

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PANAMA

**PROGRAM TO IMPROVE EFFICIENCY AND QUALITY IN THE
EDUCATION SECTOR**

(PN-L1143)

LOAN PROPOSAL

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ABBREVIATIONS

CGR	Office of the Comptroller General
DNC	Dirección Nacional de Contabilidad [National Accounting Office]
DNEE	Dirección Nacional de Evaluación Educativa [National Educational Evaluation Office]
GDP	Gross domestic product
ICB	International competitive bidding
INEC	National Statistics and Census Institute
IPSAS	International Public Sector Accounting Standards
MEDUCA	Ministry of Education
MEF	Ministry of the Economy and Finance
NCB	National competitive bidding
PEU	Project execution unit
PISA	Programme for International Student Assessment
QCBS	Quality- and cost-based selection
SAP	Systems, applications, and products
SERCE	Segundo Estudio Regional Comparativo y Explicativo [Second Regional Comparative and Explanatory Study]
SIACE	Sistema de Administración de Centros Educativos [School Management System]
SIAREH	Sistema de Administración de Recursos Humanos [Human Resources Administration System]
SIMECE	Sistema Integral de Mejoramiento de la Calidad de la Educación [Comprehensive System to Improve Quality in Education]
TERCE	Tercer Estudio Regional Comparativo y Explicativo [Third Regional Comparative and Explanatory Study]

PROJECT SUMMARY
PANAMA
PROGRAM TO IMPROVE EFFICIENCY AND QUALITY IN THE EDUCATION SECTOR
(PN-L1143)

Financial terms and conditions				
Borrower: Republic of Panama			Flexible Financing Facility ^(a)	
			Amortization period:	25 years
Executing agency: Ministry of Education (MEDUCA)			Disbursement period:	5 years
			Grace period:	5.5 years ^(b)
Source	Amount (US\$)	%	Interest rate:	LIBOR-based
IDB (OC)	100,000,000	100	Credit fee:	(c)
			Inspection and supervision fee:	(c)
Total	100,000,000	100	Weighted average life (WAL):	15.25 years
			Approval currency:	United States dollars from the Ordinary Capital
Project at a glance				
Project objective/description: The general objective of the program is to increase the learning achievement levels and skills of Panamanian public school students through improved quality and efficiency in the provision of educational services. The specific objectives are: (i) to improve efficiency in resource allocation and to guide education policy decisions through a digital transformation of MEDUCA's information systems; (ii) to strengthen the performance framework for quality in the education sector; (iii) to implement comprehensive pedagogical support for schools, with a focus on the lowest-performing schools; and (iv) to ensure that the four comprehensive schools are properly maintained and equipped.				
Special contractual conditions precedent to the first disbursement of the loan: (i) establishment of the project execution unit (PEU), with the hiring of the general coordinator, the technical coordinators, and the financial management and procurement specialists by MEDUCA, in accordance with the profiles and conditions previously agreed upon with the Bank (paragraph 3.2); and (ii) entry into force of the program Operating Manual in accordance with the terms previously agreed upon with the Bank (paragraph 3.4).				
Exceptions to Bank policies: None.				
Strategic alignment				
Challenges: ^(d)	SI	<input checked="" type="checkbox"/>	PI	<input type="checkbox"/>
			EI	<input type="checkbox"/>
Crosscutting issues: ^(e)	GD	<input type="checkbox"/>	CC	<input type="checkbox"/>
			IC	<input type="checkbox"/>

^(a) Under the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes to the amortization schedule, as well as currency and interest rate conversions. The Bank will take operational and risk management considerations into account when reviewing such requests.

^(b) Under the flexible repayment options of the Flexible Financing Facility, changes to the grace period are permitted provided that they do not entail any extension of the original weighted average life of the loan or the last payment date as documented in the loan contract.

^(c) The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with applicable policies.

^(d) SI (Social Inclusion and Equality); PI (Productivity and Innovation); EI (Economic Integration).

^(e) GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); IC (Institutional Capacity and Rule of Law).

I. DESCRIPTION AND RESULTS MONITORING

A. Background, problem addressed, and rationale

- 1.1 Panama had the fastest-growing economy in Latin America and the Caribbean between 2010 and 2016, with an average annual growth rate of 7.2%.¹ This growth was primarily spurred by an increase in aggregate investment from 23% of GDP in 2010 to about 26.2% in 2016.² Panama's economic growth and fiscal, financial, and trade measures allowed the country to further integrate itself into the global economy and achieve an investment-grade rating, staking its position as a major financial, logistics, and trade hub with access to external sources of financing. Meanwhile, Panama reduced its poverty rate from 38.3% in 2006 to 22.1% in 2016³ by targeting social-sector spending, among other actions. The education sector's budget, in particular, increased by 100% in nominal terms between 2011 and 2016.⁴ Despite this increase, the sector currently invests 3.7% of GDP in education,⁵ which is below the regional average (4.6% of GDP).⁶
- 1.2 **The main challenge in Panama's education system is low levels of student achievement and skills.**⁷ Panama has made significant strides in terms of education coverage. Its net coverage rates for primary and secondary education, in fact, exceed the regional averages.⁸ However, student achievement and skills are very low given Panama's level of economic development. Panama placed among the lowest-scoring countries in the 2009 Programme for International Student Assessment (PISA),⁹ with 65% and 80% of Panama's students, respectively, failing to reach Level 2 of minimum competencies in reading and mathematics for success in the twenty-first century. More recently, the Third Regional Comparative and Explanatory Study (TERCE) of 2013 found that Panama was below the regional average in all evaluated subject areas (language, mathematics, and science) in both third and sixth grades. The quality of education varies by geographical area and socioeconomic status. The National Academic Achievement Tests of 2005, administered to third-grade students, found that students in rural and indigenous areas have lower levels of proficiency in Spanish, mathematics, natural science, and social science than their urban counterparts.¹⁰ The TERCE 2013 exams also found

¹ Panama's National Statistics and Census Institute (INEC).

² Bank calculations using data from the International Monetary Fund.

³ Ministry of the Economy and Finance.

⁴ INEC.

⁵ INEC, 2014. Eighty-five percent of the sector's resources are used for payroll.

⁶ [UNESCO](#).

⁷ See [optional electronic link #5](#), "El sector de educación en Panamá," for a description of the legal framework and organization.

⁸ Panama's net coverage rates for primary and secondary education are 97% and 83%, respectively. The Latin American averages were 94% and 74%, respectively (CIMA, IDB, 2015).

⁹ Panama placed next-to-last in reading comprehension. Two thirds of all students are below the minimum expected level in reading comprehension, which limits their ability to learn in other subject areas. Panama placed last in mathematics competency and next-to-last in science competency (PISA, 2009).

¹⁰ In language, for example, 30% of students in indigenous territories had deficiencies, compared with 18% of students nationwide. Panama does not have more up-to-date disaggregated data on student achievement.

that Panama is among the countries with the greatest discrepancies in student achievement according to students' place of residence and socioeconomic status.¹¹

- 1.3 Multiple factors are behind Panama's low levels of student achievement and skills, such as (i) a lack of timely, relevant, and reliable data to help run the school system; (ii) a lack of an effective performance framework for quality in education; (iii) a lack of comprehensive and continuous pedagogical support for low-performing schools and teachers; and (iv) inadequate and dilapidated school infrastructure.¹² These factors are interrelated. The lack of data, including performance evaluation data, hinders implementation of a comprehensive pedagogical approach (for training, materials, and adequate infrastructure) aimed at improving the quality of the education system. These factors are further detailed below.
- 1.4 **The lack of timely, relevant, and reliable data limits the ability of the Ministry of Education (MEDUCA) to make decisions that would improve quality and efficiency in the sector.** There is a significant delay in registering enrolled students in the School Management System (SIACE). Recent evidence shows that, as of the first quarter of 2017, only 30% of all schools had begun to report their enrollment data in SIACE. This delay affects MEDUCA's ability to monitor outcomes and target resources and support in an efficient manner.¹³ Because SIACE relies on software that has been discontinued by the manufacturer,¹⁴ MEDUCA cannot incorporate improvements to make it more efficient or provide educators with multiple ways to access the system in order to report data. Data quality is another weakness, as SIACE does not allow for the use of controls or filters.
- 1.5 Information related to human resources is limited or outdated, particularly with regard to geographic location, class load, and teacher salaries.¹⁵ The Human Resources Administration System (SIAREH) is limited to payroll disbursements. MEDUCA also lacks a system containing information on basic infrastructure for schools, on infrastructure and maintenance needs, or on availability of teaching materials and resources. A recent diagnostic assessment found that the technologies in these systems are more for transactional purposes than for educational management.¹⁶ This creates uncertainty as to the actual numbers of students and teachers in the Panamanian education system, as well as the state of its infrastructure.
- 1.6 The weaknesses specific to each system are compounded by the fact that they do not function in an integrated manner. Each system gathers and generates data in their own silos, with no standardized protocols for processing or sharing data, and their information technologies are incompatible, leading to a lack of coordination between MEDUCA's various divisions.¹⁷ SIACE, for example, was developed and is

¹¹ CIMA, IDB.

¹² IDB (2015), Education Sector Technical Note – Panama. [Optional electronic link #3.](#)

¹³ Outdated information limits the ability to monitor student attendance and grades, which would aid in designing early warning mechanisms to help mitigate delays in academic achievement and prevent student dropouts.

