processes to monitor Project implementation are also being implemented. These include those related to contract management and bank guarantees to address the most urgent needs.

33. **The use of DLIs may create additional challenges for Project management and MINED's teams (technical, procurement, and fiduciary).** This new approach implies a shift in MINED's institutional culture, as policy discussions and disbursements under these subcomponents will be focused on results rather than just inputs. To help implement this new approach, an intensive communication process and training plan has been developed and is being developed closely with MINED and the MHCP. In addition, the DLIs have been carefully designed with the relevant teams within MINED, considering their own capacity, availability, and need for funds, as well as their motivation to set key milestones critical for achieving the PDO, as per their own sectoral priorities.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

34. **The economic analysis estimates a 12.24 percent internal rate of return and an overall benefit-cost ratio of 8.18.** The analysis relies on a variety of rigorous impact evaluations, meta-analyses, literature reviews, and complementary studies to estimate the impacts of this proposed Project on learning outcomes and additional years of schooling for the average student beneficiary. Benefits are based on estimates of the effects of (i) 'in-service' teacher training programs on student learning outcomes, which should lead to gains in productivity that would be realized as gains on earnings; and (ii) infrastructure investments on the number of years of schooling and potential returns in the labor market for the targeted beneficiaries. [17] Conservative assumptions were used in the analysis, including for basic education graduation rates and teacher training attrition rates. The internal rate of return is a lower-bound estimate,

[17] Benefits are estimated using a discount rate of 8% a year. This follows Campos et al (2016) and Hacienda (2016) which draw upon this rate to analyze cost effectiveness of public investment decisions in Nicaragua and in the Latin American region.

as there are other benefits from education that are difficult to estimate and are not fully captured in the calculations.

35. **According to the fiscal sustainability analysis, investing in this Project will not result in a burden on the GoN's fiscal accounts nor MINED's spending.** The average growth rate of the last ten years for Nicaragua's GDP and education spending was used to project spending during the life of the proposed Project. The cost of Project activities represents on average 1.93 percent of the total education budget over the life of the proposed Project. Given that this is a small percentage, MINED should be able to absorb these activities under its budget (including any associated recurrent costs). Moreover, from the first year of the Project, MINED will be financing certain activities complementary to Project Components out of its regular budget.

B. Technical

36. **The proposed Project draws on well-established evidence and global best practices for increasing access to quality education**. There is widespread evidence that teacher quality is the most important input to affect learning in developed countries (for example, see Chetty 2014).[18] Recently, Araujo et al. (2016)[19] showed that teacher quality, measured by teachers' classroom competency, has a significant impact on learning of primary students. Bruns and Luque (2015) also highlighted that grooming more effective teachers requires investing in classroom observation and supportive feedback to teachers to ensure a better assessment of their actual competencies. Moreover, teachers who receive an unsatisfactory evaluation are paired with a supervisor or senior teacher to provide hands-on support.[20] Thus the proposed Project will support a teacher in-classroom mentoring program based on a new classroom observation instrument, complemented with teaching and learning materials.

37. **Coaching and feedback have proven to be effective in low capacity contexts with an important impact on student learning.** Support to the education sector in Liberia showed an important impact in primary students' learning as a result of investment in school-based pedagogic support, resource materials, and books. The proposed Project will use an innovative classroom observation tool, drawing on recent lessons. While there are instruments to measure the effectiveness of teacher policies[21] and instruments for classroom observation (CLASS or Stallings, for example), the proposed Project seeks to combine both dimensions in a single instrument. In addition, recent literature emphasizes the importance of carrying out teacher training programs in adequate training centers, complementing teacher training programs with the provision of materials, and providing follow-up support in the classroom.[22]

38. **The sensitization of teachers on gender inclusiveness and strengthening socioemotional skills**

[18] Chetty, R., J. N. Friedman, and J. E. Rockoff. 2014. "Measuring the Impacts of Teachers I: Evaluating Bias in Teacher Value-Added Estimates." *American Economic Review* 104 (9): 2593–2632. doi: 10.1257/aer.104.9.2593.

[19] Araujo, M. C., P. Carneiro, Y. Cruz-Aguayo, and N. Schady. 2016. "Teacher Quality and Learning Outcomes in Kindergarten." *Quarterly Journal of Economics* 1415–1453. doi:10.1093/qje/qjw016.

[20] Liang, X., H. Kidwai, and M. Zhang. 2016. *How Shanghai Does It: Insights and Lessons from the Highest-Ranking Education System in the World*. World Bank. https://openknowledge.worldbank.org/handle/10986/24000. License: CC BY 3.0 IGO.

[21] *Smarter Education Systems for Brighter Futures*. World Bank, 2016.

[22] Evans, D., and A. Popova. 2015. "What Really Works to Improve Learning in Developing Countries? An Analysis of Divergent Findings in Systematic Reviews." Policy Research Working Paper, WPS 7203, World Bank.

of students may be promising approaches to reducing school dropouts. A growing body of evidence suggests that boosting socioemotional skills in youth can have positive impacts on education, health, and labor market outcomes in the short and long term.[23] Such skills have proven to not only increase economic outcomes but also lower incidence of teenage pregnancy. Promoting gender-sensitive classroom practices can help ensure that girls and boys can benefit from education equally and that they can feel empowered to build and achieve their aspirations. International experiences show that promoting gender sensitivity in classrooms may build more supportive school environments, prepare teachers to challenge gender discrimination, strengthen teacher skills to avoid gender stereotypes and proactively address issues such as gender-based violence, early marriage, or teenage motherhood in the classroom.

39. **There is also evidence that school infrastructure improvements and inputs such as furniture, textbooks, and other pedagogical materials may have positive effects on learning outcomes.**[24] In Kenya the distribution of official textbooks and materials increased the probability that students who stayed in school through grade 8 would complete primary school and enroll in secondary school.[25] There is also evidence from Paraguay that schools with better infrastructure perform better.[26] Also, textbooks may improve students' learning if they are well designed and targeted to the abilities of an average student.

40. **Evidence highlights distance to school and the state of school water and sanitation infrastructure matter, especially for girls' participation and learning outcomes.** In Nicaragua, only 26 percent of basic education schools have basic sanitation.[27] Moreover, in a 2003 study, one in four girls reported not feeling comfortable using school latrines (because of, among other things, risk of harassment by boys) and feeling unsafe when traveling to or from school.[28] In addition to boys' and girls' latrines being near one another, in some cases latrines may not have doors or be hygienic. This can be a disincentive to stay in school, particularly for girls as they approach the age of menstruation. Providing closer and safer access to schools and water and sanitation infrastructure can thus help reduce the risk of school dropout.

C. Financial Management

41. **Financial management (FM) will be carried out by MINED, which has experience in implementing World Bank-financed projects and has adequate fiduciary arrangements in place.** However, the nature and volume of transactions to be managed in this Project and the role of different administrative and technical units may result in potentially complex operational processes in MINED to register, control, and produce reliable and timely financial Project information. Also, the use of DLIs for

[23] Gimenez et al. 2015; see also: Bandiera et al. 2012; Cunningham and Villaseñor, 2014; UNFPA 2013; World Bank 2013.
[24] Glewwe, P. W., E. A. Hanushek, S. D. Humpage, and R. Ravina. 2013. "School Resources and Educational Outcomes in Developing Countries: A Review of the Literature from 1990 to 2010." In *Education Policies in Developing Countries*, edited by P. W. Glewwe, 13–26. Chicago: University of Chicago Press.
[25] Glewwe, P. W., and K. Muralidharan. 2016. "Improving Education Outcomes in Developing Countries: Evidence, Knowledge Gaps, and Policy Implications." In *Handbook of the Economics of Education*, edited by E. A. Hanushek, S. Machin, and L. Woessmann, Vol. 5, 657–743. Netherlands: Elsevier. doi: http://dx.doi.org/10.1016/B978-0-444-63459-7.00010-5.
[26] Otter, T., and C. Villalobos Barría. 2009. "Determinants of Student Achievements in the Primary Education of Paraguay." Ibero-America Institute for Economic Research Discussion Paper No. 198, Georg-August-Universität Göttingen, Goettingen, Germany.
[27] *Education for People and Planet: Creating Sustainable Futures for All*. Global Education Monitoring Report. Paris: UNESCO, 2016. http://unesdoc.unesco.org/images/0024/002457/245752e.pdf.
[28] Serra V., Luis, and Marcia Castillo S. 2003. "*Informe de Investigación: Situación de la Niñez y Perspectivas de Desarrollo Humano en Nicaragua*," as quoted in *Por qué hay niñas en Nicaragua que temen ir al baño en la escuela*, BBC Mundo (2016). http://www.bbc.com/mundo/noticias/2016/04/160318_nicaragua_ninas_escuela_banos_miedo_acoso_lv.

subcomponents 1.1.1 and 1.1.2 is new for MINED. Measures to enhance the fiduciary environment are outlined in the OM, and include (a) use of a procurement information system that will also allow the recording of Project commitments and provide basic contract management information; (b) simplified processes and procedures that incorporate specific controls over bank guarantees, timely recording of payment information, and periodic reconciliation of financial information; and (c) specific budget, accounting, funds flow, reporting, and audit arrangements for the subcomponents using DLIs. FM will be closely monitored during implementation to ensure timely availability of resources for the implementation of activities and subsequent achievement of DLIs. As part of the overall strengthening of MINED's institutional capacity, the World Bank will continue providing support for a comprehensive review of operational processes and the potential implementation of an integrated management system.

D. Procurement

42. **Procurement for the proposed Project will be carried out by MINED.** MINED has more than five years of experience with externally financed operations and a procurement capacity assessment carried out in November 2016 confirmed that MINED has the necessary capacity, adequate structure, and the requisite procedures in place to enable it to carry out procurement for the proposed Project. The Project Support Team will be responsible for all procurement and contracting-related queries and processing, including management and compliance with fiduciary requirements. A Procurement Plan for the first 18 months of the Project was developed and agreed upon (Annex 2). The proposed Project will be executed in accordance with the World Bank Procurement Regulations for Borrowers under Investment Project Financing (July 2016) ('Procurement Regulations') and the provisions stipulated in the Procurement Plan and the OM.

43. **A Project Procurement Strategy for Development (PPSD) was prepared and a series of mitigation measures will be implemented to ensure the satisfactory performance of procurement functions within MINED.** Based on the PPSD, which identified the appropriate selection methods, market approach, and type of review to be conducted by the World Bank, most Project activities will be carried out through national or international competition. There are several risks related to MINED's capacity, including poor planning of procurement actions, lack of technical ability to define technical specifications, and poor management and supervision of the works. To address these risks, a number of mitigation measures have been agreed upon with MINED, including (a) agreement on the necessary qualifications of procurement staff who will work for the proposed Project, and commitment that these will only be replaced with staff of equivalent qualifications acceptable to the World Bank; (b) strengthened key internal controls (technical specification, warranties, contract management, works supervision) and transparency mechanisms (publication of terms of reference and specifications, testing the market before launching procurement processes); (c) definition of clear roles and responsibilities of participating units in the OM; (d) alignment of all procurement procedures to be used under the proposed Project with the World Bank Procurement Regulations; and (e) inclusion of Special Procurement Provisions in the Procurement Plan. All procurement procedures are defined in the OM and published on MINED's web page.

E. Social (including Safeguards)

44. **Improving teaching practices and rehabilitation of schools will benefit some of the poorest rural regions of the country, including Indigenous Peoples (IP) and Afro-Descendant (AD) communities.**

Teacher training and distribution of learning materials will be done nationwide, while school infrastructure improvements will be carried out in 45 schools, of which around 10 percent will be in IP and AD communities. Consultations with IP and AD authorities and educational communities affirmed that the Project is supporting investments that they consider critical, with concerns mainly related to the cultural and linguistic adequacy of Project activities and resources not being sufficient to meet needs.

45. **There are four types of social risks related to the Project.** First, pre-investment studies for 119 schools were prepared under the ongoing projects (P126357 and P133557), during which consultations with educational communities and local authorities were carried out. However, the proposed Project will only finance works in 45 schools, leaving most of the communities with unmet expectations, unless other financing is secured. Second, rolling out generic national models for teacher training and materials distribution without taking into account diverse IP and AD cultures and languages could result in further undermining cultural identity, be considered irrelevant, or produce minimal results. Depending on the origin of the teachers, effective teaching training programs may need to focus on different skill sets to enhance teacher performance. Distributing learning materials to remote schools, often located in IP and AD communities, may require alternative and flexible operational arrangements to overcome difficulties in access that elevate costs in delivery. Third, ensuring inclusion of IP, AD, and the most marginalized communities in decision-making related to school infrastructure improvements will be critical, including in infrastructure design, selection of materials that factor in transport costs, interaction of contractors, and school maintenance and operation costs. Finally, temporary placement of children in alternative sites may be needed during construction periods to avoid interruptions in the school year.

46. **The policy on Indigenous Peoples, OP/BP 4.10, is triggered, given that IP communities will both benefit and potentially be affected by Project investments.** For the nationwide investments in teacher training and distribution of materials (Component 1), an Indigenous Peoples and Afro-descendants Plan (IPAP) was prepared that outlines specific measures requested by IP and AD authorities relative to these activities, helping to mitigate risk. The IPAP was prepared by updating the existing social assessment and was informed by a consultation process with IP and AD authorities and educational community stakeholders from the Central and North Pacific region, and the Autonomous Caribbean Regions of the North and the South. Regional consultations on the IPAP were held in January 2017, followed by a national workshop in which participants signed an act manifesting their broad support for the proposed Project and the IPAP, with the understanding that the final draft would be provided to them upon completion. The final IPAP was disclosed on the external websites of MINED and the World Bank on February 10, 2017.

47. **Given that the location of beneficiary schools to be supported under Component 2 is still unknown, an Indigenous Peoples and Afro-descendants Planning Framework (IPAPF) was prepared for this Component.** The IPAPF sets out processes to mitigate the third risk highlighted earlier and in particular, ensures that the processes for selecting beneficiary schools, engaging with local actors, adapting design or construction interventions, and mitigating potential impacts are carried out in ways that fully respect local, territorial, and regional IP and AD priorities, preferences, and concerns. The IPAPF will also ensure that locally relevant communication and grievance redress mechanisms are in place to solicit information and for communities to voice concerns and have their issues resolved appropriately and on time. The IPAPF was prepared in a participatory manner with IP and AD representatives at a national workshop in January 2017. A final version of the IPAPF will be disseminated to the workshop invitees and was disclosed on the external websites of MINED and the World Bank on February 10, 2017.

48. **The Involuntary Resettlement Policy, OP/BP 4.12, is not triggered as the proposed Project will not require involuntary taking of lands that could impact peoples' homes, access to assets or livelihoods.** Either all lands where Project investments will take place are owned fully by MINED, or in the cases of the autonomous regions or collectively owned lands, MINED has usage rights to these lands through agreements with the regional and local authorities. For infrastructure investments, land ownership or rights of MINED is a prerequisite for Project financing. This approach varies from the ongoing projects, where OP/BP 4.12 was triggered to cover the temporary relocation of students. However, the assessment for the Project concluded that the impacts caused by the temporary relocation will not induce impacts considered as 'involuntary resettlement' under the World Bank's policy. The existing Temporary Relocation Protocol includes provisions to ensure that school periods are not interrupted and that temporary spaces are provided on a voluntary basis and are accessible, safe, and meet the basic needs for a learning environment. This protocol has been integrated into the Project's Environmental and Social Management Framework (ESMF).

49. **To mitigate against unmet expectations of certain communities, MINED is seeking complementary funding to carry out additional infrastructure improvements.** At the same time, as part of the Project's social management strategy, a proactive outreach and communication approach will be used to inform those communities that are not selected about the investment selection criteria and prospects and timelines for supporting their schools with alternative financing.

50. **The proposed Project will also support several gender-sensitive interventions, namely gender-sensitive classroom practices and school infrastructure needs and strengthening of student socioemotional skills.** Under Component 1, the proposed Project will provide support for (a) developing and implementing a gender-informed module for socioemotional skills for students, and (b) measuring gender biases in teacher practices through classroom observation and student assessments. Under Component 2, school construction, improvement, and expansion will take into account standards recognizing specific requirements for sanitation facilities to provide girls with dignity and comfort.

51. **The Project also includes mechanisms to incorporate beneficiary feedback.** It will do so by (a) ensuring that information on student perception is collected as part of the student assessments, and (b) measuring teacher perceptions of the quality and relevance of the training and/or mentoring processes.

F. Environment (including Safeguards)

52. **The proposed Project triggers the policy on Environmental Assessment OP/BP 4.01 and is rated as Category B.** The proposed Project will finance construction activities that may potentially generate negative environmental impacts, although these are not expected to be significant and measures to prevent, mitigate, and compensate potential negative impacts are relatively standard and easy to implement. Works include construction, improvement, and rehabilitation of existing education infrastructure (offices, kitchens, libraries, washrooms, and so on) and associated drainage infrastructure, water supply and sewerage facilities, fences, and sport areas. The main environmental and safety considerations include measures related to management of solid waste, minimization of noise and dust impacts, management of wastewater, control of erosion and stability of slopes, and affectation of soil in working areas.

53. **Given that the location of the schools that will benefit from Component 2 is unknown, an ESMF was developed.** The ESMF was developed to reflect lessons learned and the environmental management tools developed during implementation of the previous Project. It was consulted on January 26, 2017, and disclosed on the external websites of MINED and the World Bank on February 10, 2017. Subprojects classified as B (moderate risk) require an Environmental Management Plan and subprojects classified as C (low risk) require the application of the Guidelines of Good Environmental and Social Practices (GGESP).

54. **Other environmental safeguards triggered include Natural Habitats OP/BP 4.04, Physical Cultural Resources OP/BP 4.11, and Pest Management OP/BP 4.09.** Some subprojects may be located in protected areas (buffer zones), especially in the North and South Caribbean Coast Autonomous Regions, but are on existing school plots. No significant impacts on natural habitats are anticipated because of the magnitude and scope of the works. The ESMF and the GGESP include specific measures to prevent any negative impacts in critical and sensitive areas as well as in case of 'chance finds' of physical cultural resources. The Pest Management Policy is triggered because of the potential use of pesticides during construction, although a separate Pest Management Plan is not needed, given the small scale of Project activities. Specific measures related to the use of pesticides are included in the ESMF and the GGESP. The Projects on International Waterways Policy OP/BP 7.50 is not triggered because the water supply, drainage, and sewerage works included will not require the use of, nor will they pollute, international waterways. MINED has officially confirmed this in a letter (January 24, 2017) to the World Bank.

G. World Bank Grievance Redress

55. **Communities and individuals who believe that they are adversely affected by a World Bank supported Project may submit complaints to existing Project-level grievance redress mechanisms or the World Bank'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 World Bank's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of World Bank 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 World Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service.
For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

VII. RESULTS FRAMEWORK AND MONITORING

Results Framework
COUNTRY : Nicaragua
Alliance for Education Quality Project

Project Development Objectives

The objective of the Project is to improve (a) teacher practices for participating teachers in preschool, primary and secondary education nationwide, and (b) physical learning conditions in targeted schools.

Project Development Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: PDOI1. Number of participating primary and secondary education teachers with improved teaching practices.		Number	0.00	2735.00	Annual	Education Statistics System	GDTT, GDPE, GDSE
Sub-PDOI1a. Number of participating primary school teachers with improved teaching practices		Number	0.00	2344.00	Annual	Education Statistics System	GDTT, GDPE

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Sub-PDOI1b. Number of participating secondary school teachers with improved teaching practices.		Number	0.00	391.00	Annual	Education Statistics System	GDTT, GDSE

Description: Teaching practices are measured by an index score from data collected through a new classroom observation instrument that captures, among other things, the following: (i) didactic planning of their teaching; (ii) implementation of learning strategies; and (iii) evaluation of student learning; the development of gender-sensitive classroom practices and student life skills will also be captured in the instrument. The composition of the index will vary according to educational level and other school characteristics. Under the Project each participating teacher will be observed three times during the academic year. An improvement in the teaching practices will be measured by the increase in the teacher's index score over the course of the academic year (e.g., this would be obtained by comparing the values of the index obtained in March vs November in the same academic year). Targets consider: (i) the target number of teachers that will receive mentoring each year (out of the 3,750 teachers that will be mentored during the whole Project); (ii) a target of 50 percent of primary school teachers and 25 percent of secondary school teachers improving their teaching practices. The expectation is that the teacher training course for primary school teachers (component 1.1.3) will also improve their teaching practices as measured by the new classroom observation instrument; and (iii) that 75 percent of those mentored would be primary school teachers, and the rest (25 percent) would be secondary school teachers; this reflects the approximate proportion of teachers in the system. Target values are cumulative and data collection frequency will be annual.

Name: PDOI2. Percentage of preschool teachers with desired teaching practices.		Text	Percent to be determined in 2017	30%	Annual	Education Statistic System	GDTT, GDPSE

Description: Teaching practices in preschool will be captured by generating a score based on relevant portions of the instruments in the country's preschool assessment system (SEIDI), which already includes a classroom observation tool. Throughout the Project, teachers will be observed three times: (a) pilot observation in mid-2016; (b) baseline observation in early 2019; and (c) follow-up observation in late 2020 (to be reported in 2021). The desired level of teaching practices will be established in the second half of 2017 after the development of the composition of the teaching practices score and its analysis using data from the pilot observation in mid-2016. Targets consider: (i) the number of preschool teachers nationwide; (ii) an end target of 30 percent of teachers improving their teaching practices as a result of the Project support. The sample of teachers used to measure this indicator will be representative at the national level and will be stratified according to relevant criteria.

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: PDOI3. Percentage of Project-supported schools meeting minimal physical quality standards.		Percentage	0.00	100.00	Annual	Education Statistics System	GDSI
Description: This indicator tracks the construction, rehabilitation or expansion of targeted schools, so as to meet the required physical condition for enhancing learning, as established by MINED (2008) Minimal physical quality standards include: (i) adequate classroom area per student (square meters); (ii) availability of adequate complementary service facilities (e.g., restrooms, libraries, computers, workshops, kitchens, storage and administrative offices); (iii) connection to water and sewage facilities and the pre- installation of electric services; (iv) compliance with safe school standards (regarding structural resilience to climate and disaster risks); (v) availability of security fences; and (vi) sufficient furniture or equipment. “Safe school standards’ are defined in the World Bank guidance tool “A Roadmap for Safer Schools” which is an operational tool that summarizes guidelines and standards to promote informed investments in the safety of new or existing school infrastructure at risk from natural hazards.							

Intermediate Results Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: IRI1. Number of in-service preschool teachers certified in the Preschool Teacher Training Program		Number	0.00	5500.00	Every three years	GDTT registries	GDTT, GDPSE
Description: The Preschool Teacher Training Program has four modules over a three year period. As of December 2016, there were 11,442 preschool teachers nationwide (assigned to formal and community preschools). The requirements for obtaining the final certificate are: (i) 80% attendance rate in each of the four modules, over the three-year period; and (ii) passing grades (namely, scoring 70 out of 100 points) in at least three out of the four modules. Intermediate milestones for this indicator, which are DLIs, include: (i) the Preschool Teacher Training Plan (which includes the definition of the Program) being designed, approved and operationally tested by late 2017; and (ii) at least 8,500 teachers enrolling and attending the first face-to-face session by 2018 (75 percent of all preschool teachers).							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: IRI2. Number of education personnel trained in teacher mentoring.		Number	0.00	500.00	Annual	GDTT registries	GDTT
Description: This indicator tracks the number of educational personnel that will mentor basic education teachers as part of the national TMP to be launched in 2019. 'Education personnel' refers to the asesores pedagogicos departamentales and school principals. The design and approval of the TMP is a key intermediate milestones for this indicator (DLI 4) to be met by 2018.							
Name: IRI3. Number of in-service basic education teachers who received at least three mentoring visits.		Number	0.00	3750.00	Annual	GDTT registries	GDTT, GDPE, GDSE
Description: This indicator tracks the implementation and roll-out of the new national TMP. Targets values are cumulative, and consider the number of teachers that received at least three mentoring visits per year (e.g. March, June and October). The development and validation of a national classroom observation instrument is a key intermediate milestone (DLI 2) to be met by late 2017. The mentoring process includes: (i) classroom observation (using the classroom observation instrument); (ii) personalized feedback on teacher practices based on the observation; (iii) teacher self-assessments; (iv) establishment (by the teacher and the mentor) of an individual teacher development plan focused on strengthening identified critical teacher practices; and (v) scheduling a follow-up strategy for the teacher development plan, among others. A total 3,750 basic education teachers will be mentored over the course of the Project, of which 2,500 will receive two years of mentoring (in two waves), and 1,250 teachers starting in 2021 will be mentored during one year.							
Name: IRI4. Number of in-service primary school teachers with gender-inclusive teaching practices.		Number	0.00	1938.00	Annual	Education Statistics System	GDTT, GDPE, GDSE
Description: This indicator accounts for the number of in-service teachers with a satisfactory score in the gender-inclusive teaching dimension within the classroom							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
observation instrument (specific items and levels in this dimension will be available in early 2018, after the validation process). Given that only primary teachers under the TMP will be subject to classroom observations, targets values consider: (i) the number of teachers to be mentored in 2019 * 0.25, (ii) the number of teachers to be mentored in 2020 * 0.30; and (iii) the number of teachers to be mentored in 2021 * 0.35. With the 2018 classroom observation baseline results target values could be revised.							
Name: IRI5. Percentage of in-service basic education teachers trained in two 'Strategies for improving teacher practices' TEPCE workshops.		Percentage	0.00	80.00	Annual	GDTT report	GDTT
Description: This indicator tracks the in-service teacher participation in the two modules (best practices and areas for improvement regarding teacher practices) identified in the TMP (i.e., 'Strategies for improving teacher practices' sessions). The modules will be designed by MINED and delivered each year through TEPCEs. These sessions will be based on the Summary Report that will be produced by MINED every semester, consolidating the data on the classroom observations carried out under the TMP. This Report will be delivered to TEPCE coordinators for their customization based on the observations corresponding to schools mapped to their respective areas. Target values are non-cumulative, and consider that at least 80 percent of basic education teachers attend one of two sessions delivered over the year. The Directorate of Evaluation and Educational Programming will verify actual participation based on the reports submitted by each TEPCE coordinator for the corresponding TEPCE sessions. The TEPCE workshops are customized depending on the education level.							
Name: IRI6. Number of in-service primary school teachers certified in the Teacher Training Program.		Number	0.00	22300.00	Annual	GDTT registries	GDTT, GDPE
Description: This indicator tracks the roll-out of the one-year Teacher Training Program for the 31,290 primary in-service school teachers (as of December 2016) over the four years of the Project. The Program wil be gradually implemented: for teachers of grades five and six in 2019; (ii) for teachers of grades three and four in 2020; and (iii) for teachers of grades one and two in 2021. Target values consider that, of the 10,430 teachers that would enroll each year, at least 7,000 would obtain the final certification. Targets are cumulative and data collection frequency is annual. The Program will be focused on improving pedagogies in the following core subjects: math,							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
language, natural sciences, social studies, as well as in student learning assessment strategies.							
Name: IRI7. Number of mentoring visits carried out by pedagogical counselors as part of the Primary Teacher Training Program.		Number	0.00	13680.00	Annual	GDTT registries	GDTT
Description: As part of the Teacher Training Program for primary school in-service teachers, each of the 800 asesores pedagogicos must carry out two mentoring visits per month over the course of the school year (excluding December and January). The only exception is for the month of July, when they must carry out only one due to the mid-year break. Hence, the total annual number of visits by the 800 pedagogical counselors is 15,200 visits per year (800*2*9.5). Target values are non-cumulative and they consider that at least 90 percent of the expected 15,200 visits per year will be carried out (15,200*0.9=13,680 annual visits).							
Name: IRI8. Number of in-service preschool and primary school teachers that received workbooks, planning charts and fungible materials.		Number	0.00	20000.00	Annual	Education Supplies registries	GDPE, GDPSE
Description: This indicator tracks the number of preschool and primary school teachers that: (i) receive learning material with a one year life-span; and (ii) are trained in the use of these learning materials as part of their teaching (in the case of preschool teachers). Materials for primary schools include: fungible material kits (e.g. sheets, cardboards, markers, scissors, foam, playdough and other manipulatives). Materials for preschool include: fungible materials, attendance sheets, didactic planning sheets, and student workbooks. Training in the use of learning materials for preschool teachers considers attendance to any training course covering this topic (e.g., the three year Preschool Teacher Training Program, the stand-alone 'Use and Handling of Learning Material' course, etc.). Targets are annual (non-cumulative) and consider all preschool teachers and primary school teachers for grades five and six.							
Name: IRI9. Number of in-service preschool and		Number	0.00	20000.00	Every three years	Education Supplies	GDPE, GDPSE

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
primary school teachers that received textbooks, teacher's guides and other educational supplies (including equipment).						registries	
Description: This indicator tracks the number of preschool and primary in-service school teachers that: (i) receive learning material with a three year life-span, and (ii) are trained in the use of these learning materials as part of their teaching (in the case of preschool teachers). Materials for primary schools include: textbooks for students and teachers, Teacher Guides, Curricular Guidelines and Manuals. Materials for preschool include: USB drives, music players, musical instruments and other small equipment. Training in use of learning materials for preschool teachers considers attendance to any training course covering this topic (e.g., the three year Preschool Teacher Training Program, the stand-alone 'Use and Handling of Learning Material' course, etc.). Target values are non-cumulative and consider all preschool teachers and primary school teachers for grades five and six.							
Name: IRI10. Learning outcome results in student or child development assessment analyzed and disseminated nationwide.		Text	Yes (TERCE report)	Yes	Annual	Department of Learning Assessments and Childhood Development Report	Department of Learning Assessments and Childhood Development
Description: This indicator tracks the progress towards learning outcome results being analyzed and disseminated nationwide each year, including the distribution and presentation of a Summary Report and Guide on strategies for improving learning outcomes, based on the assessment results, in at least one TEPCE workshop per year.							
Name: IRI11. Teacher training and teacher mentoring programs whose design or implementation have been adjusted according to student and		Text	Not started	TMP and Teacher Training Plan for Primary updated	Annual	GDTT Report, Education Statistics System.	GDTT, Department of Learning Assessments and Childhood Development

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
child development assessments, and teacher mentoring results.							
Description: This indicator tracks the revision and updating of MINED's national teacher training and teacher mentoring programs, taking into account the available results and best -practices guides of student/child development assessment and classroom observations. Targets for the first years consider feedback using the results of evaluations applied before 2017. A key intermediate milestone to be met by late 2017 includes updating the Preschool Teacher Training Plan using SEIDI pilot results.							
Name: IRI12. Study to assess the effectiveness of the in-service Teacher Training Program and the TMP for primary school teachers.		Text	Not started	Final Report	Annual	Project report	Education Research Department
Description: This indicator tracks the extent to which a study to assess the effectiveness of two of the main programs under Component 1 (Primary in-service teacher training program and TMP) has been carried out. The sample-based study, will have an experimental design so as to assess the cause-effect relationship between: (i) the two programs; and (ii) pedagogical practices and student learning. Frequency is annual as key milestones are: (i) a study design; (ii) a baseline report; and (iii) a final report.							
Name: IRI13. Percentage of targeted schools included in a National Program aimed at involving the community in school maintenance.		Percentage	0.00	100.00	Annual	Education Statistics System	GDSI
Description: This indicator ensures sustainability of construction works defined in Component 2, by tracking the adoption of the community-based school maintenance program in Project-supported rural schools (e.g., "Pretty, Clean and Safe School Program"). Target values are cumulative.							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: IRI14. Update and reproduction of institutional norms and standards documents for the planning, design and maintenance of school infrastructure.		Yes/No	N	Y	Twice over the course of the Project	Project report	GDSI
Description: The norms and standards documents for school infrastructure will be updated and disseminated, and will include a gender approach, and a focus on adaptation to climate change and disaster risk management by financing the update and publication of: (i) Care and Maintenance Manual for School Facilities; (ii) Standards and Design Criteria for School Facilities; and (iii) Guide for Good Environmental and Social Practices.							
Name: IRI15. School Infrastructure Planning System used for educational planning		Text	Not started	Public investment projects led by MINED are based on the prioritization suggested by the School Infrastructure Planning System	Continous process over the course of the Project	School Infrastructure System	GDSI
Description: This indicator tracks the implementation and use of a School Infrastructure Planning System as well as its articulation with other planning systems within MINED.							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: IRI16. Number of teachers that provide qualitative feedback on quality of classroom observation/mentoring during the mentoring sessions.		Number	0.00	625.00	Annual	Project Report	GDTT, GDPE, GDSE
Description: Feedback provided by teachers will be confidential. Target values are cumulative and consider a 10 percent representative sample of all teachers being mentored each year (year one: 1,250; year two:, 2,500; and year three: 2,500).							
Name: Direct project beneficiaries	✓	Number	0.00	69300.00	Annual	Education Statistics System	Project Coordinator Bureau
Female beneficiaries	✓	Percentage	0.00	50.00		Education Statistics System	Project Coordinator Bureau
Description: Direct beneficiaries are people or groups who directly derive benefits from an intervention (i.e., children who benefit from an immunization program; families that have a new piped water connection). Please note that this indicator requires supplemental information. Supplemental Value: Female beneficiaries (percentage). Based on the assessment and definition of direct project beneficiaries, specify what proportion of the direct project beneficiaries are female. This indicator is calculated as a percentage.							