¹⁴ SIACE uses a software program known as Oracle Form, which in essence is merely a data entry program. This technology has been rendered obsolete, and technical support for it is no longer available from the manufacturer.

¹⁵ Mejer, F. (July 2016, unpublished), "Aspectos Críticos de Eficiencia en el Sector Educativo Panameño," Report to the IDB. [Optional electronic link #6.](#)

¹⁶ Mejer, F. (July 2016, unpublished). [Optional electronic link #6.](#)

¹⁷ Mejer, F. (July 2016, unpublished), [Optional electronic link #6.](#)

managed within the Information Technology Division, while SIAREH¹⁸ belongs to the Human Resources Division.¹⁹

- 1.7 There is no effective performance framework to promote quality in education and continuous improvement. While the National Educational Evaluation Office (DNEE) has been in place since 2002 to monitor the sector,²⁰ current evaluation mechanisms do not provide information to help improve quality in education. They do not identify how teachers are teaching or what students are learning. Current teacher evaluations use a self-assessment approach, which does not measure teachers' in-classroom performance or tie their performance to students' academic performance. For example, an analysis of teacher self-assessments in 2016 found that, despite variations from one province to another, an average of 60% of all teachers rated themselves excellent, while 96% rated themselves excellent or good²¹—figures that stand in sharp contrast to the low levels of student achievement. Meanwhile, evaluations of student achievement are not conducted on a regular basis. The National Academic Achievement Test was administered only in 2005 and 2008 and was a sample-based exam, which makes it hard to use the results to identify specific underperforming schools and groups for the purpose of taking corrective measures. Despite the limitations, these tests and the evidence from the international tests in which the country has participated (SERCE in 2006, PISA in 2009, and TERCE in 2013) have revealed structural weaknesses in the way in which primary school teachers are teaching language and mathematics. In late 2016, MEDUCA administered the first census-based exam in reading and writing for third-grade students, and the results confirm low levels of student achievement and identify the schools and teachers in need of more support.
- 1.8 A comprehensive and continuous pedagogical support mechanism is needed to help schools ensure quality in education. Panama's education system uses a national competency-based curriculum. This curriculum, however, is quite broad and is organized by conceptual content, with scant guidance for teachers on how to teach these competencies. It also lacks a comprehensive strategy of pedagogical support to help teachers teach the content.²² Meanwhile, given the weaknesses in the information systems and the lack of performance evaluations of teachers and students, MEDUCA cannot identify specific needs for improving schools and ends up designing support programs that are not always appropriate. Existing training programs, for example, are general in nature, massive in scale, and short in duration. In the classroom, teachers lack essential pedagogical tools—such as books, classroom libraries, and math and science manipulatives—which would help them teach effectively.
- 1.9 Inadequate school infrastructure has a negative effect on learning. The lack of reliable information on the state of education infrastructure limits MEDUCA's institutional capacity to plan investments and monitor efforts to close gaps. Current

¹⁸ The process for promoting a teacher takes two years on average, largely because the process is manual and because SIAREH's protocols are unsuitable.

¹⁹ The multiplicity of systems and the lack of coordination between them stem from the fact that these systems were created in response to the needs of each entity, with no unifying vision of educational management.

²⁰ Executive Decree 423 established the DNEE in 2002 to measure quality in education in terms of student learning outcomes and system performance.

²¹ IDB analysis based on MEDUCA data.

²² A. L. Gazzola, M. Furman, A. Marquéz, A. Restrepo, and M. Duque (May 2016, unpublished), "Análisis del Currículo y del Programa Aprende al Máximo: Hoja de Ruta para Mejorar," IDB consulting report.

actions are spurred by demand, in response to requests from school principals, and are typically aimed at solving problems that are already serious. This reactive approach sometimes causes interruptions in educational services (closure of classrooms and other spaces for repair). In 2016 and 2017, MEDUCA has invested some US\$36 million in corrective maintenance to meet specific requirements or to respond to crisis or emergency situations, restricting the number of schools whose needs can be addressed. In 2017, 62% of schools will not have their maintenance needs met.²³

- 1.10 Under operation PN-L1072 (loan 2734/OC-PN), “Innovation in School Infrastructure,” 21 schools have been expanded to offer the early secondary level, 25 support classrooms have been built, and 2 comprehensive schools (kindergarden through grade 12) are nearing completion. Work on these two schools is approximately 85% complete and expected to conclude under the active loan, although they still need to be furnished and equipped. Although the cost of equipping these schools was included in the loan for the operation and despite anticipating a possible increase in construction costs, the costs ran over the estimates, due in one instance to a change in location and design and, in the other, to the need for reinforcement in the form of embankments. Labor costs also increased due to the extension of execution periods, among other additional costs related to construction in difficult-to-access locations, which were not reflected in the original price. It should be noted that delays in these new works have not affected the availability of educational services. The continuity of Bank support has been coordinated with the government to ensure the full functionality and maintenance of these schools, as well as preventive maintenance of the two comprehensive schools that have already been built and equipped under operation PN-L1064 (loan 2462/OC-PN), “Educational Facilities and Learning Quality.”²⁴
- 1.11 In addition, a national preventive maintenance plan is needed to define the roles and responsibilities of members of the education community, to document and strengthen the maintenance management framework, and to allow for more effective and efficient use of available resources in order to ensure the sustainability of education infrastructure.²⁵ The maintenance plan will be implemented on a pilot basis in the four comprehensive schools to provide continuous support in these communities and sustain the investments.
- 1.12 Providing a quality education is a priority for the Panamanian government. MEDUCA’s strategic plan for 2014-2019 identifies the following priorities: (i) educational modernization and quality; (ii) development of an efficient and effective management model supported by the use of technology; and (iii) equity in education to ensure that all students receive a quality education.²⁶ The government has also been promoting a broad-based dialogue with civil society on the topic of education. The document titled “Compromiso Nacional por la Educación”²⁷ outlines

²³ Data from MEDUCA’s National Maintenance Office, July 2017.

²⁴ Operation PN-L1064: scheduled for completion in 2017, 97.7% disbursed, approved in 2010 for US\$30 million. Operation PN-L1072: scheduled for completion in 2018, 78.6% disbursed, approved in 2012 for US\$70 million.

²⁵ Ruiz Bode, Irayda M. (June 2017, unpublished), “Marco Conceptual del Programa de Mantenimiento de la Infraestructura Educativa,” Report to the IDB.

²⁶ MEDUCA Strategic Plan 2014-2019. [Optional electronic link #8.](#)

²⁷ Compromiso Nacional por la Educación: Resultado de la Fase de Diálogo (August 2017). [Optional electronic link #9.](#)

the consensus on education policy proposals, and the government is committed to uphold these agreements. These proposals are aligned with the strategic plan and emphasize the need for efforts to improve quality in education, teacher training, and management of the education system.

- 1.13 In line with these strategic priorities, the Panamanian government has taken a number of measures. The government has been promoting the “Digital Agenda” initiative to modernize government agencies and incorporate digital technologies. One of the priority interventions is related to implementation of a technology platform for human resources for the entire public sector. One of the priority sectors for this initiative is MEDUCA, which has been coordinating these actions with the National Authority for Governmental Innovation. To lead and expedite the digital transformation throughout the education system, the Technological Innovation Unit was created in late 2016 as part of MEDUCA’s Planning Division, with a view to integrating the information technology, operational, and strategic areas. To strengthen the evaluation framework, the government designed a proposal, shared it with actors in the sector, and issued Executive Decree 878 in September 2016, which established the Comprehensive System to Improve Quality in Education (SIMECE). This system promotes quality in the Panamanian education system through the use of performance indicators and standards to evaluate the main actors in the education system.²⁸ In addition, the country has committed to participate in PISA 2018, which reflects its commitment to improve the quality and efficiency of educational services. To improve teaching, MEDUCA adopted an initiative known as *Derechos Fundamentales de Aprendizaje*, or Basic Learning Rights, in 2016, which provides a curricular complement to guide teachers in developing the competencies included in the elementary education curriculum, with a priority on mathematics and language.²⁹ This initiative relies on some 400 pedagogical coordinators to assist teachers in the classroom in implementing the Basic Learning Rights.³⁰ To ensure preventive and corrective maintenance at schools nationwide, Executive Decree 210 was issued in April 2016 to create the National Maintenance Office. As a whole, these recent actions by the government show a clear orientation toward the strategic objectives set forth in this operation and are aligned with good practices implemented in other countries in the region.³¹ Against this backdrop, the government requested the Bank’s financial and technical support for conceptualizing, designing, and implementing its quality assurance system.
- 1.14 **Strategy for the operation.** The change theory for this operation assumes that a rigorous quality assurance system is key to increasing student achievement and skills, as demonstrated by comparative evidence from high-performing countries.³² This system should incorporate three dimensions: (i) information for sector management; (ii) an evaluation system for identifying schools, teachers, and

²⁸ The evaluations of the main actors in the education system are being designed with technical assistance from the Bank (operation PN-T1083; ATN/FT-13241-PN). The evaluations will be used for the first time in 2018 by MEDUCA’s DNEE.

²⁹ Duque, M. (2017), “Racionalidad de la Intervención Pedagógica,” [Optional electronic link #7](#).