Target Values

Project Development Objective Indicators

Indicator Name	Baseline	YR1	YR2	YR3	YR4	End Target
PDOI1. Number of participating primary and secondary education teachers with improved teaching practices.	0.00	0.00	547.00	1641.00	2735.00	2735.00
PDOI2. Percentage of preschool teachers with desired teaching practices.	Percent to be determined in 2017		5%		30%	30%
PDOI3. Percentage of Project-supported schools meeting minimal physical quality standards.	0.00	15.00	55.00	88.00	100.00	100.00
Sub-PDOI1a. Number of participating primary school teachers with improved teaching practices	0.00		469.00	1407.00	2344.00	2344.00
Sub-PDOI1b. Number of participating secondary school teachers with improved teaching practices.	0.00		78.00	234.00	391.00	391.00

Intermediate Results Indicators

Indicator Name	Baseline	YR1	YR2	YR3	YR4	End Target
IRI1. Number of in-service preschool teachers	0.00				5500.00	5500.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	End Target
certified in the Preschool Teacher Training Program						
IRI2. Number of education personnel trained in teacher mentoring.	0.00		500.00			500.00
IRI3. Number of in-service basic education teachers who received at least three mentoring visits.	0.00		1250.00	2500.00	3750.00	3750.00
IRI4. Number of in-service primary school teachers with gender-inclusive teaching practices.	0.00	0.00	313.00	1063.00	1938.00	1938.00
IRI5. Percentage of in-service basic education teachers trained in two 'Strategies for improving teacher practices' TEPCE workshops.	0.00			80.00	80.00	80.00
IRI6. Number of in-service primary school teachers certified in the Teacher Training Program.	0.00	0.00	7000.00	14500.00	22300.00	22300.00
IRI7. Number of mentoring visits carried out by pedagogical counselors as part of the Primary Teacher Training Program.	0.00	0.00	2880.00	13680.00	13680.00	13680.00
IRI8. Number of in-service preschool and primary school teachers that received workbooks, planning charts and fungible materials.	0.00		20000.00	20000.00	20000.00	20000.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	End Target
IRI9. Number of in-service preschool and primary school teachers that received textbooks, teacher's guides and other educational supplies (including equipment).	0.00		20000.00			20000.00
IRI10. Learning outcome results in student or child development assessment analyzed and disseminated nationwide.	Yes (TERCE report)	Yes (eg. SEIDI baseline)		Yes (eg. SEIDI follow-up)	Yes (eg. ERCE, National Learning Evaluation)	Yes
IRI11. Teacher training and teacher mentoring programs whose design or implementation have been adjusted according to student and child development assessments, and teacher mentoring results.	Not started	TMP and Teacher Training Plan for Primary updated (using TERCE and National Learning Evaluation)	TMP updated (using TMP results)	TMP updated (using TMP results)	TMP and Teacher Training Plan for Primary updated (using ERCE and National Learning Evaluation)	TMP and Teacher Training Plan for Primary updated
IRI12. Study to assess the effectiveness of the in-service Teacher Training Program and the TMP for primary school teachers.	Not started		Study designed	Baseline report	Final report	Final Report
IRI13. Percentage of targeted schools included in a National Program aimed at involving the community in school maintenance.	0.00	15.00	55.00	85.00	100.00	100.00
IRI14. Update and reproduction of institutional norms and standards documents for the planning, design and maintenance of school infrastructure.	N	N	N	Y	Y	Y
IRI15. School Infrastructure Planning System used for educational planning	Not started	System developed and implemented integrates	Specialists at the regional level feed the System periodically.	National Public Investment Plan based on information from	Public investment projects led by MINED are based	Public investment projects led by

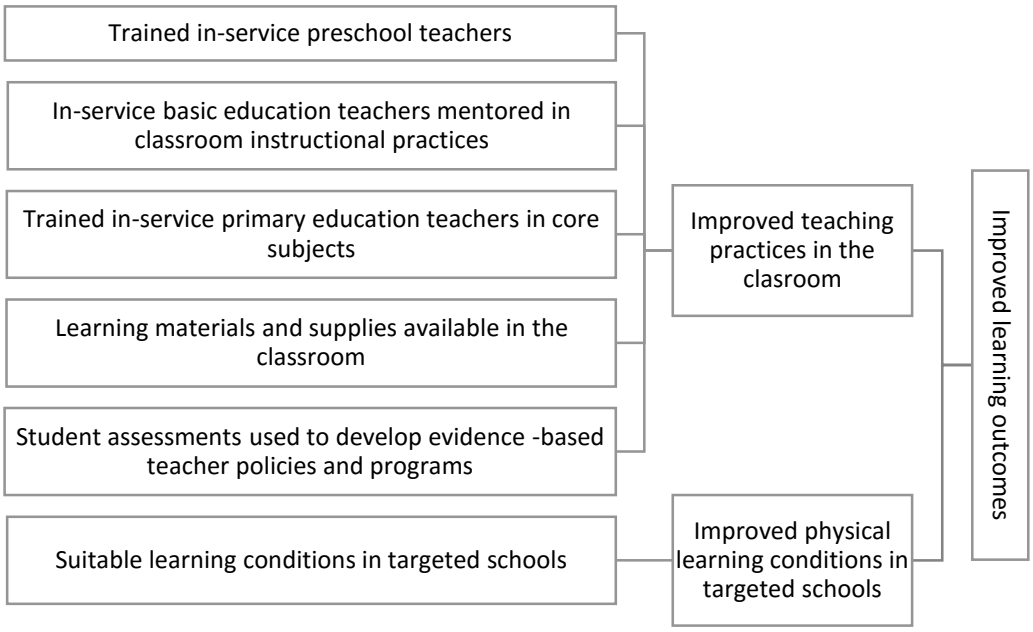
Indicator Name	Baseline	YR1	YR2	YR3	YR4	End Target
		existing information.		the School Infrastructure Planning System.	on the prioritization suggested by the School Infrastructure Planning System	MINED are based on the prioritization suggested by the School Infrastructure Planning System
IRI16. Number of teachers that provide qualitative feedback on quality of classroom observation/mentoring during the mentoring sessions.	0.00		125.00	375.00	625.00	625.00
Direct project beneficiaries	0.00	15230.00	32467.00	56633.00	69300.00	69300.00
Female beneficiaries	0.00	50.00	50.00	50.00	50.00	50.00

ANNEX 1: DETAILED PROJECT DESCRIPTION

COUNTRY: Nicaragua
Alliance for Education Quality Project

1. **The objective of the Project is to improve teacher practices for participating teachers in preschool, primary and secondary education nationwide and physical learning conditions in targeted schools.** Through this, the proposed Project will contribute to improve learning outcomes in the country, complementing national and other donor´s efforts regarding the implementation of the 2017–2021 Education Sector Strategy. The results chain is shown in Figure 1.1.

Figure 1.1: Results Chain for the Alliance for Education Quality Project



2. **The Nicaraguan education sector is faced with poor learning outcomes, high repetition and overage rates, and high inequality in access to quality education.** Besides demand-side factors, such as liquidity constraints and motivation, that may explain differences in attendance and performance in basic education, several supply-side bottlenecks are likely contributing to these challenges: (a) uneven teacher attendance rates, (b) teaching strategies that are not aligned with the diverse learning needs, and (c) distance of schools and poor quality of school infrastructure. Considering these challenges, the proposed Project will focus on two key areas: (i) improving teacher practices in preschool, primary and secondary education nationwide and (ii) improving physical learning conditions in targeted schools. These areas are fully aligned with the GoN's national priorities set forth in the 2017–2021 Education Sector Strategy. The proposed Project also builds on previous and ongoing World Bank-financed projects, as well on current and pipeline support by other partners to improve the quality of basic education in Nicaragua. The Project will achieve its development objective through the implementation of three Components.

3. ***Component 1. Improving Teacher Practices for Participating Teachers in Preschool, Primary and Secondary Education Nationwide (US$24 million).*** This Component aims to (a) improve teacher practices

nationwide through provision of 'in-service' training for pre-school and primary teachers, mentoring for basic education teachers, and provision of learning materials for preschool and basic education teachers; and (b) strengthen MINED's capacity to use student and child development assessments and lead research on education interventions to enhance the quality of teacher practices.

4. **Subcomponent 1.1. Improving teacher practices for participating teachers nationwide (US$22.2 million).** This subcomponent will finance, among others, the following activities:

1.1.1 **Revising and implementing an in-service teacher training plan for pubic preschool teachers, focused on the improvement of teacher practices, through the provision of financing for EEPs (US$5.2 million).** The proposed Project will finance the revision and implementation of a preschool teacher training plan that includes the design and implementation of a teacher training course. The course targets approximately 11,500 preschool teachers in the country. Ten contracted specialists will develop the course contents and train, supported by 38 teachers from the teacher training institutes, 270 trainers (mostly pedagogical advisors) over 24 full-day sessions. These trainers will, in turn, train around 11,500 preschool teachers over a period of three years. The course will cover four modules based on the curriculum and the latest evidence related to early childhood development and education, and will include (a) group sessions with the trainer at the beginning and end of each module; (b) self-learning and hands-on practical application in their classrooms; (c) two types of group-based workshops to discuss content and strategies, share experiences, and assess strengths and practices; and (d) in the case of some teachers, individual mentoring visits from the trainers to their classrooms to support their practices. Although the proposed Project will target all teachers and an 'in-service' training certificate will be provided upon completion, it is expected that around 8,500 teachers will enroll, with 5,500 certified.[29] This subcomponent will finance selected EEPs related to teacher training, including teacher salaries, services, and provision of goods.

1.1.2 **Designing and implementing a new national TMP for basic education teachers, led by school principals and pedagogical advisors, based on classroom observation to assess teacher practices, provide feedback, and develop a teacher professional development plan, including follow-up visits, through the provision of financing for EEPs (US$1.8 million).** The proposed Project will provide technical assistance for the development and implementation of a national TMP by MINED. The TMP is innovative as it (a) promotes the use of a new classroom observation instrument as a diagnostic tool and is an input for teacher mentoring; and (b) builds the foundations for a culture of observing and sharing feedback to strengthen teachers in classroom practices. MINED will train a core team of 500 school principals and pedagogical advisors, in classroom observation and teacher mentoring strategies. These 500 'teacher mentors' will carry out the mentoring process through a gradual rollout strategy: a first cohort of 1,250 teachers will be observed and mentored during 2019 and 2020, a second cohort of an additional 1,250 teachers will be observed and mentored during 2020 and 2021, and a final cohort of 1,250 teachers observed and mentored during 2021. The mentoring process includes (a) classroom observation (using a local observation instrument to be

[29] MINED will provide a monetary reward for completing the training and being certified. This is designed to reduce program attrition. The monetary amount is quite significant for the majority of the teachers who do not have a formal degree and who number about 8,400 of the total 11,500 preschool teachers. The monetary reward will represent approximately 10 percent of their modest monthly stipend. For the other group of formally certified teachers, the reward is less significant (closer to 2 percent).

developed, piloted, and validated); (b) personalized feedback on teacher practices based on the observation; (c) self-assessment by teachers; (d) preparation (by the teacher and the mentor) of an individual teacher development plan focused on strengthening identified critical teacher practices; and (e) formulation of a follow-up strategy for the teacher development plan, among others. Each teacher will be observed and mentored at least three times each year (for example, March, June, and November). Findings from classroom observations and lessons from the TMP will be shared at least once a year at the Evaluation, Programming and Educational Training Workshops (*Talleres de Evaluación, Programación y Capacitación Educativa*, TEPCEs). This subcomponent will finance selected EEPs related to teacher training, including teacher salaries, services, and provision of goods. Detailed activities in this subcomponent include the following:

(a) **Developing, piloting, and validating a national classroom observation instrument.** The instrument will measure teacher practices, in particular (i) didactic planning, (ii) teaching strategies, and (iii) evaluation strategies, among others. It will be based on both existing observation guides used by MINED and adaptations of existing international classroom observation instruments that have been validated in other relevant contexts. The instrument will be developed in 2017 and piloted in 2018 in a nationally representative sample of teachers.

(b) **Producing summary reports on teacher practices based on nationally representative classroom observation data.** The teacher observation and mentoring will take place among a nationally representative sample of teachers and cover additional teachers during 2019–2022. The information collected will be processed, analyzed, and developed with user-friendly summary reports, with the results targeting different audiences. In some cases, these summaries will include guides on key identified teaching strategies. They will be shared, among others, with MINED key staff, TEPCE coordinators, principals, and teachers to strengthen teaching practices.

(c) **Disseminating results and recommendations, based on the TMP, through TEPCEs.** TEPCEs are monthly workshops aimed at assessing, planning, and training all preschool and basic education teachers, principals, and pedagogical advisors of each municipal cluster on key topics regarding teaching.[30] The proposed Project will provide technical assistance to TEPCE coordinators in designing and delivering short sessions in at least two of the scheduled TEPCEs to cover best practices and areas for improvement regarding teacher practices identified in the TMP. This activity will substantively broaden the potential scope toward all basic education teachers.

1.1.3 **Revising and implementing an in-service teacher training program for primary school teachers, focused on pedagogies for core subjects, and augmented with life and behavioral skills, including selected gender-sensitive topics (US$5.5 million).** The proposed Project will finance the redesign and implementation of a yearlong in-service teacher training program covering four key subject areas: math, Spanish, natural sciences, and social studies, as well as student learning assessment strategies. The course will also include a module on how to foster life and behavioral skills among all students, playing special attention to gender-sensitive topics, such as teenage pregnancy and early

[30] There are 11 TEPCE workshops annually carried out in municipal facilities.

marriage and on gender stereotypes (based on the work led by the Education Community Councils). Five specialists will design the courses and materials. The life skills and gender module will heavily build on existing national initiatives which will be informed also by international experiences. A total of 40 teachers from the teacher training institutes and national-level pedagogical advisors will form the core training team. This core training team will train 800 regional and municipal pedagogical advisors and other education specialists. The 800 trainers will then train roughly 31,000 primary education teachers (in three waves, one per year) on the five modules, supported by the core training team. The training course will be delivered through a mixed approach with ten face-to-face sessions during the year, self-paced learning, and in the case of some primary school teachers, concentrated mentoring support entailing visits from the trainers. The proposed Project will finance services (technical assistance to design and implement these courses); goods (that is, materials for teacher trainers, mentors, and teacher participants); and operating costs (per diems).

1.1.4 **Providing learning materials and training teachers on how to best use them in the classroom (US$9.7 million).** The proposed Project will finance the provision of quality preschool and basic education learning materials. Learning materials include student workbooks; teacher's planning charts and attendance sheets; and fungible materials (for example, sheets, cardboard, markers, scissors, foam, playdough, etc.); as well as student textbooks; teaching guides; and other educational supplies including equipment (for example, music players and musical instruments). In particular, this subcomponent will finance (a) printing and distribution of learning materials for the existing curriculum[31] targeted to grades 4, 5, and 6 in multi-grade schools; preschool; grades 1 through 6 in regular schools; and grades 7 through 11 in Intercultural Bilingual Education schools;[32] (b) provision of textbooks, guides, and educational supplies for preschool and primary schools; and (c) development of a strategy for the provision and training on the classroom use of learning materials. The proposed Project will provide technical assistance for teacher training aimed at strengthening teaching strategies using the provided learning materials, as well as developing a distribution strategy and delivery monitoring mechanism.

5. **Subcomponent 1.2. Strengthening MINED's capacity to collect and analyze student assessments, and lead studies on teacher practices (US$1.8 million).** This subcomponent aims at generating and using information to (a) ensure that teacher training and monitoring programs are informed by national, international and regional experiences; (b) ensure they respond to local needs and challenges; and (c) assess the effectiveness and impact of each of these programs and their mechanisms, by, among others, (i) financing the collection and use of information on national student and child development assessments; and (ii) developing and using research and impact studies to validate the effectiveness of key programs focused on teacher practices.

1.2.1 **Collecting, processing, analyzing, disseminating, and using national child development and student learning assessments for improving teacher practices.** This subcomponent will strengthen the system's capacity to carry out, process, analyze, disseminate, and use diagnostic student assessments as a way to improve the cost-effectiveness of ongoing nationwide interventions such as the National Evaluation Strategy, the Teacher Training Strategy, and the Teacher Mentoring Strategy,

[31] In 2015, the learning curriculum was revised for grades 4, 5, and 6, and lower secondary grades as well as the instruments for Intercultural Bilingual Education. The Project will finance the printing and distribution of the new learning materials.
[32] In Miskitu, Ulwa, Tahka, Pamanahka, and Creole native languages.

among others. In particular, the proposed Project will provide technical assistance and finance operating costs (including equipment for data collection) related to the collection and analysis of child development and student assessments including, among others, (a) participation in international assessments (for example, UNESCO's grades 3 and 6 assessments); (b) implementation of national early childhood development and student assessments in basic education (such as for reading and math proficiency, to inform training programs on time); (c) strengthening MINED's institutional capacity to analyze, present, and use the assessment results; and (d) strengthening the student evaluation data management system.

1.2.2 **Developing and using research and carrying out an impact study to enhance the quality of the teacher training and mentoring programs.** This subcomponent will finance a study to assess the effectiveness of the TMP (1.1.2) and the revamped 'in-service' teacher training program for primary school teachers (1.1.3). The study will have a design that will allow to assess the causal relationship between each of these two programs on the one hand and pedagogical practices and student learning on the other hand. This implies, among others the definition of an intervention and a control group, which are randomly selected. The sample size for the evaluation will be of approximately 350 teachers. There will be a control group and three treatment arms: (a) the in-service teacher training program for primary school teachers would be treatment 1; (b) the in-service teacher training program for primary school teachers with the concentrated mentoring support would be treatment 2; and (c) the in-service teacher training program combined with the TMP would be treatment 3. The National Research Commission will provide technical and complementary financial support for this study. The study will be conducted in 2020 with a baseline and endline at the beginning and end of the year, respectively. This study will analyze potential mechanisms and will collect information about student home environments and community characteristics.

6. ***Component 2. Improving the Physical Learning Conditions in Targeted Schools (US$27.2 million).*** **The proposed Project will finance the rehabilitation, replacement, and/or expansion of school infrastructure, including furniture and educational equipment, to improve physical learning conditions in approximately 45 targeted schools selected in accordance with the criteria set forth in the OM.** The targeted schools are located in municipalities supported by on-going World Bank-supported projects, selected on the basis of the poverty level and key education indicators, such as enrollment and primary education survival rates. Criteria for selection of the schools also include: (i) condition of the school infrastructure; (ii) number of students enrolled in basic education; (iii) number of schools located in surrounding areas; (iv) location of the school on land owned by MINED; and (v) environmental impact of the works expected to be low. This Component seeks to improve physical learning conditions so as to comply with the following minimal physical quality standards: (a) adequate classroom area per student (square meters); (b) availability of adequate complementary service facilities (for example, restrooms, libraries, computers, workshops, kitchens, storage, and administrative offices); (c) connection to water and sewage facilities and the installation of electric services; (d) compliance with safe school standards (regarding structural resilience to climate and disaster risks); (e) availability of security fences; and (f) sufficient furniture or equipment (MINED 2008). Designs will be adapted, where necessary, to conform to regional architectural norms and materials, in particular for those schools located on the Caribbean Coast. In particular, given that Nicaragua is a natural disaster-prone country, school infrastructure will be designed and built according to the Safer School Guidelines to reduce vulnerability to flooding, storm surges and earthquakes, and other climate change related events and provide adequate shelter in the case of such events. The Guidelines include standards for civil works and landscaping to increase

infrastructure resiliency, reduce unusable surface, and improve water runoff management. Green building design principles will also be used to reduce energy consumption. Finally, this Component will pursue gender equity goals by financing updates to Nicaraguan school construction norms and standards taking into account specific requirements by gender and for people with disabilities.[33]

7. ***Component 3. Supporting Project Management and Monitoring (US$3.8 million).*** **This Component will strengthen the technical and fiduciary capacity of MINED by (3.1) supporting the development of an infrastructure management system to monitor the implementation of activities under Component 2; and (3.2) supporting the fiduciary management system for overall Project implementation, including support for Project management and monitoring, and audit costs.** Technical assistance will be provided to strengthen MINED's implementation and monitoring capacity as well as training for MINED's personnel. This Component will finance equipment and supplies for MINED's facilities, including regional and local offices, as well as computer equipment and software, furniture, operating costs, and other supplies to support implementation.