³⁰ The pedagogical coordinators are supervised in their regions by the primary education supervisor and the central supervisor in administrative and pedagogical matters. The coordinators also submit weekly reports (or twice-monthly in difficult-to-access areas) via Survey Monkey, and these reports are reviewed by the central team to monitor progress for each coordinator and in each region. The supervisors will conduct an annual evaluation of each pedagogical coordinator.

³¹ IDB (2016), Education and Early Childhood Development Sector Framework Document.

³² Ibid.

students by level of performance; and (iii) support programs targeted to the lowest-performing schools, teachers, and students.³³ To build a similar system in Panama, the following mutually complementary interventions are proposed: First, MEDUCA should establish an integrated data system with reliable, relevant, timely information for making decisions and designing interventions to continuously improve efficiency and quality in the education system. Second, an effective framework for evaluating quality should have relevant information on students' current learning levels and teachers' teaching skills, which will be used to design and implement specific, targeted interventions for pedagogical improvements in low-performing areas, promoting the teaching skills that teachers need and bringing student achievement levels up to par. Lastly, to create an environment conducive to learning for students, proper maintenance of school infrastructure should be ensured. These proposed interventions will help MEDUCA lay the structural groundwork for carrying out these processes in a continuous and sustained manner.

- 1.15 The proposed program is based on recent literature on the basic elements that should be included in an education system designed to continuously improve student learning outcomes.³⁴ Education systems with good information systems have positive effects throughout the education management process, from policymaking and monitoring to implementation and evaluation of effectiveness. These systems generate efficiency gains in resource allocation. For example, the City of Bogotá used updated online information on enrollment and teacher placement to redistribute teachers from lower- to higher-enrollment schools.³⁵ This allowed for the enrollment of 120,000 new students without the need to hire new staff. Analytical platforms, meanwhile, make it possible to customize reports and allow users to generate them on demand, with higher-quality data and quicker turnaround times.³⁶ This leads to better management decisions.³⁷ Also, an effective framework for monitoring outcomes, such as SIMECE, helps to identify underperforming groups and schools and to intervene in a timely and commensurate manner.³⁸ Studies have shown that the use of systems to monitor teacher performance and improved effectiveness has a positive correlation with student performance.³⁹ Emerging literature has shown that accountability in low-performing

³³ The program will focus on mathematics and language. Mathematics and language are two cornerstones for achievement in any other subject area. Also, evidence from PISA 2009, SERCE, and TERCE indicates that Panamanian students are performing very poorly in both subjects.

³⁴ IDB 2016, *op. cit.*

³⁵ Cassidy, Thomas (2006), "Education Management Information Systems (EMIS) in Latin America and the Caribbean: Lessons and Challenges," IDB.

³⁶ One educational institution reduced the time it takes to generate reports from 15 hours to 15 minutes. IBM Cognos (2003). "Business Intelligence for the Public Sector."

³⁷ Wieder and Ossimitz (2015), "The Impact of Business Intelligence on the Quality of Decision Making — A Mediation Model," *Procedia Computer Science*.

³⁸ IDB 2016, *op. cit.*

³⁹ Duflo, Hanna, and Ryan (2012), "Incentives Work: Getting Teachers to Come to School," *American Economic Review*; Dee and Wyckoff (2013), "Incentives, Selection, and Teacher Performance: Evidence from IMPACT," NBER working paper.

schools is a strong driver of improved student performance and changes in pedagogical and instructional policies and practices.⁴⁰

- 1.16 Evidence suggests that the teacher is one of the leading factors in increasing student achievement and developing student skills.⁴¹ Exposure to a high-quality teacher during the school year increases student achievement by 0.2 to 0.3 standard deviations.⁴² A trained teacher who is proficient in the subject he or she teaches is associated with positive effects on student achievement.⁴³ Studies have shown that training should strike a balance between pedagogical tools and content-specific tools.⁴⁴ Meanwhile, recent literature shows that assistance is needed to help less skillful teachers improve their teaching skills.⁴⁵ Along these lines, comprehensive and continuous pedagogical support provided by in-classroom pedagogical coordinators is one way to provide individualized, timely feedback. On a complementary level, evidence suggests that investments in school infrastructure and equipment and effective delivery of basic services create minimum conditions for teaching and have a positive effect on student performance.⁴⁶ For example, establishing spaces to provide support to teaching staff has a positive impact on education outcomes,⁴⁷ and having quality school infrastructure (e.g., walls, floors, and roofs) has a positive effect on school attendance.⁴⁸
- 1.17 The proposed interventions for improving efficiency and quality in education are applicable to Panama for the following reasons. First, previous experiences in Panama would facilitate their implementation. For example, two of MEDUCA's three key information systems are already up and running. SIACE, in particular, is widely accepted and used by teachers and principals despite its difficulties.⁴⁹ Panama has

⁴⁰ Allen and Burgess (2012), "How Should We Treat Under-performing Schools? A Regression Discontinuity Analysis of School Inspections in England," Bristol; Rockoff and Turner (2008), "Short Run Impacts of Accountability on School Quality," NBER working paper; Jacob (2005), "Accountability, Incentives and Behavior: The Impact of High-Stakes Testing in the Chicago Public Schools," *Journal of Public Economics*; Rouse et al. (2013), "Feeling the Florida Heat? How Low-Performing Schools Respond to Voucher and Accountability Pressure," *American Economic Journal*.

⁴¹ Hanushek and Rivkin (2012), "The Distribution of Teacher Quality and Implications for Policy," *Annual Review of Economics*; E. A. Hanushek (2011), "Higher Teacher Quality Would Catapult U.S. Toward Economic Growth"; Kane and Staiger (2008), "Estimating Teacher Impacts on Student Achievement: An Experimental Evaluation," NBER working paper.

⁴² Rivkin, Hanushek, and Kain (2005), "Teachers, Schools, and Academic Achievement," *Econometrica*.

⁴³ Clotfelter, Ladd, and Vigdor (2007), "How and Why Do Teacher Credentials Matter for Student Achievement?" NBER working paper.

⁴⁴ Kane, Rockoff, and Staiger (2006), "What Does Certification Tell Us About Teacher Effectiveness? Evidence from New York City," NBER working paper.

⁴⁵ Ganimian and Murnane (2016), "Improving Education in Developing Countries: Lessons from Rigorous Impact Evaluations," *Review of Educational Research*.

⁴⁶ Glewwe and Muralidharan (2015), "Improving School Education Outcomes in Developing Countries"; Baker, Goesling, and LeTendre (2002), "Socioeconomic Status, School Quality, and National Economic Development: A Cross-National Analysis of the 'Heyneman-Loxley Effect' on Mathematics and Science Achievement," *Comparative Education Review*; Heyneman and Loxley (1983), "The Effect of Primary-School Quality on Academic Achievement Across Twenty-Nine High- and Low-Income Countries," *American Journal of Sociology*.

⁴⁷ Cuesta, Glewwe, and Krause (2015), "School Infrastructure and Educational Outcomes: A Literature Review, with Special Reference to Latin America"; Duarte, Jaureguiberry, and Racimo (2017), "Sufficiency, Equity and Effectiveness of School Infrastructure in Latin America according to TERCE," IDB-UNESCO.

⁴⁸ Cuesta, Glewwe, and Krause (2015), *op. cit.*

⁴⁹ One of the most significant challenges in implementing information systems lies in getting users to accept and adopt cultural change.

previously tested students, albeit on a sample basis, and has participated in regional and international exams. The pedagogical support intervention has been adapted from an experience that is being successfully implemented in Colombia and Brazil, where conditions are similar to Panama's. Second, there is a strong commitment to improve the areas targeted in this operation, from the highest levels of government to civil society, which will also ensure sustainability over time. Third, technical capacity is being installed in MEDUCA for the design, implementation, and sustainability of the interventions.⁵⁰

- 1.18 **The Bank's support in the sector.** The Bank and the Panamanian government have been working closely together in the education sector. Current loan operations PN-L1064 (2462/OC-PN) and PN-L1072 (2734/OC-PN) have helped to expand the availability of educational services, especially at the early secondary level, through improved access to quality infrastructure in indigenous territories and periurban areas. In the past year, the technical assistance has been providing significant inputs to improve the quality of education in Panama. In particular, the technical-cooperation operation "Improving the Efficiency of the Education Sector" (PN-T1150, ATN/OC-15444-PN) has provided support for (i) identification of minimum knowledge and competencies for the basic learnings rights; (ii) production of materials to support the inclusion of the Basic Learning Rights in the curriculum; (iii) logistical support to carry out the first census-based examination in reading and writing for third-grade students; and (iv) diagnostic assessment of sector management with a focus on information systems. The Bank is also supporting MEDUCA in developing a proposal for implementing Executive Decree 878 related to the evaluation of schools and teacher, principal, and supervisor performance, and for designing the specific intervention for lowest-performing schools and the guidelines for the preventive maintenance plan. The technical-cooperation operations PN-T1166 (ATN/OC-15991-PN), "Improving Mathematics Achievement through Intercultural Teaching," and PN-T1154 (ATN/JF-15855-PN), "Intercultural and Bilingual Preschool Mathematics" were recently approved, while operation PN-T1170 (ATN/OC-16319-PN), "Improvements to Nutritional Health and Quality of Education for Indigenous Children," is under preparation. The objective of loan operation PN-L1117 (3692/OC-PN), "Innovation Program for Social Inclusion and Productivity," is to improve social inclusion, competitiveness, and productivity. One of its components promotes a teacher training program for improvements in mathematics and science.
- 1.19 **Lessons learned.** The operation was designed in view of the Bank's lessons learned in Panama and from experiences in other countries in the region. Inputs, impact evaluations, and qualitative evidence from loan operations PN-L1064⁵¹ and PN-L1072 were used in designing components 3 and 4, especially in terms of qualification of and support for primary school teachers in language arts and mathematics, and methods for distributing teaching materials to schools. Lessons on inventory and maintenance of school infrastructure from the technical-cooperation operation "Learning in 21st Century Schools—Phase Two" (RG-T2529,

⁵⁰ MEDUCA has created a digital innovation unit with personnel highly qualified in cutting-edge digital technologies. In addition, evaluation systems are being designed and training is being provided in how to implement the basic learning rights.

⁵¹ M. Paredes (September 2015, unpublished), "Informe Final de Evaluación de Impacto del Proyecto Espacios Educativos y Calidad de los Aprendizajes," IDB consulting report; V. Castro Cardenal (October 2016, unpublished), "EECA en el contexto del sistema educativo panameño," IDB consulting report.

ATN/OC-14698-RG) were used to guide the design and development of the infrastructure management and maintenance system under component 1 and the maintenance plan under component 4. This lesson learned highlights the importance of including sufficient funds in the loans to ensure maintenance of the schools (paragraph 1.10). Recent public policy experience in other countries in the region—such as Brazil, Colombia, Peru, and Chile—was also tapped, especially as it relates to teacher evaluation systems. The experience in Minas Gerais, Brazil, for example, showed that the results of census-based exams can be used to guide targeted pedagogical interventions,⁵² as proposed in components 2 and 3. The evaluation framework developed in Colombia, Peru, and Chile was used to design the teacher evaluations proposed in component 2, which includes classroom observations.

- 1.20 **Strategic alignment.** The program is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008) and is aligned with the development challenge of reducing social exclusion and inequality, inasmuch as it will increase the achievement and skills of students in the public schools, especially the lowest-performing schools. In addition, the program will contribute to the Corporate Results Framework 2016-2019 (document GN-2727-6) with regard to the following indicators: (i) students benefited by education projects, and (ii) government agencies benefited by projects that strengthen technological and managerial tools to improve public service delivery. It is consistent with the Bank's country strategy with Panama 2015-2019 (document GN-2838), as it contributes to the strategic objective of strengthening the education profile of the population, and the loan was included in Panama's 2017 Country Program Document (document GN-2884). It is aligned with the Strategy on Social Policy for Equity and Productivity (document GN-2588-4) and with the Education and Early Childhood Development Sector Framework Document (document GN-2708-5) in dimensions 1, 3, and 4.⁵³ It is also aligned with the education policies and lines of action of the new "National Commitment to Education."⁵⁴
- 1.21 **Beneficiaries.** The beneficiaries of components 1 and 4 are all Panamanian students in public schools. The beneficiaries of component 2 are all Panamanian students of public primary schools and all teachers. The beneficiaries of component 3 are all students of public primary schools, with special interventions in low-performing schools that will benefit students, teachers, and principals alike.
- 1.22 While the program does not have a specific focus on gender, it will promote the disaggregation by gender of statistical information in the systems under component 1 and of the quality testing results under component 2, in order to help ensure that better information is available in the future on gender gaps in education in Panama and to help take appropriate corrective measures.

⁵² A team from MEDUCA, as part of intraregional technical-cooperation operation PN-T1164, visited Brazil in June 2016 to observe the implementation of achievement tests.

⁵³ The dimensions that contribute to the program are as follows: high student achievement goals guide the rendering and monitoring of educational services (dimension 1); all students have access to effective teachers (dimension 3); and all schools have adequate resources (dimension 4).

⁵⁴ The results of the "National Commitment to Education" dialogue, begun in 2016, were presented to the Panamanian public in August 2017. The activities of the proposed program are based on education policies in the following thematic areas: quality in education (topic 1-1.2.2 and topic 2-1.1.2), teacher training (topic 1-1.2, 1.4, and topic 2-2.1.1), educational management (topic 1-1.10 and topic 2-2.3), and investment in education (topic 2-2.2).

B. Objectives, components, and cost

- 1.23 The general objective of the program is to increase the learning achievement levels and skills of Panamanian public school students through improved quality and efficiency in the provision of educational services. The specific objectives are (i) to improve efficiency in resource allocation and to guide education policy decisions through a digital transformation of MEDUCA's information systems; (ii) to strengthen the performance framework for quality in the education sector; (iii) to implement comprehensive pedagogical support for schools, with a focus on the lowest-performing schools; and (iv) to ensure that the four comprehensive schools are properly maintained and equipped. These objectives will be achieved through the following components.
- 1.24 **Component 1. Digital transformation to strengthen management of the education system (US\$13.5 million).** The objective of this component is to achieve greater efficiency in resource allocation and to guide education policy decisions through the digital transformation of MEDUCA's information systems. This component will finance the following activities: (i) the redesign of the School Management System (SIACE), including the school module, the teacher module, and the student module; (ii) the restructuring of the Human Resources Administration System (SIAREH), which will entail the reengineering of processes, on the basis of which the information technology modules will be developed to automate the new processes. The modified modules will be those for payroll, hiring and promotion of teachers, and expiration and pending obligations. The modules will be redesigned under the business process management solution to interconnect them to SAP (systems, applications, and products),⁵⁵ previously purchased by the government; (iii) design of an infrastructure management and maintenance system, which will feature a module for education infrastructure census data, and a subsystem to manage and maintain this infrastructure. The investments in these three systems will follow a comprehensive approach in order to create a single, integrated data system. Financing will also be provided for (iv) business intelligence software to be installed on the integrated data system (systems i, ii, and iii), which will serve as an analytical platform to generate relevant, timely, and high-quality information for decision-making at the various levels of the system; (v) a document management system to digitalize information generated by MEDUCA; and (vi) training of MEDUCA personnel on how to operate the new management systems and how to use the information in decision-making. The outputs of this component are closely related to other program activities. The information generated by the three systems—SIACE, SIAREH, and the infrastructure system—will inform the definition and scope of components 3 and 4. Meanwhile, the information generated by the activities under components 2, 3, and 4 will become a key input for the data in the information systems promoted by this component. In sum, this will continuously generate synergies between the components of this program.
- 1.25 **Component 2. Support for the National Educational Evaluation System (US\$25.7 million).** The objective of this component is to strengthen the performance framework for quality in the education sector by incorporating best practices in the region, in order to ensure that information on needed pedagogical interventions in the lowest-performing schools is reported in a timely fashion, and in order to guide

⁵⁵ This guarantees the nonduplication of software expenditures and complementarity between SAP (systems, applications, and products) and MEDUCA's business process management. SAP is a platform that the government procured for human resources and budget management.

training efforts and professional development for actors in the education system. Assistance will be provided to the National Educational Evaluation Office (DNEE) for designing and implementing the Comprehensive System to Improve Quality in Education (SIMECE) in line with Executive Decree 878 of 2016. The focus will be on implementation of the student achievement assessment⁵⁶ and the teacher performance evaluation. To promote an objective perspective, the teacher evaluations will include an external evaluation component based on a framework for effective teaching. The information generated by this component will be a key input for the integrated data system promoted in component 1. This component will finance: (i) design, implementation, and dissemination of student evaluations; and (ii) design and implementation of teacher evaluations and design of an exam to assess knowledge for entrance into the school system.⁵⁷ These activities also include the strengthening of the technical knowledge of MEDUCA's education evaluation team.

- 1.26 **Component 3. Comprehensive and continuous pedagogical support (US\$46.2 million).** The objective of this component is to implement comprehensive pedagogical support in schools, with a focus on the lowest-performing schools. This component will finance: (i) actions to provide pedagogical assistance and training in reading/writing and mathematics, *inter alia*; provision of instructional materials for teachers and students; and outfitting of school furnishings; and (ii) development and implementation of a pedagogical and managerial intervention targeted to schools found to be the lowest-performing in achievement evaluations conducted by SIMECE (see the monitoring and evaluation plan, [required electronic link #2](#), for a complete description of the method for selecting schools). The pedagogical support actions will be based on the Basic Learning Rights. The assistance to teachers will be provided by pedagogical coordinators, who will visit teachers at their schools, provide in-classroom feedback, and assist teachers throughout the school year.⁵⁸ This component will draw on information generated under component 2 in order to identify and scale the support for low-performing schools.
- 1.27 **Component 4. Equipping and maintenance of school infrastructure (US\$8.6 million).** The objective of this component is to ensure the functionality of the comprehensive schools and to support MEDUCA in ensuring proper maintenance of these schools. This component will finance: (i) the furnishing, outfitting, and equipping, as necessary, of the Bank-financed comprehensive schools;⁵⁹ (ii) the provision of necessary basic services,⁶⁰ including preventive maintenance, for the four comprehensive schools; and (iii) design of a

⁵⁶ The assessments of student achievement include census-based exams in reading/writing and mathematics for third-grade students, sample-based exams for sixth-grade students in these subject areas and in science in 2019 and 2021, and a census-based exam in 2022; a sample-based exam in reading/writing, mathematics, and science for 12th-grade students in 2022; Fourth Regional Comparative and Explanatory Study in 2019 (Table of Outputs and Costs).