[33] This includes new designs for restrooms, responding to gender needs and other elements that take into account gender equity perspectives, such as school safety, lighting, and complementary services.

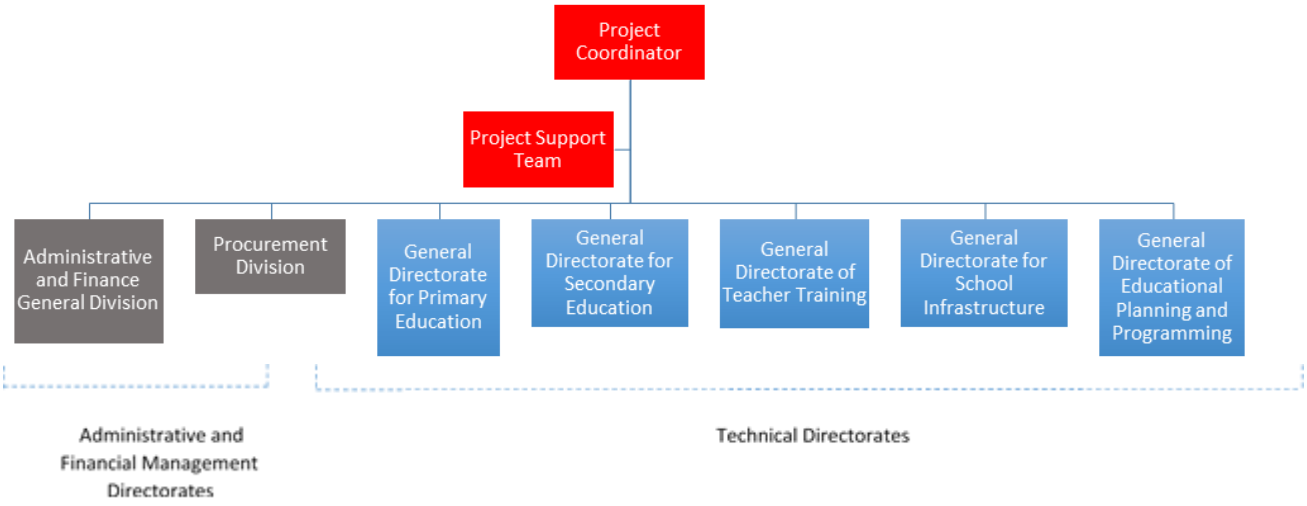
ANNEX 2: IMPLEMENTATION ARRANGEMENTS

COUNTRY : Nicaragua
Alliance for Education Quality Project

Project Institutional and Implementation Arrangements

1. **The proposed Project will be implemented by MINED.** Project activities will be managed by MINED through its existing organizational structure and line departments. Oversight responsibility will rest with a Project Coordinator, MINED's Vice Minister of Administrative Affairs. This position is fully financed by the GoN funds. The Project Coordinator is supported by a Project Support Team that is responsible for the supervision of all Project activities with the highest quality standards and within the adequate time frame. The Project Support Team is responsible for the day-to-day monitoring and supervision activities related to the Project. Implementation of Project activities will be carried out by the relevant technical directorate, including preparation of terms of reference for technical assistance and technical specifications for procurement of goods, assisted as necessary by short-term technical assistance. MINED will also coordinate and collaborate closely with its departmental and municipal delegations, as well as with the Education Secretariats of the two Autonomous Governments of the Atlantic regions.

Figure 2.1: Project Organization Chart



2. **Figure 2.1 shows MINED's organizational chart with respect to management and implementation of the Project.** The Project Support Team coordinates and oversees day-to-day technical implementation, including environmental and social safeguards and fiduciary management carried out by the relevant technical directorates. A Social Safeguards Coordinator will be housed within the Project Support Team to oversee the implementation of all the environmental and social safeguards activities. He/she will be supported by two specialists, also fully financed by the Project, fully dedicated to the social safeguards and environmental activities related with teacher trainings and infrastructure rehabilitation.

The Administrative and Financial General Division (*Division General Administrativa Financiera*, AFGD) will be responsible for FM, disbursement request preparation, Statements of Expenditures, audits, and so on, while the Procurement Division will handle Project procurement (preparation of bid documents, bid evaluation, contracts, and so on). The Project Coordinator will also have a critical capacity-building and training role within MINED to ensure that each of the various directorates deliver key inputs on time and in the correct format. The Project Coordinator will be the primary point of contact with the World Bank and ensure effective interaction between the FM, safeguards, and procurement teams in MINED.

3. **Although MINED has more than a decade of experience in implementing World Bank projects, inadequate implementation capacity remains a serious challenge.** To help strengthen MINED, Component 3 will finance strengthening of MINED's management capacity through technical assistance to all implementing units, as well as provision of equipment and funding of operating costs. This is expected to help ensure the delivery of quality products and services, facilitate disbursement, and strengthen due diligence on fiduciary and safeguards matters, as well as increase MINED's implementation capacity.

Financial Management

4. **Although MINED has adequate fiduciary arrangements in place, risk is substantial given the nature of the Project.** An assessment was carried out to evaluate the adequacy of MINED's FM arrangements to support Project implementation, including proper control, recording, and reporting of Project expenditures. Risk is assessed as Substantial due to the following factors: (a) the implementation of multiple activities of different nature (for example, scholarships, infrastructure and equipment, acquisition of education material, consultancies, training, and operating costs) may result in potentially complex operational process in MINED to register, control, and produce reliable and timely Project financial information; (b) while MINED has basic arrangements in place, it lacks an integrated automated management tool that allows for an orderly and systemic recording, control, and monitoring of activities, creating inefficiencies that could cause delays in Project implementation and prevent MINED from providing timely and reliable information for decision-making and monitoring purposes; and (c) the use of DLIs for some subcomponents is new for MINED. Thus, FM will be closely monitored during implementation to ensure timely availability of resources for the implementation of activities and subsequent achievement of DLIs.

5. **Measures to enhance the fiduciary environment have been agreed and are reflected in the OM.** These include (a) use of a procurement system that will allow the recording of Project commitments and provide basic contract management information; (b) simplified processes and procedures that incorporate specific controls over bank guarantees, timely recording of payment information, and periodic reconciliation of financial information; and (c) specific budget, accounting, funds flow, reporting, and audit arrangements for the subcomponents using DLIs.

6. ***Organization and staffing.*** **Within MINED, the AFGD is responsible for FM functions.** It is a well-established unit which has budget, accounting, financial control, and treasury units under its Finance Division to cover routine functions. Additionally, for externally financed projects, the Division has created a Project Accounting Office within the Finance Division, which has a Finance Coordinator, two Finance Specialists, and four Finance Analysts, in general with qualifications and experience with World Bank-financed operations. Thus this Project Accounting Office will be responsible for Project budgeting,

accounting, disbursements, financial reporting, and auditing functions in coordination with the respective units of the AFGD. Staff of the Project Accounting Office will be financed under the Project and terms of reference for those positions are included in the OM.

7. ***Budget and planning.*** **Preparation of the Annual Operating Plan and budget will be carried out in accordance with country regulations.** Project annual planning will be led by MINED's Planning Unit in coordination with technical teams and the AFGD's Budget Office. Aggregate Project expenditures will be integrated into MINED's multiannual budget through the annual budget formulation process. Between August and September of each year, MINED will prepare its tentative investment program for the following year, based on the budget policy provided by the MHCP. The proposed investment program will then be entered into the national public investment system and, once approved, reflected in MINED's budget proposal. This budget, in turn, will be integrated into the General Budget by the MHCP for its submission to the National Assembly by each October. The Project budget will be processed, recorded, and executed through the country's Integrated Financial Management System (*Sistema Integrado de Gestión Financiera*, SIGFA). MINED will define a Project budget programmatic structure to enable it to identify Project expenditures within the institutional budget.

8. ***Accounting system, policies, and procedures.*** As a public sector entity, MINED keeps all its budgeting and accounting records in SIGFA. Therefore, Project transactions will be accounted for in SIGFA following government accounting policies and practices. Thus, Project budget execution is subject to internal controls and approvals built in the system. Under the current projects, the use of SIGFA is complemented with the Institutional Financial Management System (*Sistema Institucional de Administración Financiera*, SIAF), which allows recording of Project expenditures in United States dollars classified by Project Component and/or cost category. Transactions processed in SIGFA are simultaneously recorded in SIAF and financial monitoring reports are directly issued from SIAF. However, SIAF does not allow the recording or control of the Project budget either on an annual or cumulative basis. As a result, information on Project commitments and balances is not available. Moreover, Statements of Expenditures for disbursement purposes need to be manually prepared based on the information exported from SIAF to Microsoft Excel. Given the volume of transactions to be managed, the existing arrangement requires continuous reconciliations, which is not only cumbersome, but causes delays and affects the availability of timely and reliable financial information for disbursement and monitoring purposes.

9. **Recognizing the need to have in place automated tools to support its operation and provide information for different purposes, MINED has several information systems that in the short term will allow it to address its most urgent needs.** One of those tools is the procurement information system, which in addition to information on the procurement process itself, will provide basic contract management information, including commitments and payment amounts as well as starting and closing dates, amendments, and bank guarantees. To ensure the timely and consistent recording of Project data and provide reliable reports, the OM includes (a) responsibilities for the recording of payment information; (b) definition of policies and practices for the recording of dates of payment, and for the exchange rate to be used for those records; (c) procedures for the timely recording of data throughout the payments process, as well as the reconciliation mechanisms to ensure consistency of the information; and (d) the format and content of the reports to be issued from the system which will be used by different technical, administrative, and finance units. Based on those definitions, MINED has to complete any necessary developments in the system up to the issuance of said reports, which will be reviewed by the World Bank before Project implementation begins.

10. ***Project financial reporting.*** **MINED will prepare on a semiannual basis unaudited Interim Financial Reports (IFRs).** These will contain (a) statement of sources and uses of funds (with expenditures classified by Project components and/or subcomponent), reconciling items (for example, advances to Departmental Delegations pending to be documented), and cash balances; and (b) statement of budget execution (with expenditures classified by subcomponent), along with the reconciliation of the segregated account with Project records and with budgetary execution in SIGFA. Project financial reports and annual financial statements will be prepared following the cash basis of accounting. IFRs will be submitted no later than 45 days after the end of each semester. On an annual basis, MINED will prepare Project financial statements, including cumulative figures, for the year and as of the end of the fiscal year (December 31). All documentation for consolidated Statement of Expenditures will be maintained for post review and audit purposes for up to three years after the closing date of the Project, or for 18 months after receipt by the World Bank of an acceptable final financial audit, whichever is later. The format of IFRs, which are directly issued from the SIAF system has been agreed and approved by the Bank.

11. ***Processes and procedures (including internal controls).*** **MINED is obliged to comply with local requirements related to administrative and control systems (550 Law), which are mainly integrated into the operation of SIGFA, as they relate to budget preparation and execution.** While MINED's internal processes and procedures normally provide for an adequate segregation of duties, and clear responsibilities, the nature and volume of transactions, and especially the lack of an automated tool that supports its operational processes through various MINED key areas, results not only in complex and cumbersome procedures with overlaps, but also undermines MINED's ability to properly control and monitor Project implementation. Some of the identified shortcomings include (a) delays in the documentation of transfers made to Departmental Delegations; (b) weaknesses in contract management; (c) delays in the preparation of Project financial reports and financial statements due to high volume of transactions that need to be manually reconciled; and (d) delays in the approval and processing of payments. As Project implementation is fully integrated into MINED's institutional flows, addressing some of these weaknesses in a sustainable way requires a more structural and integrated approach. However, to address some immediate needs, MINED has worked on basic flowcharts of key processes related to payment processing and approval, identifying bottlenecks, and simplifying some approval/requirements, together with the procedures for the recording of certain data in the procurement and financial systems, control of bank guarantees, and other controls for the preparation of financial information. Said procedures are included in the OM, including safeguards procedures based on the environmental and social frameworks. In addition, as part of MINED's strengthening under Component 3, the World Bank will continue discussing a more comprehensive review of all operational arrangements at the macro and micro levels that, supported by an integrated management system, will allow MINED to address identified inefficiencies.

12. ***External financial audit.*** **An external, independent, private audit firm, acceptable to the World Bank, will be contracted by MINED for the entire life of the Project, no later than six months after the Credit effectiveness.** Audit review will be carried out in accordance with International Auditing Standards and will cover the GoN's fiscal year (which coincides with the calendar year). The audited financial statements shall be presented to the World Bank no later than six months after the end of the fiscal period. Terms of reference and a short list will be subject to the World Bank's no-objection. According to the World Bank's policy on access to information, audited financial statements will be made public. Project audited financial statements will include two parts: (a) Project financial statements for Components 1 (subcomponents 1.1.3 and 1.1.4, and subcomponent 1.2), 2 and 3; and (b) budget execution report of the

eligible budget lines (which also considered part of the Project financial statements) under subcomponents 1.1.1 and 1.1.2. Specific audit requirements for Project financial statements are shown in Table 2.1, and are reflected in the Project Operational Manual.

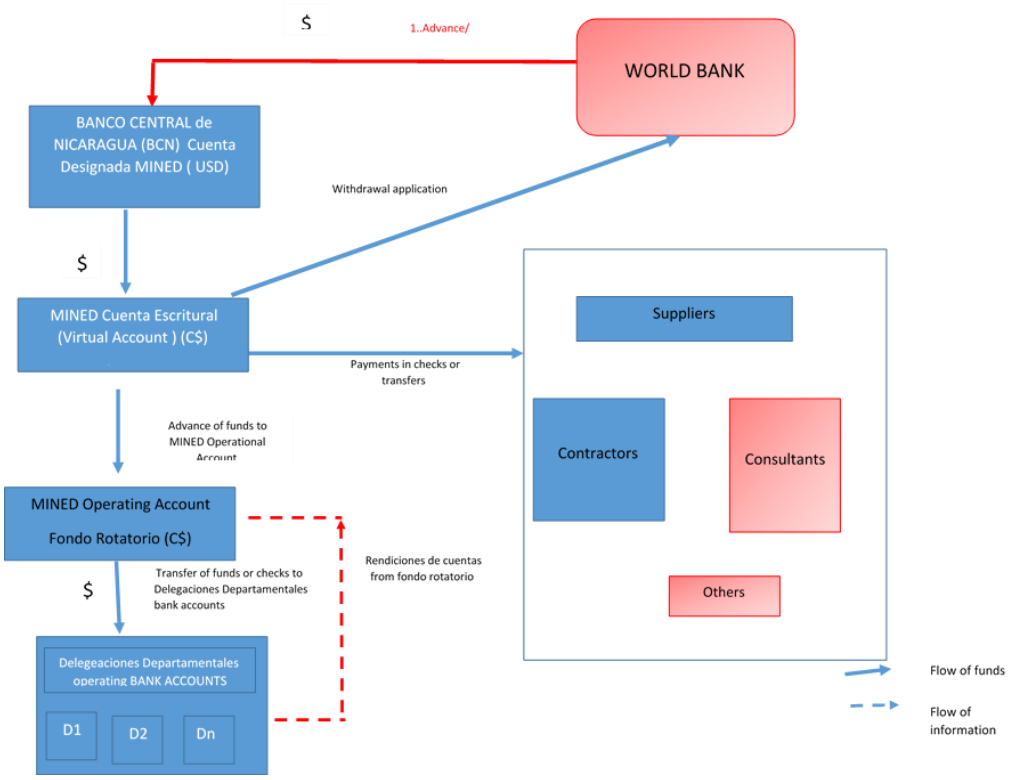
Table 2.1: Required Financial Reports and Corresponding Due Dates

Audit Type	Due Date
Project financial statements	June 30
Statement of Expenditures	June 30
Management Letter	June 30
Budget execution report of eligible budget lines	June 30

13. ***Internal audit.*** **MINED is subject to the control of the Internal Audit Directorate.** The Internal Audit Directorate of MINED will include the review of the Project's financial documentation in its internal audit plan. The internal audit reports will be available to the World Bank during supervision missions.

Flow of Funds and Disbursements

Figure 2.2: Funds Flow Arrangements for the Financing of Activities under Traditional Disbursement Arrangements



14. ***Disbursement arrangements for transaction-based Components (subcomponents 1.1.3, 1.1.4, and 1.2, and Components 2 and 3).*** **The following disbursement methods may be used to withdraw funds from the credit: (a) reimbursement, (b) advance, and (c) direct payment.** Under the advance

method, a Designated Account will be opened in United States dollars in the Central Bank of Nicaragua under the name of the proposed Project. Funds deposited into the Designated Account as advances will follow World Bank disbursement policies and procedures, described in the Financing Agreement and in the Disbursement Letter. Credit amounts will be deposited into a segregated Designated Account and the documentation of expenditures made with advances to the Designated Account will be documented on a quarterly basis, or more frequently, if needed, through Statement of Expenditures (SOEs). The Minimum Value of Applications for Direct Payment and Reimbursement is US$ 500,000 equivalent. The Designated Account (DA) will have a Fixed Ceiling of US$ 4,000,000. Figure 2.2 shows the flow of funds for those Components using traditional disbursement arrangements described above.