⁵⁷ The program will support development of this exam, which will be administered by an entity independent of MEDUCA and the universities.

⁵⁸ See footnote 31 for a description of the pedagogical coordinators' supervisory tasks. Supervision will include random visits to participating schools by MEDUCA and the Bank.

⁵⁹ This includes the physical conditioning of, and furnishings and equipment for, classrooms, laboratories, computer rooms, cafeterias, and administrative areas, as well as furnishings for the boarding students. It will also include technical equipment.

⁶⁰ Basic services include a comprehensive transportation system for Gardi School and design of a community safety plan for Hijo del Carpintero School.

comprehensive maintenance plan for all schools in Panama. This component will generate inputs to scale the infrastructure needs as reflected in the infrastructure system promoted by component 1.

- 1.28 **Management, monitoring, evaluation, and auditing (US\$6 million).** Financing will be provided for the following activities: (i) provision of equipment for the execution unit; (ii) financial and concurrent audits (paragraph 3.7); (iii) the system for monitoring and evaluating the program's impact (paragraphs 3.8 and 3.9); and (iv) consulting assignments to promote the management of change in the proposed interventions.⁶¹

C. Key results indicators

- 1.29 The impact indicator related to improved learning outcomes will be measured using standardized census-based exams administered to third-grade students in language and mathematics. The baseline is a test developed in 2016. Also to be measured is the average among students ages 7 to 12 who fail the school year. The outcome indicators will measure: (i) improvements in the timely use of MEDUCA's management systems, e.g., the percentage of schools reporting enrollment data through SIACE in the first half of the year, and the number of students benefited by the program for pedagogical strengthening in mathematics and language at the primary level; and (ii) the number of students at comprehensive schools who are benefited by preventive maintenance plans. The impact, outcome, and output indicators are presented in detail in Annex II.
- 1.30 The ex ante economic analysis, which was performed using the cost-benefit methodology, yielded a positive net present value. The internal rate of return is 18.84%, which is above the 12% discount rate representing the opportunity cost of the program ([optional electronic link #1](#)). This rate should be regarded as on the low end, as it is based on conservative assumptions and the benefits do not reflect positive externalities commonly associated with this type of intervention.⁶² The sensitivity analysis confirmed that the results are robust to changes in key assumptions, such as the number of project beneficiaries and the actual progression of beneficiaries' income.

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing instruments

- 2.1 The financing instrument is a specific investment loan for US\$100 million charged to the Bank's Ordinary Capital, as shown in Table 1 (see [optional electronic link #1](#) and [optional electronic link #4](#) for itemized costs). The disbursement period is five years, estimated in view of the scope of the outputs in the multiyear execution plan ([required electronic link #1](#)) and recent experience on multilateral loan operations in the sector. The disbursement timetable is shown in Table 2.

⁶¹ The consulting assignment(s) will cut across all components. It is aimed at facilitating implementation and adoption of the changes proposed by the program. Activities include an internal and external communication plan, as well as dissemination workshops for officials, teachers, and other key actors in the sector.

⁶² The externalities, which have not been incorporated due to a lack of data, are typically related to lower rates of crime and drug abuse, greater life expectancy, better quality of life, and improved social protection.

Table 1: Total program cost (US\$ million)

Investment categories	TOTAL
Component 1: Digital transformation to strengthen management of the education system	13.5
Component 2: Support for the National Educational Evaluation System	25.7
Component 3: Comprehensive and continuous pedagogical support	46.2
Component 4: Equipping and maintenance of school infrastructure	8.6
Component subtotal	94.0
Management, monitoring, evaluation, and auditing	6.0
TOTAL	100.0

Table 2: Disbursement timetable (US\$ million)

Source of financing	Year 1	Year 2	Year 3	Year 4	Year 5	Total
IDB – Total	19.3	34.8	23.2	13.4	9.3	100
Percentage	19.3%	34.8%	23.2%	13.4%	9.3%	100%

B. Environmental and social risks

- 2.2 In accordance with the Bank's Environment and Safeguards Compliance Policy (OP-703), this program has been classified as a category "C" operation because it does not include infrastructure. Its social impact may be positive. Most program interventions will benefit all users of Panama's education sector. The actions under component 3 are aimed at improving the achievement of students at academically low-performing schools that predominantly serve poor people, thereby helping to improve equity over the medium term.

C. Fiduciary risks

- 2.3 The institutional assessment found that MEDUCA has the institutional capacity to assume its responsibilities as executing agency for the program. The Institutional Capacity Assessment System (ICAS), however, identified two fiduciary risks that should be taken into account: (i) MEDUCA's limited capacity in terms of organization, execution, and internal control (high level of risk); and (ii) delays in execution due to a lack of knowledge on how to use the new accounting and budgeting tool known as Technological Integration and Solutions of the Operational Management Model (medium level of risk). To address these risks, the following mitigation measures have been incorporated: (i) strengthening of MEDUCA's team with additional personnel in financial management and procurement, who will work exclusively on the program; and (ii) early training for the executing agency's personnel on how to use the tool and parameterize the new system in view of budgeting needs, expenditure commitments, and program payments.

D. Other project risks

- 2.4 **Development and implementation risks.** The analysis of program risks, conducted using the methodology of risk management for sovereign guaranteed projects, identified the following risks: (i) a lack of technical capacity to conduct performance evaluations (high); (ii) potential resistance from the teachers' union to performance evaluations and new methods of teaching and learning (medium); and (iii) limited fiscal room and insufficient budgetary allocations for the program (medium). To address these risks, the following mitigation measures have been incorporated: (i) strengthening of the technical capacity of the DNEE team at

MEDUCA in order to achieve installed capacity and ensure the sustainability of the performance evaluation system; (ii) participatory processes to raise awareness about scope of the program, through communication, coordination, and monitoring meetings with the administrative and pedagogical entities involved as well as relevant actors in the private sector and the board of education, in order to secure acceptance and commitment with regard to the proposed changes from a very early stage, under the framework of the agreements under Decree 878 that was accepted by the 17 unions.⁶³ These processes will be supported by continuous technical training during implementation; and (iii) a request that resources for this operation be allocated in the proposed general government budget. This measure, it should be noted, has already been taken for 2018.

- 2.5 **Sustainability.** The government has taken a number of actions to create the conditions needed to ensure that the proposed activities are sustainable (paragraph 1.13).⁶⁴ Along these lines, the program will support existing interventions that are deemed of high priority by the government. All such actions and the program objectives related to improved quality and efficiency were outlined and agreed upon in the National Commitment to Education signed in August 2017, establishing the sector's medium- and long-term goals.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

- 3.1 **Borrower and executing agency.** The borrower will be the Republic of Panama, and the Ministry of Education (MEDUCA) will be the program executing agency. MEDUCA will be responsible for program coordination, planning and monitoring, technical and administrative management, procurement, and financial management.
- 3.2 The project execution unit (PEU), which will work exclusively on the program, will be responsible for program execution. The PEU will have financial and administrative autonomy and will consist of personnel qualified to fulfill the program objectives. The PEU's personnel will consist of: (i) a general program coordinator; (ii) four technical coordinators (one per component) and four technical assistants; (iii) a planning, monitoring, and evaluation specialist; (iv) a financial specialist; (v) a procurement specialist; and (vi) a legal adviser.⁶⁵ PEU personnel will be supported by MEDUCA personnel in administrative, accounting/financial, procurement, and legal matters. PEU personnel will coordinate directly with MEDUCA's administrative, financial, institutional development, and control units for fiduciary management; and, for management of the program's four technical components, with national entities for early childhood and general primary education, educational assessment, curriculum, planning, information technology, the "Aprende al Máximo" program, bilingual intercultural education, maintenance, and other areas. In addition, consulting services on change management will be arranged to support the PEU in

⁶³ Actions along these lines are already being taken. Union members are participating in the design of the evaluations for the various actors in the education system. Also, the Bank's support is being used to invite union members to other countries so that they may observe evaluation experiences *in situ*.

⁶⁴ These include actions such as participation in Panama's Digital Agenda, the signing of Executive Decree 878 establishing SIMECE, adoption of the Basic Learning Rights, the hiring of 400 pedagogical coordinators already working on the ground, and creation of the National Preventive Maintenance Office.

⁶⁵ The structure of the PEU and the terms of reference for the main positions have been agreed upon. The space that will house the PEU is being set up, and qualified candidates are being identified.

implementing and monitoring an internal communication and awareness-raising plan in order to cultivate commitment to the program and contribute to its success. **Establishment of the PEU, including the hiring of the general coordinator, the technical coordinators, and the financial management and procurement specialists by MEDUCA, in accordance with the profiles and conditions previously agreed upon with the Bank, will be a condition precedent to the first disbursement,** in order to ensure that an appropriate team is in place to begin executing the operation.