15. ***Disbursements from World Bank to MINED.*** **Under the advance method, credit proceeds will be disbursed from the Credit Account to the Designated Account.** Funds deposited into the Designated Account will be transferred to the '*Cuenta Escritural*' in local currency from which payments will be made to contractors, suppliers, and consultants, all managed by MINED central office. Transfers to Departmental Delegations will be made for specific activities, and funds will be deposited into a non-segregated operating account of the selected Departmental Delegation. Upon completion of said activities, each Departmental Delegation has to document the advance received and refund unutilized funds following established procedures, under the control and monitoring performed by the '*Unidad de Seguimiento y Control Financiero*' that is part of the AFGD.

Table 2.2: Budget Lines Associated with EEP

Budget Group	Budget Line	Concept
1. Personnel services	111	Salaries for permanent staff
	114	Employer contributions
	115	Compensation per geographic location
	116	Compensation for years in service
	119	Other additional salary-related compensations
2. Non-personnel services	273	Within-country per diems
3. Materials and supplies	369	Other chemical products
4. Equipment	433	Education and recreational equipment
	437	IT equipment

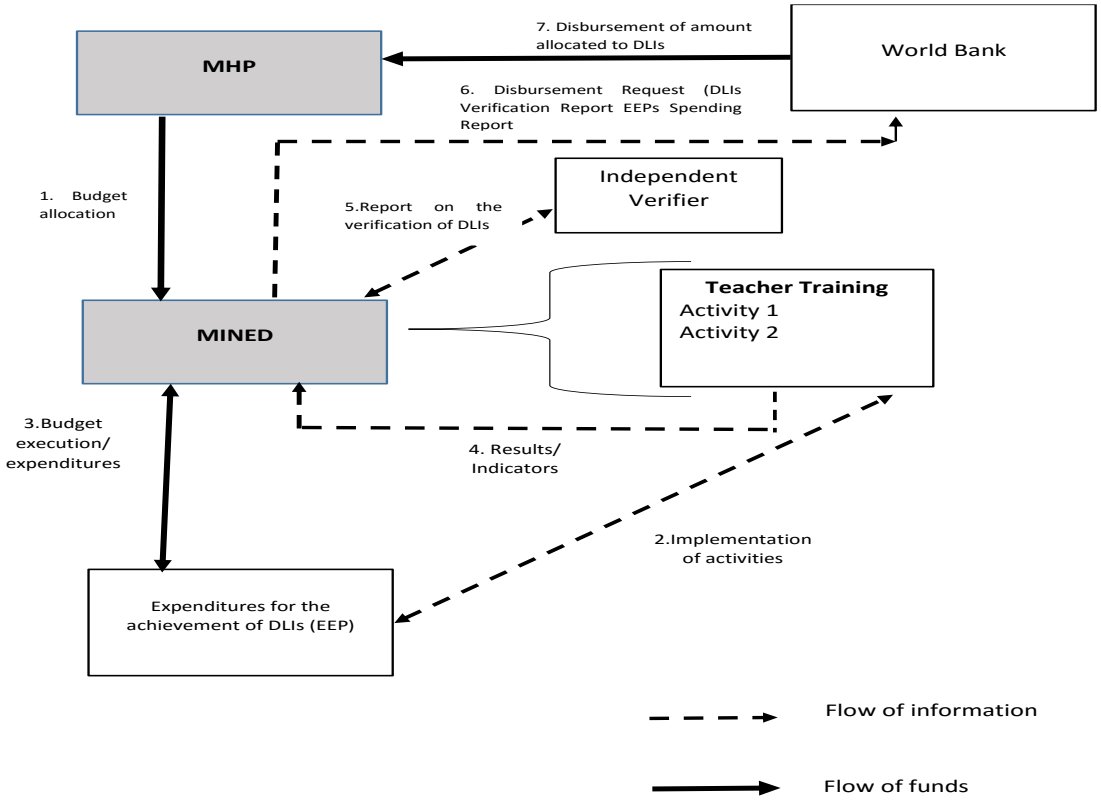
16. ***Disbursement arrangements for DLI-based subcomponents.*** Subcomponents 1.1.1 and 1.1.2 will use DLIs for disbursements. Based on the proposed activities, the World Bank and MINED have defined the budget lines for the proposed EEPs to be financed by these subcomponents. Those expenditures are related to teacher salaries, per diems for teacher training and mentoring activities, and goods, such as printers (including toners), computers and tablets for teacher training and development, which are clearly identified in MINED's budget as indicated in the EEPs (Table 2.2). Following the discussions with the MHCP on the overall arrangements for the use of DLIs, it was agreed that (a) budget and funds needed to implement activities related to the DLIs will be allocated through the annual ordinary budget process followed in Nicaragua; and (b) as DLIs are achieved and verified (as per defined verification protocol) and enough eligible expenditures are incurred, MINED will submit to the World Bank a withdrawal application for reimbursement in the amount correspondent to the allocation of each DLI achieved, together with the EEPs Spending Report showing the expenditures under the eligible budget lines for an amount, at least equal to the amount allocated to the respective DLIs and DLI compliance, as deemed authorized by the World Bank. The DLIs are not time-bound, however, it is expected that MINED will report to the World

Bank on achievement of the DLIs at the end of each recipient's fiscal year.

17. **Retroactive financing.** MINED (once authorized by MHCP) will be able to request retroactive financing for under Parts 1.1.1 and 1.1.2 of the proposed Project for payments made prior to the date of the Financing Agreement but paid on or after January 1, 2017 for an amount up to US$600,000.

18. **The World Bank will disburse the funds allocated to corresponding DLIs into a bank account indicated by the Ministry of Finance and Public Credit, for subsequent transfer to a segregated account opened in the name of MINED.** Funds deposited into such an account will then be recorded and allocated as part of MINED's budget. Based on the definition of the eligible budget lines, MINED has provided a sample budget execution report that will be obtained from SIGFA and will be used as the supporting documentation for disbursement purposes. To mitigate risks related to the lack of funding for the achievement of DLIs, MINED has worked on an estimated annual cash flow for those subcomponents. Such estimation will be reviewed on an annual basis. The flow of funds for those subcomponents under the DLI approach is presented in Figure 2.3.

Figure 2.3: Funds Flow Arrangements for the Financing of Activities under DLI Approach



19. **In the case of partial compliance of scalable DLIs or lack of expenditures to support the withdrawal request, the following will apply:**

(a) If the World Bank has not received evidence of full compliance with the Scalable DLIs, with respect to all disbursements, then the World Bank shall only disburse the amount corresponding to the degree of achievement of at least minimum target defined for respective Scalable DLIs 3, 5, 6, 7, and 8 in accordance

with the procedures defined in Table 5.1 of annex 5 and in the Disbursement Letter.

(b) If the Recipient fails to provide enough eligible expenditures under the EEPs in respect to all disbursements, for a DLI that has been met, (or that has met the minimum target defined for the respective Scalable DLI, as defined in the Verification Protocols), then the undisbursed amount due to lack of eligible expenditures in the correspondent application will be available to be requested by MINED at any time when enough eligible expenditures are presented to the World Bank.

20. The following table specifies the categories of Eligible Expenditures to be financed, the allocations of the amounts of the Financing to each Category, and the percentage of expenditures to be financed for Eligible Expenditures in each Category:

Category	Amount of the Financing Allocated (expressed in USD)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Payments for EEPs under Parts 1.1.1 and 1.1.2 of the Project	7,000,000	100% of the amount of the Credit allocated to each DLI, as set forth in paragraph B.1 (b) of this Section
(2) Goods, works, consulting services (including audits), non-consulting services, Training and Operating Costs under Parts 1.1.3 1.1.4, 1.2, 2 and 3 of the Project	48,000,000	100%
TOTAL AMOUNT	55,000,000	

21. ***FM action plan.*** **An action plan to ensure that adequate FM systems are in place is currently under implementation by the AFGD.** Detailed activities are presented in Table 2.4.

Table 2.3: Action Plan for MINED AFGD

Action	Responsible Entity	Completion Date[34]
1. Define the content and format of the reports to be issued from the procurement information system for financial monitoring purposes.	MINED AFGD	Before implementation begins
2. Complete implementation of the procurement information system, including issuance of agreed reports.	MINED AFGD and IT Unit	Before implementation
3. Contract external audit, based on special TOR and short list	MINED AFGD	Six months after

[34] This column presents the estimated completion date, and is not an indication of legal conditions.

Action	Responsible Entity	Completion Date[34]
satisfactory to the World Bank for the entire implementation period of the Project.		effectiveness
4. Define, design, and implement an integrated FM system capable to register, verify, control, and prepare financial statements and financial reports on the cash basis of accounting acceptable to the World Bank (which replaces SIAF).	MINED AFGD	To be defined based on the conceptual design to be carried out by MINED as part of the institutional strengthening.
5. Provide specific training in FM and disbursements for Project FM staff.	World Bank	Before implementation begins

22. **A World Bank FM Specialist will undertake a supervision mission before credit effectiveness to verify the implementation of the action plan and review all FM arrangements.** After effectiveness, the FM Specialist will review the annual audit report and the financial sections of the semiannual IFRs including a monthly reconciliation of accounts, and perform at least two complete supervision missions per year. Additional supervision missions will be carried out, if necessary.

Procurement

23. **Procurement for the proposed Project will be carried out by MINED, in accordance with World Bank Procurement Regulations for Borrowers under Investment Policy Financing (July 2016) ('Procurement Regulations').** A PPSD, prepared by the GoN, describes how procurement in this operation (for traditional disbursement and for the small contracts under EEPs) will support the PDOs and deliver value for money under a risk-based approach. Procurement for this Project will be implemented based on mandatory procurement prior review thresholds detailed in Annex I of the World Bank's Procurement Regulations. All procurement procedures, including roles and responsibilities of different participating entities and units, are defined within the OM. A summary of PPSD, including recommended procurement approach for higher value contracts, is detailed in Table 2.5.

Table 2.4: Summary of PPSD (recommended procurement approach for higher-value contracts*)

Description	Estimated Cost (US$)	Prior/Post Review	Market Approach	Selection Method
Works				
Rehabilitation, replacement and/or expansion of school infrastructure	400,000 to 4,000,000	Post	National - Open	Request for Bids (post-qualification)
Goods				
Equipment	30,000 to 500,000	Post	National - Open	Request for Bids (post-qualification)
Learning materials	300,000 to	Prior and post	International/National -	Request for Bids

Description	Estimated Cost (US$)	Prior/Post Review	Market Approach	Selection Method
	4,000,000		Open	(post-qualification)
Technical assistant and external audit	50,000 to 250,000	Post	National - Open or direct selection	Quality- and Cost-Based Selection
Technical assistant and Project team	10,000 to 60,000	Post (prior for procurement team)	National - Open or direct selection	Individual Consultant

(*) Procurement packages and World Bank's prior review as defined in procurement plan

24. ***Procurement Plan.*** **The Procurement Plan for the first 18 months of the proposed Project was prepared by the Borrower based on the PPSD and agreed with the World Bank.** In accordance with paragraph 5.9 of the Procurement Regulations, the World Bank's Systematic Tracking and Exchanges in Procurement system will be used to prepare, clear, and update the Procurement Plan and conduct all procurement transactions for the proposed Project. A summary of the PPSD, including recommended procurement approach for higher-value contracts, is presented in Table 2.3. The GoN has already been trained on how to use the Systematic Tracking and Exchanges in Procurement system.

25. ***Civil works.*** The proposed Project will finance the rehabilitation, replacement and/or expansion of approximately 45 primary school facilities.

26. ***Goods.*** The goods to be financed under this Project include learning materials, complementary educational supplies (music players, musical instruments), teacher guides, information technology equipment for preschool and primary schools, school furniture, and office furniture and materials.

27. ***Non-consulting services.*** Printing, transport services, and workshops will be financed by the proposed Project.

28. ***Selection of consulting services.*** Consulting services to be financed under the proposed Project include the design and implementation of a new FM system, implementation and scale-up of MINED's national statistical system, and external auditing.

29. ***World Bank's Standard Procurement Documents.*** Standard Procurement Documents shall be used for all contracts subject to International Competitive Bidding and those contracts as specified in the Procurement Plan tables in the Systematic Tracking and Exchanges in Procurement system.

30. ***Operating costs.*** Operating costs refer to reasonable recurrent expenditures that would not have been incurred by the implementing agency in the absence of the Proposed Project, such as travel (including rental of vehicles and fuel), rent of premises, office supplies, communication costs, bank charges, printing and publications (electronic and/or paper), translation, consumables and other expenditures to be agreed upon between the Recipient and the World Bank.

31. **All procurement procedures are described in detail in the OM, and agreed with the World Bank.** The OM includes non-standard documents expected to be used in the implementation of the proposed Project.

32. **The World Bank carried out a procurement capacity assessment to evaluate the adequacy of procurement arrangements of MINED.** The assessment focused on how the entity was organized to procure using external funds or their own national funds. Basic staffing structure, procurement record system, internal controls, evaluation committees' roles and responsibilities, contract signing, and contract administration were reviewed as part of the assessment.

33. **Even though MINED's procurement team has more than five years of experience and participated in training on the World Bank's new Procurement Regulations (November 2016), additional measures will be put in place to strengthen their capacity and mitigate identified risks.** There are several risks related to MINED's capacity, including poor planning of procurement actions, lack of technical ability to define technical specifications, and poor management and supervision of the works. To address these risks, a number of mitigation measures have been agreed upon with MINED including (i) agreement on the necessary qualifications of procurement staff who will work for the proposed Project, and commitment that these will only be replaced with staff of equivalent qualifications acceptable to the World Bank; (b) strengthened key internal controls (technical specification, warranties, contract management, works supervision) and transparency mechanisms (publication of terms of reference and specifications, testing the market before launching procurement processes); (c) definition of clear roles and responsibilities of participating units in the OM; (d) alignment of all procurement procedures to be used under the proposed Project with the World Bank Procurement Regulations; and (e) inclusion of Special Procurement Provisions in the Procurement Plan.

34. ***Frequency of procurement supervision.*** In addition to prior review supervision to be carried out by the World Bank, the capacity assessment of the implementing agencies recommends annual supervision missions to visit the field to carry out post review of 20 percent of procurement actions.

Environmental and Social (including safeguards)

35. **The Project's primary benefits and social risks were identified following an update of the on-going projects' social assessment, and a consultation process carried out with IP and AD leaders.** The measures to promote opportunities and mitigate impacts for IP and AD communities are outlined in an IPAP for Component 1, an IPAPF for Component 2, and a Temporary Relocation Framework included in the ESMF.

36. **The social assessment, originally prepared in 2012, was updated to provide data on IPs and ADs relative to the education sector and reflect the concerns and preferences generated by the consultation process.** The social assessment provides a sociocultural profile of IPs in Nicaragua and outlines key issues for the education sector as related to infrastructure, curriculum, teaching practices, materials, and so on. The socioeconomic situation and cultural characteristics of IPs in Nicaragua have not significantly changed and the education needs and challenges identified in the assessment are still relevant and applicable. Data are from the most recent census (2005) and national surveys, the 2005 Human Development Report for the Autonomous Regions, and the education system. The 2012 social assessment reflects the issues and proposals generated by six focus groups with 30 participants, 17 interviews, and one validation workshop with 14 participants. The process included leaders of IP and AD communities (garífunas, ramas, twaska, miskitos, sumo-mayangnas, creol, and mestizos) from the Autonomous Caribbean Regions of the North and the South. For this Project, education indicators were updated and findings were complemented with a consultation process that not only included the same groups but also leaders from the Central and North

Pacific region, noting the diverse needs and issues that vary greatly for IPs between the Atlantic and Pacific, Central and Northern parts of the country.

37. **Component 1 of the proposed Project will be implemented nationwide and needs to take appropriate measures in line with the IP's and AD's diverse characteristics and levels of autonomy and governance in Project intervention areas.** For this Component, an IPAP was prepared in consultation with IP and ADs in the three regions, including a total of 105 participants, of which 60 percent were women. The first workshop took place in Bilwi (Autonomous Caribbean Region of the North) on January 20, 2017, with 41 participants; the second workshop was in Bluefields (Autonomous Caribbean Region of the South) on January 23, 2017, with 39 participants; and the third workshop in Masaya on January 24, 2017, with 25 participants. Consultations included Presidents of governments of indigenous territories, teachers, school principals, Regional Government Counsels, Directors of the regional government, and other key indigenous ADs and education stakeholders.

38. **The primary issues highlighted in the regional workshops, and reflected, to the extent feasible, in the IPAP include the following:**

- The teacher training program and educational materials should be focused on building capacity to offer bilingual education and strengthen cultural identity.
- The intercultural bilingual curriculum, textbooks, and teaching practices should be rooted in IP and AD local practices and realities (coherence between images and content and use of local languages).
- Teacher training programs should be contextualized to reflect IP and AD surroundings and realities.
- Teacher training should include the use of technology, information and communication tools.
- Sufficient resources should be allocated to the distribution of materials to IP and AD schools, given that there is a significant gap in access to materials for IP and AD schools related to times and costs, so as to ensure adequate delivery to the most remote areas.
- IP and AD teachers need to be trained on new pedagogical models and how to best utilize educational materials.
- IP and AD teachers need to be involved in the development and review of intercultural and bilingual curriculum, educational texts, and materials.
- Information mechanisms should be improved among different areas of the Autonomous Regions Educational System.
- Actions with national universities to develop together with IP and AD lines of research on their history, language, culture, and so on should be articulated.
- Coordination between MINED and IP and AD leaders and authorities to support the integration of ancestral values, culture, customs, and language within educational processes should be strengthened.
- The revitalization of languages in risk of extinction should be supported.
- Collaboration agreements with other GoN institutions (military, police, regional governments, and so on) to support the distribution of learning materials to remote areas should be developed.
- Teachers' certifications and training should include research on IP and ADs' languages, history, and culture and build capacity to speak native languages.