- 3.3 **Interagency coordination.** Close coordination between MEDUCA and entities such as the National Authority for Governmental Innovation, the Ministry of the Economy and Finance, and the Office of the General Comptroller should be maintained for component 1. To ensure alignment with the digital agenda of the Panamanian government and avoid duplication of expenditures and efforts, an interagency technical committee has been created with the aforementioned entities in order to reach consensus and explore synergies with other digital initiatives being implemented nationwide. The technical committee will meet on a monthly basis.⁶⁶ Mechanisms for coordination between MEDUCA's national offices involved in implementing components 2 and 3 are also in place⁶⁷ at both the centralized and regional levels to ensure synergies between the evaluations (student and teacher) and the pedagogical interventions. The National Maintenance Office (component 4) is working with the National Educational Planning Office (component 1) to identify the inputs for the infrastructure management and maintenance system and data collection mechanisms.
- 3.4 **Program Operating Manual.** Program execution will be governed by an Operating Manual. This manual will set forth operating guidelines and procedures related to: (i) the structure of program execution and the executing agency's responsibilities; (ii) the responsibilities of other entities involved in implementation; (iii) procedures for planning and programming the activities to be financed; (iv) procedures and processes for technical, financial, and procurement management; (v) procedures for environmental and social management of the program; and (vi) operational instructions for activities to monitor and evaluate impact. **The entry into force of the program Operating Manual in accordance with the terms previously agreed upon with the Bank will be a condition precedent to the first disbursement,** in order to ensure that appropriate operational guidelines are in place for the program.
- 3.5 **Procurement.** The Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document GN-2349-9) and the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (document GN-2350-9) will apply. The training events will be financed by the per capita payment. In such cases, the relevance of the expenditure will be verified through annual audits. If the training events are provided through

⁶⁶ Minutes of first meeting, August 2017 ([optional electronic link #10](#)).

⁶⁷ These include regular meetings between the national offices for general primary education, educational evaluation, curriculum, professional development, and the "Aprende al Máximo" program, in addition to coordinated training events and a public relations group where information is shared on a daily basis.

mechanisms other than those that MEDUCA currently has in place,⁶⁸ an entity (company, university, nongovernmental organization, etc.) will be selected through a competitive procedure or, on an exceptional basis, through direct contracting. The type of review to be used will be established on a case-by-case basis in the procurement plan ([required electronic link #3](#)). The Procurement Plan Execution System (SEPA) or its successor will be used as the electronic system for monitoring procurement processes.

- 3.6 **Retroactive financing and recognition of expenditures.** The Bank may retroactively finance up to US\$20 million (20% of the loan amount) against the loan proceeds for eligible expenditures incurred by the borrower prior to the loan approval date for goods, nonconsulting services, and consulting services, provided requirements substantially similar to those established in the loan contract have been met. These expenditures may include books for classroom libraries, books and materials for teaching reading and writing to first-grade students, and technological equipment and furnishings for the PEU, among other items. Such expenditures must have been incurred on or after 26 July 2017, the project profile approval date, but in no case will expenditures be included that were incurred more than 18 months prior to the loan approval date.
- 3.7 **Auditing.** Financial statements for the program that have been audited by a firm of independent auditors acceptable to the Bank will be requested on an annual basis within 120 days after the end of each fiscal year or the date of the last disbursement. To verify the proper recording and reporting of per capita payments, a concurrent audit or an alternative mechanism will be requested.

B. Summary of arrangements for results monitoring

- 3.8 **Arrangements for monitoring.** To monitor the progress of the program, the executing agency and the Bank have agreed to closely monitor program execution by using the results matrix, the multiyear execution plan, the annual work plans ([required electronic link #1](#)), and the semiannual progress monitoring reports. To facilitate the monitoring effort, the Education Division (SCL/EDU), in cooperation with the Bank's Country Office in Panama, will periodically conduct field visits and meetings with the work team to discuss needs on the basis of the aforementioned reports. Upon program completion, a final report known as the project completion report (PCR) will be prepared. The monitoring and evaluation plan contains detailed information on the monitoring actions ([required electronic link #2](#)).
- 3.9 **Arrangements for the evaluation of results.** A quasi-experimental methodology will be used to evaluate the impact of interventions targeted to Panama's academically lowest-performing schools on the achievement of primary school students. The intervention will last three years. To identify these schools, a minimum standard of achievement will be defined based on the results of a standardized reading exam taken by all third-grade students in the school system. In all, some 200 schools will be included in the intervention. The quasi-experimental evaluation

⁶⁸ MEDUCA currently conducts training in two ways: (i) by using organizations (universities, nongovernmental organizations, etc.) that have been prequalified and certified, which are known as OCAs; and (ii) by training trainers, who then train teachers, principals, and others in the region or group of schools. Both types of training are paid on a per capita basis, at a rate of \$150 per person, which has been calculated as the average unit cost of training, including the facilitator, materials, per diem, and food. The per capita mechanism reimburses the government based on the number of people who are trained and their performance at the training events.

will compare the change in outcomes for these schools against other schools with similar characteristics ([required electronic link #2](#)).

Development Effectiveness Matrix		
Summary		
I. Corporate and Country Priorities		
1. IDB Development Objectives	Yes	
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality	
Country Development Results Indicators	-Countries in the region with improved learning outcomes according to PISA (%) -Teachers trained (#)*	
2. Country Development Objectives	Yes	
Country Strategy Results Matrix	GN-2838	Strengthen the education profile of the population.
Country Program Results Matrix	GN-2884	The intervention is included in the 2017 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability	Evaluable	
3. Evidence-based Assessment & Solution	8.6	
3.1 Program Diagnosis	3.0	
3.2 Proposed Interventions or Solutions	4.0	
3.3 Results Matrix Quality	1.6	
4. Ex ante Economic Analysis	8.5	
4.1 The program has an ERR/NPV, a Cost-Effectiveness Analysis or a General Economic Analysis	4.0	
4.2 Identified and Quantified Benefits	1.5	
4.3 Identified and Quantified Costs	1.5	
4.4 Reasonable Assumptions	0.0	
4.5 Sensitivity Analysis	1.5	
5. Monitoring and Evaluation	9.5	
5.1 Monitoring Mechanisms	2.0	
5.2 Evaluation Plan	7.5	
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood	Medium	
Identified risks have been rated for magnitude and likelihood	Yes	
Mitigation measures have been identified for major risks	Yes	
Mitigation measures have indicators for tracking their implementation	Yes	
Environmental & social risk classification	C	
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury. Procurement: Information System, Price Comparison.
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Gender Equality		
Labor		
Environment		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project	Yes	Technical Cooperation PN-T1150 is supporting: i) the identification of knowledge and competencies in the Fundamental Learning Rights, ii) the elaboration of materials for the inclusion of these Rights in the curriculum, iii) the logistics for the application of the first reading and writing standardized test, and iv) a diagnostics of the information systems to be strengthened.
The ex-post impact evaluation of the project will produce evidence to close knowledge gaps in the sector that were identified in the project document and/or in the evaluation plan	Yes	The proposed evaluation will use a Regression Discontinuity Design. As it is the first time that standardized tests will be applied and used to target pedagogical interventions, the evaluation will provide relevant information to identify the effectiveness of providing integral pedagogical support to poor performing schools. It will be the first time that this knowledge is generated in the country.

Note: (*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

The loan proposal describes the challenges faced by the country in relation to education quality. The document presents evidence on deficient student learning levels based on international standardized tests. As causal factors, it identifies the lack of: reliable information systems for management and decision making, a performance framework to promote quality among students and teachers, an integral pedagogical program, and adequate and well-maintained infrastructure. To resolve these challenges the project proposes the following components, which are in line with the causal factors identified: i) digital transformation, ii) national education evaluation system, iii) pedagogical support, and iv) school habilitation and maintenance. The document includes solid empirical evidence on the effectiveness of the interventions to be carried out.

The project's results matrix presents a clear vertical logic. However, some of the outcome and output indicators are not SMART or do not include a primary source of data; and some of the impact and outcome indicators do not include baseline or target information. The proposed impact indicators are related to student performance in standardized tests and the repetition rate.

The economic analysis annex is adequate. It presents a cost-benefit analysis that estimates project benefits related to the increase in future income levels for the children and the economy's productivity. However, some of the assumptions used are not clearly justified. The document includes sensitivity analyses with multiple scenarios.

The monitoring and evaluation plan is adequate. It proposes an impact evaluation using a Regression Discontinuity Design to assess the effectiveness of the pedagogical support component in student performance. The plan describes the identification strategy, carries out power analyses and specifies the information sources that will be used.

RESULTS MATRIX

Project objective:	The general objective of the program is to increase the learning achievement levels and skills of Panamanian public school students through improved quality and efficiency in the provision of educational services.
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EXPECTED IMPACT

Indicators	Unit of measure	Baseline	Baseline year	Final target	Final year	Means of verification	Comments
IMPACT: Increase in the learning achievement levels and skills of Panamanian students							
Students at inadequate achievement levels in third-grade reading	Percentage	TBD	2016	TBD	2022	2016 census-based reading exam and 2021 census-based reading exam Source: Comprehensive System to Improve Quality in Education (SIMECE) Responsible entity: Ministry of Education (MEDUCA)	
Students at inadequate achievement levels in third-grade mathematics	Percentage	TBD	2017	TBD	2022	2016 census-based mathematics exam and 2021 census-based mathematics exam Source: SIMECE Responsible entity: MEDUCA	
Average of students ages 7 to 12 who fail the school year	Percentage	12%	2013	9.5%	2022	MEDUCA statistical bulletin Source: MEDUCA Responsible entity: Executing agency	The number of students who fail the school year is the difference between the total number of students completing the school year and the number of passing students.