39. **The draft IPAP was submitted for validation on January 27, 2017, with a group of 22 IP and AD representatives who had participated in the regional consultations.** Additional recommendations were made at the national workshop, and participants signed an act expressing their broad support for the proposed Project and IPAP. Within this act, MINED committed to distribute the final version of both the IPAP and the IPAPF, taking into account those additional measures deemed feasible, to all invitees. The act also committed the participants to distribute information about the proposed Project and the social safeguard instruments to their constituent territories and communities. The final version of the IPAP was published both on MINED's and the World Bank's websites on February 10, 2017.

40. **Component 2 will focus on improving infrastructure in targeted areas, some of which include IP and AD communities and schools.** Civil works include the rehabilitation and/or expansion of schools and will make use of the 119 pre-investment studies financed under the on-going project. However, the proposed Project will only finance infrastructure investments in 45 schools that will be selected based on pre-established criteria. It is estimated that approximately 10 percent of these schools will be located in IP or AD communities and/or territories. The World Bank will work with the GoN when reviewing potential schools to promote inclusion of IP and AD schools. One criterion, for example, under discussion with MINED was whether or not schools to be improved need to replace existing education centers that service all levels (pre-school, primary, and secondary). It was decided that this criterion will have unintended exclusion consequences as most IP and AD communities do not have access to an existing secondary school. Given this, the criterion was altered to ensure that demand exists for all levels, but not that schools of all levels need to exist.

41. **Given that the location of beneficiary schools to be supported is still unknown, an IPAPF was prepared for Component 2.** The IPAPF identifies potential social risks, impacts, and opportunities, and establishes the objectives, principles, and processes for engaging with the pertinent IP and AD authorities and stakeholders so that (a) the final selection of beneficiary schools is carried out in consultation with the regional and territorial authorities; (b) a sociocultural assessment is carried out for each subproject where relevant stakeholders and potential impacts are identified, and the baseline situation of the beneficiary population in relation to educational services is established; (c) a process of free, prior, and informed consultation is carried out; (d) adaptations in the subproject design and operational delivery mechanisms are adopted, as necessary, through an IPAP to respond to community and stakeholder concerns and preferences; and (e) broad community support is attained for the subproject, and when necessary, the IPAP. The IPAPF was prepared with the participation of IP and AD representatives at the national workshop on January 27, 2017. The final version of the IPAPF was published both on MINED's and the World Bank's websites on February 10, 2017.

42. **The Involuntary Resettlement Policy, OP/BP 4.12, is not triggered as the proposed Project will not require involuntary taking of lands that could impact peoples' homes, access to assets, or livelihoods.** Either all lands where Project investments will take place are owned fully by MINED, or in the cases of the autonomous regions or collectively owned lands, MINED has usage rights to these lands through agreements with the regional and local authorities. For infrastructure investments, land ownership or rights of MINED is a prerequisite for Project financing. This approach varies from the on-going projects, where OP/BP 4.12 was triggered to cover the temporary relocation of students. However, the assessment for the proposed Project concluded that the impacts caused by the temporary relocation will not induce impacts considered as 'involuntary resettlement' under the World Bank's policy. The

existing Temporary Relocation Protocol includes provisions to ensure that school periods are not interrupted and that temporary spaces are provided on a voluntary basis, and are accessible, safe, and meet the basic needs for a learning environment. This protocol has been integrated into the Project's EMSF.

43. **The primary social risk outside the scope of the World Bank's social safeguards is the capacity of MINED to invest in school infrastructure in the 119 schools where pre-investment studies were carried out.** To mitigate this risk, MINED is seeking complementary funding to carry out additional infrastructure improvements. At the same time, as part of the Project's social management strategy, a proactive outreach and communication approach will be used to inform those schools that are not selected about the investment selection criteria, and prospects and timelines for supporting their schools with alternative financing.

44. **The proposed Project triggers the policy on Environmental Assessment OP/BP 4.01 and is rated as Category B.** The proposed Project will finance construction activities that may potentially generate negative environmental impacts, although these are not expected to be significant and measures to prevent, mitigate, and compensate potential negative impacts are relatively standard and easy to implement. The main environmental and safety considerations include measures related to management of solid waste, minimization of noise and dust impacts, management of wastewater, control of erosion and stability of slopes, and affectation of soil in working areas. MINED has developed a manual and procedures to address environmental and social concerns around infrastructure investments and has engaged with local partners (i.e. *Universidad de las Regiones Autónomas de la Costa Caribe Nicaragüense*) to develop intercultural bilingual curriculum. The ESMF includes mitigation and environmental and social monitoring measures to be applied before and during construction of education infrastructure.

45. **The General Directorate of School Infrastructure includes an environmental and social safeguards team of five people with strong capacity to undertake community consultations and manage social and environmental risks.** Subprojects approved for financing under the on-going projects have complied with eligibility and preparation criteria, including environmental and social assessments and other safeguards instruments required by the OM and in line with World Bank's norms and safeguards policies.

46. **For the proposed Project, a social safeguards specialist will be hired to coordinate the overall implementation of the IPAP, IPAPF, and social aspects of the ESMF.** The Social Safeguard Coordinator will be part of the Project Support Team and will coordinate closely with the General Directorate for the Education System for the Autonomous Caribbean Regions of the North and the South (*Dirección de Enlace con el Sistema Educativo Autonomico Regional)*. The Coordinator will be supported by the social safeguards specialists from the infrastructure unit, a team that has demonstrated a strong understanding of the social risk issues and experience, and has expertise to address these risks. The infrastructure social safeguards team will also be tasked with the follow-up communication with the communities where pre-investment studies were carried out but where investments are not foreseen under the proposed Project. The coordinating role will also be supported by MINED units working on curriculum development, teacher training programs, and materials preparation. The terms of reference for the Social Safeguards Coordinator will be prepared by MINED and the World Bank will provide its no objection. The World Bank will provide the MINED social safeguards team, and other actors, as deemed necessary, with social safeguards training and support in the implementation of the IPAP and IPAPF, as deemed necessary.

47. **Gender norms, especially in rural areas, and the lack of socioemotional skills, greatly shape Nicaraguans' schooling decisions as young adults**.[35] The gender mismatch across educational indicators and labor market outcomes serves as evidence of the influence of these norms. In Nicaragua, school enrollment does not differ significantly across genders.[36] If anything, educational outcomes tend to benefit more girls over boys in recent cohorts.[37] Despite comparable dropout rates of young men and women, labor market implications of dropouts for women translate into lower female labor force participation as compared to men. In 2014, only half of Nicaraguan women aged 15–64 were in the labor market, the lowest proportion after Honduras (45 percent) and Mexico (48 percent) and significantly lower than LAC's average (55 percent). In addition, in 2014, women's unemployment was 6.7 percent higher than for men.[38] The reason for this inconsistency is likely driven by the lack of socioemotional skills, as well as the reasons driving the schooling decisions by young Nicaraguans, which vary significantly by gender. According to the 2014 Nicaragua Household Survey, boys between the ages of 13 and 18 report dropping out to conduct farm work (46 percent), due to a lack of interest (25 percent), or financial constraints (11 percent). Girls, on the other hand, are more likely to refer to the importance of leading household work (26 percent), a lack of interest (18 percent), or pregnancy and/or caring for children (12 percent). These patterns are very consistent with a recent qualitative study[39] suggesting that adolescents' aspirations and expectations about the future and their transitions toward adulthood are quite different: young men opt more commonly for economic independence, while for young women, such transitions are characterized by forming their own family (through a union and possibly becoming a mother).[40] Furthermore, prevalent social norms contribute to Nicaragua's high rates of child marriage and teenage pregnancy.[41]

48. **The proposed Project will support several gender-sensitive interventions mainly through the Education Community Councils,[42] namely gender-sensitive classroom practices and school infrastructure needs, and strengthening of student socioemotional skills.** As highlighted previously, the gender sensitization of teachers and strengthening of the socioemotional skills of students, beginning at an early age, are promising approaches to reducing school dropout and promoting smoother student trajectories in basic education. In addition to the important role of gender norms and life skills, evidence highlights that travel distance to school and the state of school water and sanitation infrastructure matter,

[35] Socioemotional skills are defined as beliefs, personality traits, life and behavioral skills, openness to experience, conscientiousness, extraversion, agreeableness, emotional stability, self-regulation, perseverance, decision-making, and interpersonal skills.

[36] World Bank 2016.

[37] For example, as of 2014, while the overage rate for girls was 59 percent, it was around 67 percent among boys. Furthermore, the secondary completion rate was 45.9 percent for girls, and only around 32 percent for boys (World Bank 2016).

[38] Nicaragua Systematic Country Diagnostic (World Bank, forthcoming).

[39] Muller, Miriam. Forthcoming. *Girls' Agency and Decision-Making around Teenage Motherhood: A Qualitative Study in Nicaragua*. Washington, DC: World Bank Group.

[40] Several authors show that attitudes and expectations about the future can influence the probability of teenage pregnancy (Plotnick 1992, 1993, 2007; Azevedo et al. 2013; Cater and Coleman 2006; Perez Then et al. 2011).

[41] Nicaragua has the 17th highest prevalence of child marriage (married before the age of 18) in the world, at 41 percent. (See: Global Partnership to End Marriage. 2017. *Child Marriage in Latin America and the Caribbean*. http://www.girlsnotbrides.org/wp-content/uploads/2017/01/Child-marriage-in-LAC-01.2017.pdf). It also has the second-highest adolescent fertility rate in LAC, at 89.6 births per 1,000 woman ages 15–19. (See Muller, forthcoming).

[42] The GoN implements a gender approach based on the complementarities between men and women from a human rights and alliance-, consensus- and dialogue-based coexistence perspective.

especially for girls' participation.[43] Under Component 1, the proposed Project will support (a) the development and implementation of a country-adapted module for socioemotional skills for students that is strongly informed by gender-sensitive topics, including teenage pregnancy; and (b) measuring gender-biases in teacher practices through classroom observation and student assessments. The World Bank will also provide technical assistance to help MINED revise their training materials to make them gender informed. Under Component 2, school construction, improvement, and expansion will take into account standards recognizing specific requirements to respond to gender differences. Given the importance of availability of sanitation facilities for girls' dignity and comfort, particularly during menstruation, the proposed Project will also support the improvement and expansion of those in schools to ultimately support the increase in the share of girls in schools among lower secondary students.[44]

49. **The above interventions will contribute to the gender dimension by laying foundations at the teacher level to influence deeply entrenched cultural norms and reduce gender inequality, empowering equally boys and girls to better understand the value of being and remaining engaged in school, as well as in their homes and communities.** Together, the socioemotional skills interventions—combined with the strengthening of the teachers' competencies more generally—are expected to foster greater student interest and engagement from the early grades, helping prevent future student dropouts. Gender-sensitive school infrastructure will improve girls' comfort in attending school regularly, likely also contributing to a lower likelihood of dropping out due to a lack of engagement.

50. **The proposed Project will also include mechanisms to incorporate beneficiary feedback.** It will do so at two levels, by: (a) ensuring that information on student perception is collected as part of the national student assessments; and (b) measuring teacher perceptions of the quality and relevance of the training and/or mentoring processes. At the same time, a grievance redress mechanism will be designed to ensure accessible and cultural relevant channels are established for concerned and beneficiary communities to solicit information or present grievances. These mechanisms should ensure that information and resolutions are provided in timely ways that respect any privacy concerns of the solicitors.

Monitoring and Evaluation

51. **The Project Support Team will be responsible for tracking progress related to Project outcomes and results on a day-to-day basis.** MINED´s General Directorate of Educational Planning and Programming will be the main counterpart responsible for collecting administrative data (including from other directorates involved in implementation), monitoring results, and assessing progress toward the PDO. Directorates responsible for certain Project activities will also provide the needed information related to the results of those activities, while carrying out their role in quality assurance by providing technical oversight. The proposed Project will also produce relevant information to facilitate tracking progress on the 2017–2021 Education Sector Strategy. In particular, it will support the collection, analysis, and dissemination of national and international student assessments to measure learning outcomes at the

[43] See: Almeida, R., and H. Oosterbeek. Forthcoming. *Access to Water and Sanitation Services in Panamanian Schools and Student Outcomes*, which highlights that TERCE data indicate there are strong associations between water and sanitation services and student attendance and outcomes, particularly for girls, students in rural areas, and students from low socioeconomic status families.

[44] This activity will be coordinated with the funding available under the Umbrella Facility for Gender Equality-financed Tackling Teenage Pregnancy by Enhancing Youth Socioeconomic Opportunities Trust Fund.

national, departmental, and municipal levels, as well as the collection of information on teaching practices through a local classroom observation instrument. Furthermore, the proposed Project will carry out continuous monitoring and evaluation of activities during implementation. In particular, an impact study will be carried out to assess the effectiveness of teacher training programs and the TMP for primary school teachers, and annual "process" school-level report will be carried out for each of the 45 targeted schools under Component 2, including key education indicators such as enrollment, graduation and retention rated by level.

Role of Partners

52. **The Proposed Project is part of a broader package of technical and financial support from other donors involved in the education sector.** The monitoring of progress on both the 2017–2021 Education Sector Strategy and the proposed Project will be carried out in coordination with the active Local Education Donor Group. Members include the European Union (TVET), the Japanese International Cooperation Agency (school infrastructure), Luxembourg's Development Cooperation and the Spanish Agency for Development Cooperation (TVET), and the United Nations Children's Fund (early childhood development), among others. In addition, the European Union plans to support the implementation of the strategy and Nicaragua will be eligible for a Global Partnership for Education Grant (up to US$4.5 million) once the strategy is officially launched and endorsed by the donor group. The World Bank would be the designated 'trustee' for implementation of such a grant.

ANNEX 3: IMPLEMENTATION SUPPORT PLAN

COUNTRY: Nicaragua
Alliance for Education Quality Project

Strategy and Approach for Implementation Support

1. **This Implementation Support Plan has been developed based on lessons learned, the actual Project content, and its risk profile, aiming at making the implementation support to the GoN flexible and efficient.** The plan places a strong emphasis on a close support and communication between the World Bank and MINED. Since 2012, through the supervision of recent and ongoing projects, the World Bank has developed strong communication channels, a close relationship, and trust with teams at MINED, both at the central and subnational levels.

Implementation Support Plan and Resource Requirements

2. The World Bank will provide strong implementation support to the Project's Components, as well as guidance regarding technical, fiduciary, and social issues. The World Bank's support will be organized in (a) general supervision, (b) fiduciary and safeguards management support, (c) technical support in key areas.

(a) **General supervision.** Project supervision will be carried out by the TTLs. The TTL or at least one Co-TTL should be based in the country office, to ensure close Project supervision. The TTL or Co-TTLs will ensure that Project implementation is consistent with the World Bank requirements and as specified in the legal documents. It is expected that a fluid information exchange will be maintained with MINED senior officials, exploring trust and good communication.

(b) **Fiduciary management support.** Supervision of FM arrangements and procurement will be carried out during the semiannual missions. The support will also be provided on an on-demand basis, to respond to Project needs. In addition, training will be provided by the World Bank's FM and procurement specialist during Project implementation, as needed. This will allow building procurement and FM capacity in MINED, particularly regarding the World Bank procedures and instruments, including DLIs which are new to the country.

(c) **Social and environmental safeguards.** Supervision of the ESMF, the IPAP and the IPAPF will be carried out and supervised by the World Bank Social and Environmental Specialist assigned to the proposed Project, during semiannual supervision missions and also on an on-demand basis. The supervision will require field visits.

(d) **Technical support.** The World Bank will provide technical support based on World Bank staff expertise and include: (a) one or two international experts on teacher policies, mainly for the activities under Component 1; (b) an external school infrastructure expert, to provide support in the preparation and implementation of an action plan to execute school infrastructure works under Component 2; and (c) a monitoring and information systems expert to support the GoN in developing all the activities under Component 3. Experts under (a) will assist the TTLs to provide comments to MINED´s strategies and plans, as well as TOR and/or intermediate or final reports. In particular, they will provide assistance to ensure that the verification protocols for the DLIs are met, and, together with the World Bank technical

staff, the expert will also support select quality assurance of the selected studies, including the impact study. The expert under (b) will carry out the quality assurance of key products, as pre investment studies and the supervision of school infrastructure works.

Time	Focus	Skills Needed	Resource Estimate (US$)	Partner Role
First 12 months	Monitoring of implementation	TTL/Co-TTL	100,000	n.a
	Supervision and training in fiduciary and safeguard matters	Procurement, FM, and two Safeguards Specialists		n.a.
	Development of teacher practices observation instruments and training plan preparation	Teacher Training Specialist	25,000	n.a.
	Selection of schools to be rehabilitated and supervision of technical documents	Infrastructure Specialist	20,000	n.a.
	Quality assurance in Component 3 - education monitoring and information systems	Education Monitoring and Information Systems Specialist	5,000	n.a.
12–48 months	Monitoring of implementation	TTL/Co-TTL	400,000	n.a.
	Supervision and training in fiduciary and safeguard matters	Procurement, FM, and two Safeguards Specialists		n.a.
	Technical support to teacher training programs	Teacher Training Specialist	50,000	n.a.
	Supervision of works and quality assurance	Infrastructure Specialist	40,000	n.a.

Skills Mix Required

Skills Needed	Number of Staff Weeks (Per Year)	Number of Trips (Per Year)
TTL/Co-TTLs	30	3–4
Procurement Specialist	12	2
FM Specialist	10	2
Environmental Safeguard Specialists	4	1
Social Safeguard Specialist	8	2
Economist	10	2
Analyst	8	2
Teacher Training Specialist	5	2
Infrastructure Specialist	10	2
Education Monitoring and Information Systems Specialist	4	1

ANNEX 4: ECONOMIC ANALYSIS

COUNTRY : Nicaragua
Alliance for Education Quality Project

1. **The proposed Project aims to improve teaching quality, increase coverage to rural areas, enhance learning environments nationwide, and strengthen education institutions in Nicaragua**. It will do so through three Components. The first Component will improve the teaching practices in preschool, primary, and secondary education to address Nicaragua's current situation of low learning outcomes and high overage rate. The second Component targets the improvement of physical learning conditions in targeted areas, by investing in the construction of new classrooms and the rehabilitation of existing schools, allowing access to more education and higher quality learning. Finally, the third Component aims to strengthen the basic education subsystem's planning and management capacity, by supporting the development of a new planning and management system using increased automation of core management subsystems, including the national statistics, infrastructure management, and fiduciary subsystems.

Part I: What Is the Project's Development Impact?

2. **Human capital theory explains that more and better education can lead to an increase in learning, which translates into higher labor productivity, is observed in higher wages, and can ultimately lead to long-term economic growth.** A vast body of evidence shows that investments in schooling generate positive and consistent economic returns (Card 1999; Montenegro and Patrinos 2014), and that quality education is a key factor in a country's economic growth (Hanushek and Woessmann 2008, 2013, 2016). At a macroeconomic level, Hanushek and Woessmann show a direct link to education quality, measured by cognitive skills and economic growth, and present evidence that contrasts the much higher test scores of East Asian countries compared to those in LAC with the much larger economic growth seen over the last half a century in the former than the latter group. The proposed Project will also raise the country's endowment of human capital and because of its focus on targeted areas, will have positive impacts on poverty rates and the reduction of educational inequality, a key driver of income inequality. Furthermore, there are positive externalities associated with the proposed Project: more education also leads people to make better decisions about health, marriage, and parenting, as well as reduce their engagement in crime and other risky behavior and increase their rates of civic participation (Dee 2004; Lochner 2011; Oreopoulos and Salvanes 2011).

3. **The proposed Project has a strong emphasis on the improvement of education quality in preschool, primary, and lower secondary schools through the strengthening of teacher skills and teaching practices.** A vast body of literature underlines the central role that teachers have in improving learning and the importance of the early years of education (Araujo et al. 2016; Bruns and Luque 2015; Chetty, Friedman, and Rockoff 2014a; Rivkin, Hanushek, and Cain 2005; Kane and Staiger 2008). In fact, Chetty, Friedman, and Rockoff (2014b) studied the long-term effects of teachers on value added and student outcomes in adulthood and found that teachers who have an impact on the learning of their students also have an impact on important long-term outcomes, such as college attendance, earnings, and the probability of having children as teenagers. A key approach to improving teaching quality is to develop and strengthen the skills of the existing teacher workforce (Kraft, Blazar, and Hogan 2016;

Popova, Evans, and Arancibia 2016; Yoon et al. 2007). The aim of Component 1 is precisely to increase teaching quality in this way. It will offer two in-service trainings targeted to community preschool teachers and primary school teachers and a TMP based on a newly developed classroom observation tool. To complement these teacher training programs, it will also provide materials and training for their use in the classroom. In addition to this, Component 1 will also support MINED's capacity to design, implement, and study teacher training programs and increase its ability to collect student achievement data and use it as inputs for policymaking. These teacher training programs are expected to have an impact on student achievement of 0.15 to 0.18 standard deviations for every 1 standard deviation increase in instructional quality. From Chetty, Friedman, and Rockoff (2014a, 2014b), a 1 standard deviation improvement in teacher value added is associated with a 0.12 standard deviation change in achievement and a 1 percent increase in earnings at age 28. If the ratio of gains between student achievement and earnings in instructional quality is assumed to be the same as the one observed for value added, then a 1 standard deviation change in instructional quality has an effect of 1.5 on earnings. Hanushek (2011) presents several estimates of the impacts that increases in student achievement have on earnings from a variety of academic papers. Estimates for the proposed Project, although similar to those in Hanushek, are more moderate.

4. **To address supply-side challenges, Component 2 focuses on the improvement of physical learning conditions in 45 multi-grade schools selected based on their poverty levels and educational outcomes.** The rehabilitation, refurbishment, and expansion of school infrastructure will facilitate access to education for 15,300 students per year. Rural areas will be targeted in particular, given that they face the highest overage and dropout rates in the country, and many of the schools being rehabilitated are one of a handful or the only schooling option in that community. Montenegro and Patrinos (2014) shows that each additional year of education increases wages by 9.2 percent for LAC economies. In that respect, by facilitating additional years of education, Component 2 of the proposed Project will have benefits on student productivity as measured by increased wages after they enter the labor market (Card 1999). Furthermore, these benefits will be complemented by an increase in quality of education that result from the enhanced learning environments provided by the infrastructure investments (Behrman, Ross, and Sabot 2008; Glewwe et al. 2013; Otter and Villalobos Barria 2009). In other words, Component 2 will benefit students by ensuring additional years of education, increasing completion rates, and improving quality of education. The analysis estimates a combined 9.8 percent wage increase per additional year of education for beneficiary students. Results are used from Behrman, Ross, and Sabot (2008) for the enhanced quality of schooling gains; Chetty, Friedman, and Rockoff (2014b) to relate them to changes in earnings; and the labor market returns to additional years of education by Montenegro and Patrinos (2014).

5. **Component 3 will strengthen planning and management capacity in the basic education subsystem, including through the automation of many core management subsystems, such as the national statistics, infrastructure management, and fiduciary subsystems.** The institutional measures will improve long-term cost and time efficiency of the education system. There are many beneficiaries of this Component, including administrators at different levels of the education system, who will benefit from training and technical assistance to enhance their planning and management skills and performance. Additionally, policy makers will have readily available data, streamlined systems, and trained teams, which will enable them to make better informed decisions. The outcomes of this Component will be a more efficient system coupled with better implementation of policies, programs, and practices all the way to the community, school, and classroom levels. Notwithstanding the strong arguments to enhance the

institutional capacity of the education system, the benefits from the improvements resulting from this Component are difficult to quantify and are not explicitly estimated in this analysis.

6. **This economic analysis estimates the cost-benefit ratio (of monetary benefits deriving from the increase in teaching quality and additional years of education expected from the proposed Project) to be 8.18 with an internal rate of return of 12.24 percent.** There are important individual and social gains from investing in education, nonetheless, many of them cannot be captured in this analysis because data are not available. For our analysis, we focus on Components 1 and 2, which have tangible benefits observed in the form of labor productivity and wages after the beneficiaries enter the labor market. Table 3.1 shows the estimated benefits from the proposed Project, disaggregated by Component. Column 1 has the quantifiable benefits we estimate discounted at the rate of 8 percent, and reflects the projected wage increase that results from higher education quality. Column 2 shows the committed costs of the proposed Project discounted at a rate of 8 percent and captures the expected returns of the additional years of education and higher quality from the infrastructure investment. Lastly, Column 3 has the cost- benefit ratio, and as can be observed, the ratios for each Component are between 7.5 and 9.5 with an overall ratio of 8.18 for the proposed Project. The analysis was performed under the following assumptions: (a) a 20 percent teacher training attrition rate, (b) between four and seven years of impact for the proposed Project and consequently a modest number of beneficiaries, (c) a 20 to 40 percent of the total impact estimated by the literature. These assumptions are considered conservative compared to the estimations from the literature. Furthermore, similar to most education projects, the returns to the investments made are observed in the long term and are not tangible in the short run. Nonetheless, the estimated internal rate of return of 12.24 makes the proposed Project an attractive investment.

Table 3.1: Estimated Costs and Benefits

	Column 1	Column 2	Column 3
	Benefits (US$)	**Costs (US$)**	**Benefit/Cost Ratio**
Component 1	167,799,449	18,372,941	9.13
Component 2	203,363,497	27,000,000	7.53
Components 1 + 2	**371,162,946**	**45,372,941**	**8.18**

Part II: Sensitivity Analysis

7. **The analysis considers several different scenarios, where we relax our main assumptions stated earlier and present a range of estimates for the proposed Project and the Components individually.** On the main analysis, we discount the benefits at a rate of 8 percent and obtain an overall cost-benefit ratio of 8.18. To avoid overestimation of the impacts from the proposed Project, in the sensitivity analysis, we test and relax our assumptions in various scenarios. Specifically, we increase attrition rates for teacher trainings, decrease number of beneficiaries, and decrease the estimated impact from literature to lower the expected impact of the proposed Project. In addition, we test our scenarios by also increasing the discount rate at which we estimated the benefits from 8 percent to 10 percent and 12 percent. While the results are naturally more modest in all scenarios, the cost-benefit ratios are still above 1. Figure 3.1 shows the scenarios where we include reduced expected overall Project benefits. These scenarios capture the reduction of all main parameters of our analysis at three discount rates. The high impact scenarios attribute to the Project the full benefits according to the estimates based on the existing literature. For

instance, in these scenarios, we used the 9.2 percent wage increase assessed by Montenegro and Patrinos (2014) for each additional year and 2.7 percent increase on wages resulting from a 1 standard deviation change on instructional quality based on estimations of Araujo et al. (2016) and Chetty, Friedman, and Rockoff (2014b), and we assume an average of ten years of impact from Project interventions. By comparison, the medium impact scenarios assumed a more modest impact from that estimated in the literature (40 percent of the impact for each variable), an increased teacher attrition rate, and an average of six years of impact from Project interventions. Lastly, in the low impact scenarios, we reduced all of our parameters even further and assumed a 20 percent impact of the estimated variables with an average impact of four years for each Component. The yellow dotted line reflects the 1:1 cost-benefit ratio to show graphically that all our estimates, even with low-impact scenarios, are above the 1:1 ratio.

Figure 3.1: Sensitivity Analysis - Cost-Benefit Ratios

Note: HI = high impact; MI = medium impact; LI = low impact.

Part III: Are Public Sector Provisions or Financing the Appropriate Vehicle?

8. **Public financing is justified on both equity and efficiency grounds.** First, private returns to increased educational attainment are large, yet imperfect information, credit constraints, or poorly functioning credit markets (to finance individual education investments) tend to make parents underinvest in their own schooling. As the impacts of additional schooling have strong positive externalities well beyond the accrued benefits to the individual, by making individuals more engaged and responsible citizens and increasing the overall level of productivity and growth in the economy, public investments and subsidies are justified. These public investments encourage individuals to invest in their own schooling, leading to solid private and broad public returns and increased efficiency. Second, we know from the Social Sector Expenditure and Institutional Review (World Bank 2016) that 94 percent of rural education is public, and most Project activities are also designed to particularly benefit disadvantaged groups, including but not limited to the poorest, those in rural areas, and those coming from ethnic and racial minorities. Public investments in these activities are justified on equity grounds.

Part IV: Fiscal Sustainability

9. **The fiscal sustainability analysis estimated that the impact of investing on the proposed Project will not result in a burden to the GoN's fiscal accounts nor MINED's spending.** The analysis is performed under the assumptions that Nicaragua's GDP and education spending grow at the average rate of the last ten years and uses these figures to project future spending throughout the life of the proposed Project. Naturally, the returns of investing in public basic education are not in the short term and therefore the expected quantifiable benefits to society will not be captured during the life of the proposed Project. The fiscal sustainability analysis then, charges the cumulative cost of the proposed Project to education spending for the five years of the proposed Project and estimates the weight in terms of GDP, as shown in columns 1 through 5 in Table 3.2. In the top part of the Table, in the scenario without the proposed Project, education spending projections are presented in US$ millions and as a percent of GDP. If we assume that MINED does not include the proposed Project in their budget, then it would represent an additional cost and not a reallocation of resources, shown by the second scenario. In other words, the difference between the two scenarios is the existence of the proposed Project and therefore, the additional cost that the proposed Project would imply to education spending, in terms of percent of GDP. The estimated cost of Project activities represents on average 1.93 percent (1.1 to 2.45 depending on the year of Project) of the total education budget over the life of the Project. This small percent will help make the Project fiscally sustainable, as MINED will be able to continue Project activities once the Project closes. Moreover, from the first year of the proposed Project, MINED will be paying for some complementary activities to the Components of the Project out of its regular budget.

10. Additionally, column 6 in the table below shows the estimated recurrent yearly costs starting in 2022 after the completion of the proposed Project, which include wage increases after the completion of the teacher training, for both preschool and primary school teachers, and maintenance costs for the new infrastructure. These recurrent costs are estimated to be around 0.43 percent of education spending. Finally, maintenance costs of the new school infrastructure should remain low as the MINED has recently rolled out a new project in which communities and parents are more involved in the maintenance of the school as a way to ensure sustainability and increase community participation and efficiency in decision-making.

Table 3.2: Education Spending Projections

	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
	2017 (Base year)	2018 (Year 1)	2019 (Year 2)	2020 (Year 3)	2021 (Year 4)	2022 onwards
GDP, US$, millions	13,653	14,139	14,652	15,277	15,943	16,618
Scenario without the project						
Education Spending, US$, millions	528.3	548.5	568.3	587.5	611.8	640.6
Education Spending, % of GDP	3.87%	3.88%	3.88%	3.85%	3.84%	3.85%
GDP growth, %	3.71%	3.56%	3.63%	4.27%	4.36%	4.23%
Scenario with the project						
Project cost by year	6.88	13.75	13.75	13.75	6.88	2.79
Cumulative cost	6.88	20.63	34.38	48.13	55.00	57.79
Education Spending, US$, millions	535.1	562.2	582.1	601.2	618.7	643.4
Education Spending, % of GDP	0.039	0.040	0.040	0.039	0.039	0.039
Project cost on MINED's budget, %	1.28%	2.45%	2.36%	2.29%	1.11%	0.43%

Part V: Value Added of World Bank's Support

11. **The World Bank's technical inputs and role as managing entity will provide a high value added in four ways:**

(a) First, the World Bank will rely on its extensive experience with education projects in LAC in supporting curriculum development, improving directors and teacher training programs and development efforts, and strengthening monitoring and evaluation institutional capacity building.

(b) Second, because of the experience with the current portfolio, the World Bank has a deep knowledge of the institutional and sector challenges as well as relevant lessons learned that lead to a better and smarter technical and institutional design.

(c) Third, the World Bank will be relying on a knowledge program including diagnostic assessments, case studies, an impact study, and other analytical activities that will support the design of specific activities. Among these activities are (i) the continual support to the ongoing assessment of the teacher training system; (ii) an impact study of intensive in-service training programs for teachers, counselors, and principals (preschool, or preschool and basic); and (iii) the design and implementation of pilot programs to support teacher mentoring.

(d) Finally, the World Bank will be building on the success of the implementation of the ongoing projects. The success of the ongoing projects has established trust and solid technical relationships with its counterparts at MINED and the GoN.

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ANNEX 5: DISBURSEMENT-LINKED INDICATORS

COUNTRY: Nicaragua
Alliance for Education Quality Project

1. **The proposed Project will include the use of EEPs for selected subcomponents, disbursed with DLIs.** This change is meant to shift the focus in the education sector from financing inputs to financing educational results. The approach will be restricted to subcomponents 1.1.1 and 1.1.2. There are eight DLIs including key implementation steps to enhance teaching practices in the classroom by implementing an in-service preschool teacher training course (subcomponent 1.1.1) and a TMP for basic education teachers (subcomponent 1.1.2). Together, the DLIs would add up to 13 percent of total IDA financing (US$7 million). The proposed Project will finance against eligible expenditures (EEPs) in subcomponents 1.1.1 and 1.1.2. These will be incurred by MINED in selected budget lines related to teacher training expenditures.

2. **Within Component 1, subcomponents 1.1.1 and 1.1.2 are appropriate for defining DLIs as they are very likely to generate strong impacts on learning through improvements in classroom teacher practices.** Beyond being a key policy priority (as reflected in the Sectoral and Institutional Context section), this area is strongly backed by international evidence (as reflected in the Technical section). In addition, chosen targets for the DLIs represent key milestones for the successful implementation of the nationwide TMP that aims at enhancing teacher practices. Furthermore, improvements in teacher practices are an area of significant improvement in education policy that the World Bank would like to see sustained in the future, thus meriting a results-based approach.

3. **The DLIs, their targets, and protocols for their verification have been defined and agreed with the GoN.** None of the DLIs are time-bound. Hence, the disbursement against a corresponding DLI target could, in principle, be requested as soon as the defined targets are met *and* sufficient expenditures under the agreed EEPs have been incurred for reimbursement. DLIs 3, 5, 6, 7, and 8 are scalable, meaning that if the target has been partially met, the GoN could request disbursement only for the minimum target defined in Table 5.1 **Error! Reference source not found.**[45] All other DLIs are non-scalable, meaning that disbursements against each of these targets will be done against achieving the targets and by its full value. Descriptions of precise procedures, roles, and evidence of achievement for each DLI are outlined in Table 5.1 and further in the OM. The achievement of DLIs will be deemed acceptable to the World Bank only when the corresponding protocols for verification of DLIs are fully met. The World Bank will verify the achievement of the three non-scalable DLIs. The achievement of the scalable DLIs will require Independent Verification, including a report certifying the achievement of such DLIs together with all necessary raw data/information for spot checks by the World Bank. The Independent Verification entity will be locally hired so as to build local capacity and will be financed by the proposed Project. For all scalable DLIs, the Independent Verification entity will assess the degree of achievement under the protocols of verification.