EXPECTED OUTCOMES

Indicators	Unit of measure	Baseline	Baseline year	Final target	Final year	Means of verification	Comments ²
OUTCOME #1: Education policy decisions are based on timely information, and efficiency gains are generated in the sector.							
MEDUCA dashboard with key sector performance indicators, completed	Dashboard	0	2017	1	2022	Semiannual progress monitoring report Responsible entity: PEU	
Schools reporting their full enrollment data through the School Management System (SIACE) by the end of the first quarter of the school year	Percentage	30	2017	60	2022	Independent consultant's technical report approved by MEDUCA's planning office Responsible entity: PEU	
Time to process teacher promotions through the Human Resources Administration System (SIAREH) (from request to receipt of payment)	# of months	24	2017	12	2022	Independent consultant's technical report approved by MEDUCA's planning office Responsible entity: PEU	
OUTCOME #2: Performance framework for quality in the education sector reports on learning outcomes and provides guidance for corrective actions.							
Instrument to target MEDUCA's interventions to improve quality in primary education	Instrument	0	2017	1	2018	Technical document of the instrument approved by the National Educational Evaluation Office (DNEE) Responsible entity: PEU	The targeting instrument is based on organized and analyzed information stemming from the quality tests taken by third- and sixth-grade students.
Action plan to improve quality in schools categorized as low-performing	Plan	0	2017	1	2019	Policy document approved by MEDUCA's planning office Responsible entity: PEU	The action plan describes MEDUCA's interventions to improve quality in selected schools with the targeting instrument.
OUTCOME #3: Comprehensive pedagogical support in schools improves the quality of educational services.							
Students enrolled in grades K-6 at schools receiving reinforcement programs in mathematics and language ¹	# of children	0	2017	300,000	2022	Semiannual progress monitoring report Responsible entity: PEU	"Reinforcement program" means that the students' school received pedagogical inputs and their teacher completed the training.
Gap between rates of inadequate outcomes in third-grade reading among students at schools categorized as low-performing and the national average.	Percentage	TBD	2016	TBD	2021	2016 census-based reading exam and 2021 census-based reading exam Source: SIMECE Responsible entity: MEDUCA	

¹ Corporate Results Framework indicator: Number of students benefited by education projects.

Indicators	Unit of measure	Baseline	Baseline year	Final target	Final year	Means of verification	Comments ²
Gap between rates of inadequate outcomes in third-grade mathematics among students at schools categorized as low-performing and the national average.	Percentage	TBD	2017	TBD	2021	2016 census-based mathematics exam and 2021 census-based mathematics exam Source: SIMECE Responsible entity: MEDUCA	
OUTCOME #4: Students attend schools that are properly maintained and have school inputs.							
Students enrolled at schools receiving support for development of preventive maintenance plans	# of students	0	2017	2,000	2022	Semiannual progress monitoring report Responsible entity: PEU	

OUTPUTS

Outputs	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
Component #1: Digital transformation to strengthen management of the education system										
SIACE implemented and functioning	System	0	0	0	1	0	0	1	Semiannual progress monitoring report Responsible entity: PEU	"Implemented and functioning" means that the schools use SIACE to record their enrollment data.
SIAREH implemented and adapted to SAP	System	0	0	0	1	0	0	1	Semiannual progress monitoring report Responsible entity: PEU	"Implemented and functioning" means that MEDUCA's human resources office manages payroll through SIAREH.
Reengineering of processes of the system for managing the school-based education projects and the annual work plan, completed	Report	0	1	0	0	0	0	1	Final consultant's report on reengineering of processes approved by MEDUCA's planning office Responsible entity: PEU	
System for managing and maintaining educational infrastructure, implemented and functioning	System	0	0	1	0	0	0	1	Semiannual progress monitoring report Responsible entity: PEU	"Implemented and functioning" means that the schools are using the system to update their infrastructure needs.
Educational statistics system implemented	System	0	0	2	0	0	0	2	Semiannual progress monitoring report Responsible entity: PEU	"Implemented and functioning" means that the statistics system has integrated the data from SIACE, SIAREH, and the infrastructure management and maintenance system into its business intelligence software.
Bidding processes for technological infrastructure equipment and software completed	Bidding processes	0	1	1	0	0	0	2	Semiannual progress monitoring report Responsible entity: PEU	

Outputs	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
Bidding processes for technical auditing of system quality and development	Bidding processes	0	2	0	0	0	0	2	Semiannual progress monitoring report Responsible entity: PEU	
Component #2: Support for the National Educational Evaluation System										
Student evaluations implemented	Evaluations	0	2	4	2	3	4	15	Semiannual progress monitoring report Responsible entity: PEU	Includes reading comprehension and mathematics exams for grades 3, 6, and 12.
Teacher evaluations implemented	Evaluations	0	0	1	1	1	1	4	Semiannual progress monitoring report Responsible entity: PEU	Includes evaluations of teachers at primary, lower secondary, and upper secondary schools.
Component #3: Comprehensive and continuous pedagogical support										
Primary school classrooms with teaching materials and furnishings delivered	# of classrooms	0	25,000	7,500	2,500	2,500	2,500	40,000	Semiannual progress monitoring report, confirming receipt of materials and furnishings in classrooms. Responsible entity: PEU	"Delivered" means that the school principal has confirmed receipt of libraries, mathematics kits, and furnishings.
Personnel trained in professional development coursework ²	# of teachers	0	24,020	32,020	25,520	13,520	8,520	103,600	Semiannual progress monitoring report, confirming list of all teachers trained. Responsible entity: PEU	Training events in reading comprehension and mathematical logical reasoning will be held from 2018 to 2022 and provided to primary school teachers, pedagogical coordinators, and personnel from MEDUCA central team. This includes teachers and school administrators.
Primary schools categorized as low-performing that receive interventions	# of schools	0	200	200	200	0	0	200	Semiannual progress monitoring report Responsible entity: PEU	Not cumulative. Intervention includes assistance to teachers and administrators, pedagogical inputs, and a certificate course for school principals.

² Corporate Results Framework indicator: Number of teachers trained.

Outputs	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
Component #4: Equipping and maintenance of school infrastructure										
Schools equipped	# of schools	0	0	2	0	0	0	2	Semiannual progress monitoring report Responsible entity: PEU	Equipment and furnishings will be procured for the Hijo del Carpintero and Gardi schools, built as part of loan operation PN-L1072.
Schools provided with basic services and preventive maintenance	# of schools	0	2	4	4	4	4	4	Semiannual progress monitoring report Responsible entity: PEU	Not cumulative. "Provided with" means that the schools receive a preventive maintenance service; other basic services for the four comprehensive schools financed by loan operations PN-L1064 and PN-L1072.
Maintenance plan for school infrastructure designed	Maintenance plan	0	0	1	0	0	0	1		The strategy will be developed in 2018, and the maintenance manual will be prepared and printed in 2019.
Management, monitoring, evaluation, and auditing										
PEU equipped and furnished	Provision of equipment	0	1	0	0	0	0	1	Semiannual progress monitoring report Responsible entity: PEU	Cost of equipping the PEU
External audit of the program completed	Auditing	0	0	1	1	1	1	4	Semiannual progress monitoring report Responsible entity: PEU	External audit of the program
Impact evaluation completed	Report	0	0	0	0	0	1	1	Semiannual progress monitoring report Responsible entity: PEU	The evaluation will focus on outcomes of interventions in low-performing schools.

Outputs	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
Change management plan implemented	Consulting assignment	0	1	1	1	1	0	1	Semiannual progress monitoring report Responsible entity: PEU	Not communicative. The program will provide technical assistance to the PEU for review, design, preparation, implementation, and post-implementation of a communication and awareness-raising strategy for all components, including identification of audiences. Support for IT governance for implementation of component 1.

FIDUCIARY AGREEMENTS AND REQUIREMENTS

Country: Panama
Project number: PN-L1143
Project name: Program to Improve Efficiency and Quality in the Education Sector
Executing agency: Ministry of Education (MEDUCA)
Prepared by: David Ochoa and Ezequiel Cambiasso (FMP/CPN)

I. FIDUCIARY CONTEXT OF THE EXECUTING AGENCY

- 1.1 The project will be executed by the Ministry of Education (MEDUCA), acting through a project execution unit (PEU). The PEU's personnel will consist of (i) a general program coordinator; (ii) four technical coordinators (one per component); (iii) a planning, monitoring, and evaluation specialist; (iv) a financial specialist; (v) a procurement specialist; and (vi) a legal adviser. PEU personnel will be supported by MEDUCA's existing personnel in administrative, accounting/financial, procurement, and legal matters. PEU personnel will coordinate directly with MEDUCA's administrative, financial, institutional development, and control units for fiduciary management, and for management of the program's four technical components, with national entities for early childhood and general primary education, educational assessment, curriculum, planning, information technology, the "Aprende al Máximo" program, bilingual intercultural education, maintenance, and other areas.