[45] For example, take DLI3. The GoN will be paid 25% of the total amount of the DLI for each set of 2,125 teachers enrolled. For each disbursement request, this DLI could only be disbursed if at least 2,125 preschool teachers were enrolled.

Table 5.1. Protocols for Verifying DLIs*

DLI	Definitions	Proof of Accomplishment	Data Sources	Responsible Unit
DLI1: Preschool teacher training plan designed, approved and operationally tested **Target year:** 2017 **Value:** US$1.0 million **Scalable:** No **Verified by:** World Bank (technical DLI)	This Preschool teacher training plan covers two key processes: (a) the training of trainers and (b) the training of preschool teachers ('direct'). The 'Training of preschool teachers' plan should include, among others: 1. Revised three-year-long 'Training of preschool teachers' course program, including definition of core competencies to be developed and taking into account past experiences on *how* teachers learn, proposed methodology and key strategies to be adopted, and length of course modules 2. Guidelines for developing materials needed for the training of teachers (taking into account their previous knowledge and experience) 3. A detailed description of all hands-on training activities needed for training teachers. The 'Training of trainers' plan should include, among others: 4. Revised 'Training of trainers' course program, based on the 'Training of preschool teachers' course program defined above 5. Guidelines for developing materials needed during the training of the trainers (taking into account their previous knowledge and experience) A detailed description of all hand-on training activities for training trainers.	The DLI will be accomplished when MINED presents to the World Bank the approved Preschool teacher training plan (comprising the 'Training of trainers' plan and the 'Training of preschool teachers' plan), as well as evidence that it has been consulted/validated with the appropriate line directorates (the GDTT and GDPSE). The Preschool teacher training plan will be considered 'approved' by MINED after presenting (a) official approval document signed by MINED's *Dirección Superior* and (b) evidence of having circulated the approved document internally with the appropriate line directorates (GDTT and GDPSE) through the system InfoMINED. The Preschool teacher training plan will be considered 'operationally tested' by MINED after presenting the Plan's implementation strategy. This strategy should include, at least: (a) number of preschool teachers assigned to each training facility, (b) evidence of availability and capacity of training facilities (including TEPCE and municipal-level centers) for delivering training sessions for the assigned number of teachers, (c) evidence of having scheduled and booked the Program's face-to-face tutoring sessions in each facility including the corresponding amount of teachers	Official documents produced by MINED	GDTT, GDPSE

DLI	Definitions	Proof of Accomplishment	Data Sources	Responsible Unit
	The OM defines exactly the criteria for selecting trainers. All documents are expected to be shared with the World Bank for comments.	assigned, (d) scheduling of the learning circles and TEPCE training sessions, and (e) preliminary schedule of all mentoring visits.		
DLI2: National classroom observation instrument developed and validated **Target year:** 2017 **Value:** US$1.0 million **Scalable:** No **Verified by:** World Bank (technical DLI)	The national classroom observation instrument will be a new tool developed jointly by the relevant line directorates within MINED with support from the World Bank to assess teaching practices in basic education. This DLI tracks the development of this new instrument that includes two 'core instruments': one for primary and one for secondary education. The instruments will be tailored to each level of education, when applicable. The instrument should assess, at least: (a) extent of didactic planning, (b) application of pedagogical strategies focused on learning, and (c) application of evaluation strategies. Its design should use as inputs: (a) existing classroom observation instruments already considered and/or used by MINED (as per relevant educational level) and (b) international classroom observation instruments that are deemed relevant. The new instrument will be validated (for example, psychometrically) through a pilot application. The validation process should comprise properties such as reliability, validity, item discrimination, and item redundancy. The validation process will result in a written detailed report. This report will include (a) quantitative results characterizing the heterogeneity of the pedagogical practices (on average and by	The DLI will be accomplished when MINED presents to the World Bank the following documents: 1. Final national classroom observation instrument (by level of education: primary and secondary) 2. Validation and Preliminary Diagnostic Report 3. Minutes of a meeting among the appropriate line directories of MINED (for example, the GDTT, GDPE, and GDSE) showing that the documents have been consulted and agreed with them. All documents should be agreed upon with the World Bank before approval.	Official documents produced by MINED	GDTT, GDPE, GDSE

DLI	Definitions	Proof of Accomplishment	Data Sources	Responsible Unit
	educational level) and (b) results of the analysis on the psychometric properties of the instrument. The design and piloting of the instrument will be closely mentored by the World Bank technical.			
DLI3: 8,500 in-service preschool teachers enrolled in the teacher training program developed under the plan referred to in DLI (1), and the first face-to-face session of the program attended by said teachers **Target year:** 2018 **Value:** US$1.0 million **Scalable:** Yes (US$0.25 million per 2,125 in-service preschool teachers)	This DLI considers the number of preschool teachers who will participate in the Preschool teacher training program described under DLI1. A teacher will be considered enrolled in the course if he/she (a) has registered for participation in the program, (b) is an active preschool teacher at a regular, community, or multi-grade preschool, and (c) has attended the first face-to-face session of the Preschool teacher training program (the first module or induction). The first face-to-face training session of the training course will be carried out in municipal-level centers.	This DLI will be accomplished after verifying the enrollment and attendance registries (for the first face-to-face session) of the Preschool teacher training program. The attendance registries shall be accompanied by the complete name, age, teacher ID number, preschool center/facility to which the teacher is actively assigned, and the municipality to which each teacher is mapped to. This DLI will be verified by the presentation of the attendance registries and the Independent Verification Report (together with all materials needed to conduct spot checks in these). The Independent Verification Report will include the results of (a) in-site visits to the first face-to-face session (to be carried out during two consecutive days simultaneously in training facilities throughout the country), and (b) face-to-face or audio interviews to preschool teachers to validate their enrollment and attendance to the first face-to-face session. The Independent Verification Report will be carried out on a random sample of the enrolled teachers. The sample size will be large enough to be representative at the national level, although	Official documents produced by MINED; and Independent Verification Report (including supporting documents to allow spot checks by World Bank)	GDTT

DLI	Definitions	Proof of Accomplishment	Data Sources	Responsible Unit
Verified by: Independent (Third-Party) Verifier		the final size of the sample will be determined later in consultation with the World Bank. An error of up to 5% is deemed acceptable to the World Bank. The selection of preschool teachers will be done according to the final Teacher Training Plan timeline and schedule presented by MINED. The GoN will be paid 25% of the total amount of the DLI for each set of 2,125 in-service preschool teachers who enrolled in the program and attended the first face-to-face session. For each disbursement request, this DLI could only be disbursed if at least 2,125 -service preschool teachers were enrolled in the program and attended the first face-to-face session.		
DLI4: TMP designed and approved by MINED **Target year:** 2018 **Value:** US$1.0 million **Scalable:** No **Verified by:** World Bank (technical DLI)	The TMP is a document that should include the following: 1. 'Teacher Mentoring Protocol' with detailed guidelines on the teacher mentoring procedures ('what to do as a teacher mentor') for the academic year; this protocol shall include details on (a) *how* to carry out a classroom observation (depending on the observation instrument to be used) and (b) *how* to carry out the mentoring process based on the instrument but also including a self-reflection by the teacher (confidential), feedback from the mentor, the joint design of the teacher professional development plan, and the definition of a development route ('*ruta de seguimiento*');	The DLI will be accomplished when MINED presents the approved TMP document, as well as evidence that it has been consulted with the appropriate MINED line directorates (the GDTT, GDPE, and GDSE). The TMP will be considered 'approved by MINED' after presenting (a) official approval document signed by MINED's *Dirección Superior* and (b) evidence of having circulated the approved document internally with the appropriate line directorates (GDTT, GDPE and GDSE) through the system InfoMINED.	Official documents produced by MINED	GDTT, GDPE, GDSE

DLI	Definitions	Proof of Accomplishment	Data Sources	Responsible Unit
	2. 'Teacher Mentor Manual' shall include (a) the profile required for the mentors to be selected for applying the classroom observation instrument and conducting the mentoring of the teachers and (b) the profile of the trainers of the mentors. Key criteria for (a) and (b) will be defined jointly by MINED and World Bank technical experts; 3. 'Teacher Mentor Training' Program including syllabus (contents) and detailed activities and materials to be designed for the training of teacher mentors; 4. 'Teacher Mentor Training' Schedule, including activities and number of participants (mentors-to-be) in each session; this will be the basis for training at least 500 mentors; and 5. 'Teacher Professional Development Plan Guidelines' with detailed recommendations for improving selected teacher practices in the classroom on at least three main topics: didactic planning, student learning evaluation and teaching strategies; 6. Teacher-mentor assignment plan; the plan will detail how many/which teachers will each mentor visit, and how often so as to cover a nationally representative sample (stratified by education level and urban/rural); the plan will also include a schedule and routing of the visits needed to observe and mentor at least 1,250 teachers;	All documents should be agreed upon with the World Bank before approval.		

DLI	Definitions	Proof of Accomplishment	Data Sources	Responsible Unit
	All documents are expected to be shared with the World Bank for comments.			
DLI5: 500 education personnel trained in teacher mentoring **Target year:** 2019 **Value:** US$1.5 million **Scalable:** Yes (US$0.3 million per 100 trained) **Verified by:** Independent (Third-Party) Verifier	Education personnel refers to (a) school principals and/or (b) pedagogical counselors at the first subnational level (*asesores pedagógicos departamentales).* The training will focus on how to mentor teachers in the classroom, within the scope of the national TMP. Training should consider all official documentation produced and approved by MINED as set forth in the proof of accomplishment of DLI4. The mentor training process will be documented with an 'Official Mentor Training Report' produced by MINED detailing: training sessions carried out, list of participants that attended each session, their phone numbers, training contents and duration received by each of them, and the individual results of the tests applied to the mentors (to measure abilities to carry out classroom observation of teaching practices). This document should be shared with the World Bank before approval.	The DLI will be accomplished upon the presentation of MINED's Official Mentor Training Report and the Independent Verification Report documenting achievement (together with all materials needed to conduct spot checks in these). The Independent Verification Report will be based on the Official Mentor Training Report. The Independent Verification Report will be produced by selecting a 10% random sample of the 500 personnel trained. The Independent Verifier will conduct face-to-face or audio interviews with the mentors to validate the attendance. An error of up to 5% is deemed acceptable to the World Bank. The selection of mentors will be done according to the timeline presented by MINED to the Independent Verifier. The GoN will be paid 20% of the total amount of the DLI for training each set of 100 education personnel. For each disbursement request, this DLI could only be disbursed if at least 100 education personnel were trained.	MINED's Official Mentor Training Report; mentor training system registries; and Independent Verification Report (including supporting documents to allow spot checks by World Bank)	GDTT
DLI6: 1,250 teachers received at	This DLI considers the number of basic education teachers who have received at least three mentoring visits during the academic year. The mentoring process will be based on the information collected through the	The DLI will be accomplished when MINED presents the Official Teacher Mentoring Report covering the 1,250 teachers and the Independent Verification Report documenting achievement	MINED's Official Teacher Mentoring	GDTT

DLI	Definitions	Proof of Accomplishment	Data Sources	Responsible Unit
least three mentoring visits **Target year:** 2019 **Value:** US$0.5 million **Scalable:** Yes (US$0.25 million per 625 teachers) **Verified by:** Independent (Third-Party) Verifier	classroom observation instrument, and application of the teacher mentoring protocol as defined in DLI4. Each mentoring visit should include (a) the provision of teachers' feedback; (b) lesson planning; and (c) the development or update in the implementation of a joint professional development improvement plan. The teacher mentoring process will be documented through an Official Teacher Mentoring Report by MINED detailing: the number and identity of the teachers visited (including phone number), teacher mentor assigned, location, topics covered, and dates of visits to each teacher. Additionally, MINED is responsible for providing yearly analysis products (including, among others, reports, brief summaries, and presentations) that characterize teacher practices based on the results of the application of the classroom observation instrument and the progress teachers have had during the corresponding year. The Official Teacher Mentoring Report and the analysis products should be worked jointly with the World Bank.	(together with all materials needed to conduct spot checks in these). The Independent Verification Report will be based on the Official Teacher Mentoring Report. The Independent Verification Report will be produced by selecting at least a 10% random sample of the 1,250 teachers that received at least three mentoring visits. The Independent Verifier will conduct face-to-face or audio interviews with the teachers to validate if the mentorship was received according to acceptable quality standards. An error of 3% is deemed acceptable to the World Bank. The selection of teachers will be done according to the schedule presented by MINED, and will be validated with the World Bank. The GoN will be paid 50% of the total amount of the DLI for each set of 625 teachers who received at least three mentoring visits. For each disbursement request, this DLI could only be disbursed if at least 625 teachers received at least three mentoring visits in the corresponding year.	Report; mentoring system registries; and Independent Verification Report (including supporting documents to allow spot checks by World Bank)	
DLI7: **(a)** 1,250 teachers who received three mentoring visits under DLI (6), subsequently	This DLI tracks the sustainability and rollout of the TMP. This DLI covers the same 1,250 teachers who received three mentoring visits in the previous year (DLI6) and adds new teachers that receive at least three mentoring visits in the following year.	The DLI will be accomplished when MINED presents the Official Teacher Mentoring Report for the corresponding 2,500 teachers and the Independent Verification Report documenting achievement (together with all materials needed to conduct spot checks in these). The Independent Verification Report will be	MINED's Official Teacher Mentoring Report; mentoring system	GDTT

DLI	Definitions	Proof of Accomplishment	Data Sources	Responsible Unit
received an additional three mentoring visits; and **(b)** 1,250 teachers different from those covered under DLI (6), received at least three mentoring visits **Target year:** 2020 **Value:** US$0.5 million **Scalable:** Yes (US$0.25 million per 1,250 teachers) **Verified by:** Independent (Third-Party) Verifier	This DLI tracks the total number of teachers who have received at least three mentoring visits during the academic year (as part of their first or second year in the TMP). The teacher mentoring process will be documented through an Official Teacher Mentoring Report by MINED detailing: teachers visited (including phone number), teacher mentor assigned, location, topics covered, and dates of visits to each teacher. This process will be supported/expedited by IT infrastructure. Additionally, MINED will provide annually products showing that data have been cleaned/analyzed including, among others, reports, brief summaries, and presentations. The documents will, among others, characterize teacher practices based on the observation instrument and the progress teachers have made in their teaching practices during the year. The Official Teacher Mentoring Report and the analysis products should be consulted with the World Bank before approval.	based on the Official Teacher Mentoring Report. The Independent Verification Report will be produced by selecting at least a 10% random sample of the 2,500 teachers who received at least three mentoring visits in the corresponding year. The Independent Verifier will conduct face-to-face or audio interviews with the teachers to validate if the mentorship was received according to acceptable quality standards. An error of 3% is deemed acceptable to the World Bank. The selection of teachers will be done according to the schedule presented by MINED and will be validated with the World Bank. The GoN will be paid 50% of the total amount of the DLI for each set of 1,250 teachers who received at least three mentoring visits. For each disbursement request, this DLI could only be disbursed if at least 1,250 teachers received at least three mentoring visits in the corresponding year.	registries; and Independent Verification Report (including supporting documents to allow spot checks by World Bank)	
DLI8: 5,500 in-service preschool teachers certified **Target year:** 2021	This DLI considers the number of in-service preschool teachers who have received the final Preschool teacher training program certificate (*Certificado de Aptitudes Pedagógicas*, CAP). The program consists of four modules over three years. The requirements for obtaining the CAP are: (a) 80%	The DLI will be accomplished when MINED presents the official certification documentation including the certification registries, attendance registries, and grade registries; and the Independent Verification Report documenting achievement of the DLI (together with all materials needed to conduct spot checks in these).	MINED's official certification documents (including certification registries,	GDTT, Human Resources Office

DLI	Definitions	Proof of Accomplishment	Data Sources	Responsible Unit
Value: US$0.5 million **Scalable:** Yes (US$0.25 million per 2,750 in-service preschool teachers) **Verified by:** Independent (Third-Party) Verifier	attendance rate in each of the four modules and (b) an individual acceptable passing grade (that is, scoring 70 out of 100 points) in at least three out of the four modules. A teacher is considered 'certified' once he/she is given a CAP. The certification process led by MINED will include the production of the following official certification documentation: 1. MINED's official certification registries covering all teachers who have received the CAP. The certification registries shall include, among others, teacher's full names, teacher's ID and phone numbers, and preschool code (including signatures) 2. Program attendance registries for each teacher, for all four modules over the past three years 3. Program grade registries ('Acta') for each of the four modules (final grades)	The Independent Verification Report will be based on the official certification documentation. The Independent Verification Report will be produced by selecting a 15–20% random sample of the 5,500 in-service preschool teachers certified. The Independent Verifier will conduct face-to-face or audio interviews with the teachers to validate the certification was fairly attributed as per meeting requirements with acceptable standards. An error of 3% is deemed acceptable to the World Bank. The GoN will be paid 50% of the total amount of the DLI for each set of 2,750 in-service preschool teachers certified. For each disbursement request, this DLI could only be disbursed if at least 2,750 in-service preschool teachers were certified.	attendance registries, and grade registries); and Independent Verification Report (including supporting documents to allow spot checks by World Bank)	

Note: *To be verified by December 30 in the reference year; none of the DLIs are time-bound. GDTT = General Directorate of Teacher Training (*Dirección General de Formación Docente*); GDPE = General Directorate of Primary Education (*Dirección General de Educación Primaria*); GDSE = General Directorate of Secondary Education (*Dirección General de Educación Secundaria*); and GDPSE = General Directorate of Preschool Education (*Dirección General de Educación Preescolar*).