II. FIDUCIARY RISK ASSESSMENT AND MITIGATION ACTIONS

- 2.1 The institutional assessment found that MEDUCA has the institutional capacity to assume its responsibilities as executing agency. The Institutional Capacity Assessment System (ICAS), however, found two fiduciary risks that should be taken into account: (i) MEDUCA's limited capacity in terms of organization, execution, and internal control (high level of risk); and (ii) delays in execution due to a lack of knowledge on how to use the new accounting and budgeting tool known as Technological Integration and Solutions of the Operational Management Model (medium level of risk). To address these risks, the following mitigation measures have been incorporated: (i) strengthening of MEDUCA's team with additional personnel in financial management and procurement, who will work exclusively on the program;¹ and (ii) early training for the executing agency's personnel on how to use the tool and set parameters for the new system in view of budgeting needs, expenditure commitments, and program payments.

¹ This support will be specifically aimed at: (i) reducing processing times for financial transactions and the rendering of accounts for the program, (ii) optimizing procurement processes, and (iii) establishing execution targets and control mechanisms.

III. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF CONTRACTS

- 3.1 The agreements and requirements to be considered in the special provisions are as follows:
- a. The Financial Management Policy for IDB-financed Projects (OP-273-6) will apply, and, in accordance with this policy: (i) program financial statements audited by a firm of independent auditors acceptable to the Bank will be requested on an annual basis and must be submitted to the Bank within 120 days after the end of each fiscal period or after the date of the last disbursement; (ii) advances will be requested for a financial plan of up to 180 days; (iii) a subsequent advance may be requested when 80% of the cumulative proceeds pending justification have been substantiated; and (iv) to verify proper recording and reporting of per capita payments, a concurrent audit or another alternative mechanism will be requested.

IV. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

- 4.1 The fiduciary agreements and requirements for procurement establish the provisions applicable to all procurement processes for the program.

A. Procurement execution

- 4.2 The Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document GN-2349-9) and the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (document GN-2350-9) will apply. The training events will be financed by the per capita payment, with verification that the expenditure is appropriate. If the training events are provided through mechanisms other than those that MEDUCA currently has in place, an entity (company, university, nongovernmental organization, etc.) will be selected through a competitive procedure or, on an exceptional basis, through direct contracting.
- a. **Procurement of works, goods, and nonconsulting services.** International competitive bidding (ICB) processes will use the standard bidding documents issued by the Bank. Procurement processes subject to national competitive bidding (NCB) and shopping will use the models specified for this operation by the Bank. The program sector specialist will be responsible for reviewing the technical specifications of procurement items during the preparation of selection processes.
 - b. **Selection and contracting of consultants.** Contracts for consulting services generated under the program will use the standard request for proposals issued by the Bank. The program sector specialist will be responsible for reviewing the terms of reference for the contracting of consulting services.
 - c. **Selection of individual consultants.** Individual consultants will be selected in view of their qualifications to perform the work, on the basis of a comparison of the qualifications of at least three candidates.
 - d. **Use of the country procurement system.** The Bank's Board of Executive Directors approved (document GN-2538-11) the use of framework agreement subsystems up to the NCB threshold of US\$250,000, as well as

the mechanism to be used for minor procurements up to US\$50,000, which may change as the Bank approves greater levels of use.

- e. **Retroactive financing and recognition of expenditures.** The Bank may retroactively finance up to US\$20 million (20% of the loan amount) against the loan proceeds for eligible expenditures incurred by the borrower prior to the loan approval date for goods, nonconsulting services, and consulting services, provided requirements substantially similar to those established in the loan contract have been met. Such expenditures must have been incurred on or after 26 July 2017, the project profile approval date, but in no case will expenditures be included that have been incurred more than 18 months prior to the loan approval date. These expenditures may include books for classroom libraries, books and materials for teaching reading and writing to first-grade students, and technological equipment and furniture for the PEU, among other items.
- f. **National preference.** Not applicable.
- g. **Procurement plan.** SEPA or its successor system will be used as the electronic system for monitoring procurement processes.

B. Thresholds (US\$)

Works			Goods			Consulting services	
ICB	NCB/ Shopping	Shopping for complex works	ICB	NCB/ Shopping	Shopping for complex goods	International	National
Greater than or equal to \$3,000,000	Greater than \$250,000 and less than \$3,000,000	Less than \$250,000	Greater than or equal to \$250,000	Greater than \$50,000 and less than \$250,000	Less than \$50,000	Greater than \$200,000	Less than or equal to \$200,000

C. Main procurement items

Activity	Procurement type	Estimated amount (US\$)
Nonconsulting services		
Infrastructure maintenance at four comprehensive schools	NCB	2,300,000
Goods		
Procurement of hands-on materials for mathematics	ICB	8,000,000
Procurement of furniture and equipment for the Hijo del Carpintero and Gardí comprehensive schools	ICB	4,800,000
Consulting services		
Consulting firm to administer the sample- and census-based exams in language, mathematics, and science for grades 3, 6, and 12, including validation and administration	QCBS	12,000,000
Consulting firm for implementation and assistance to teachers and administrators of low-performing schools	QCBS	12,168,000
Training events		
Per capita payment for training events	Transfers	30,400,000

D. Procurement supervision

- 4.3 All ICB processes and direct contracting for goods, works, and nonconsulting services will be subject to prior review. Processes to select consulting firms for more than US\$200,000 and single-source selection processes will be subject to

prior review. For all other contracts, the type of review will be established on a case-by-case basis in the procurement plan.

E. Special provisions

4.4 None anticipated.

F. Records and files

4.5 The executing agency will maintain updated records and files organized in such a manner that they can be reviewed by the Bank in accordance with the following guidelines:

- a. The filing system for procurement-related documents will consist of one single file or folder that is easily differentiated from processes financed by the local counterpart or by non-program resources.
- b. Documents will be maintained and kept properly organized, collated, and numbered in such a manner that they may be easily located and identified, and they will be available at all times for the Bank to review and for auditing purposes.

V. FINANCIAL MANAGEMENT

A. Programming and budget

5.1 The Ministry of the Economy and Finance (MEF) is responsible for budget preparation and control. It will submit a proposed budget to the National Assembly by 31 July of each year, and the National Assembly is responsible for approving the budget and any budgetary increase. The budget is annual and includes all public sector investments, revenues, and outlays. The budget law for 2018 created the SINIP codes and lines for Bank financing and the local contribution. The entire budget will initially be requested as a local contribution; once the loan is approved, each executing entity will request a change in the source of financing.

B. Accounting and information systems

5.2 In order to modernize the government's work, Panama's national government, acting through the MEF and the National Accounting Office (DNC), is in the process of implementing the accounting and budgeting system known as ISTMO (Technological Integration and Solutions of the Operational Management Model). The PEU will engage with the DNC to obtain the respective users, training, and parameterization of the system in order to manage the budget, commit expenditures, and make payments through the system. As a new system, it has not been evaluated² for use in Bank-financed projects, and use of a parallel system is required.

5.3 Panama is in the process of transitioning to the International Public Sector Accounting Standards (IPSAS). Accounting activity is governed by the rules issued by the Office of the General Comptroller (CGR), which in some cases are not aligned with the IPSAS.

² ISTMO will be evaluated in 2017 to determine the status of its implementation.

C. Disbursements and cash flow

- 5.4 A law establishing use of a consolidated treasury account in Panama was passed in the latter half of 2013, and implementation of this law began in late 2014 with the MEF's accounts and in 2015 at some ministries. There are plans to evaluate the consolidated account and its relevance in implementing ISTMO, in order to determine whether it can be used for Bank-financed projects.
- 5.5 The Bank will transfer the resources to an exclusive account that the executing agency will open for the program at a financial institution. Disbursements will be made in the form of advances³ to cover liquidity needs, in accordance with the financial plan, for a period of up to 180 days, and a subsequent advance payment may be requested when 80% of the cumulative proceeds pending justification have been substantiated. In addition, payment reimbursements or direct payments to suppliers may be made as well.
- 5.6 The initial financial plan indicates that US\$19.3 million in disbursements from the Bank will be needed in 2018.

D. Internal control and internal auditing

- 5.7 As a result of the prior control exercised by the CGR, the internal control and internal auditing systems for government entities are weak because they rely on the CGR's control efforts, rather than having effective processes and controls. These systems, therefore, are not deemed adequate for the control efforts needed for these projects.

E. External control and reporting

- 5.8 The CGR has focused its efforts on prior control over the deployment of State assets, as its auditing capacity is weak. Moreover, as a result of its participation in administrative processes through prior control, it lacks the independence needed to conduct audits and, therefore, lacks the capacity to carry out external control of the program.
- 5.9 Program financial statements audited by a firm of independent auditors acceptable to the Bank will be requested on an annual basis within 120 days after the end of each fiscal year or the date of the last disbursement.

F. Financial supervision plan

- 5.10 Financial supervision will focus on the auditors' reports mentioned in the previous paragraph, and supporting documentation for disbursements will be reviewed on an ex post basis by auditors when they conduct the audits or during any financial inspection visits that are conducted.

³ In accordance with the Financial Management Policy for IDB-financed Projects (OP-273-6).

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/17

Panama. Loan ____/OC-PN to the Republic of Panama
Program to Improve Efficiency and Quality
in the Education Sector

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republic of Panama, as Borrower, for the purpose of granting it a financing to cooperate in the execution of the Program to Improve Efficiency and Quality in the Education Sector. Such financing will be for the amount of up to US\$100,000,000 from the resources of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on __ _____ 2017)