Board of Executive Directors

For consideration

On or after 10 July 2018

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26 June 2018
Original: Spanish
Public
Simultaneous Disclosure

To:	The Executive Directors
From:	The Secretary
Subject:	Peru. Proposal for a loan for the “Program for the Improvement of the Quality and Relevance of University and Technical Higher Education Services at the National Level”
Basic Information:	Loan type .....Specific Investment Operation (ESP) Borrower ..... Republic of Peru Amount ..... up to US$75,000,000 Source .....Ordinary Capital
Inquiries to:	Pablo Zoido (extension 7301) or David Rosas (extension 2559)
Remarks:	This operation is not included in Annex III of document GN-2915, "2018 Operational Program Report", approved by the Board of Executive Directors on 18 April 2018. Therefore, the operation does not qualify for approval by Simplified Procedure.
Reference:	GN-1838-1(7/94), DR-398-17(1/15), GN-2915(2/18)

PUBLIC
SIMULTANEOUS DISCLOSURE

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PERU

PROGRAM FOR THE IMPROVEMENT OF THE QUALITY AND RELEVANCE OF UNIVERSITY AND TECHNICAL HIGHER EDUCATION SERVICES AT THE NATIONAL LEVEL

(PE-L1227)

LOAN PROPOSAL

This document was prepared by the project team consisting of: Pablo Zoido, Project Team Leader (SCL/EDU); David Rosas, Alternate Project Team Leader (SCL/LMK); Carolina Méndez, Sabine Rieble-Aubourg, María Fernanda Prada, and Rafael Contreras (SCL/EDU); Carlos Tovar (SCL/LMK); Juan Carlos Navarro (IFD/CTI); Icíar Hidalgo (INE/INE); Gabriele del Monte (VPC/FMP); Andrés Suárez (VPC/FMP); and Betina Hennig (LEG/SGO).

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REQUIRED

1. Multiyear Execution Plan and Annual Work Plan
2. Monitoring and Evaluation Plan
3. Procurement Plan

OPTIONAL

1. Project economic analysis
2. Institutional analysis and proposed structure for the execution unit
3. Bibliographical references
4. Grant funds
5. Responsibilities of the Government Compliance and Social Innovation Office
6. Safeguard Policy Filter (SPF) and Safeguard Screening Form (SSF) for classification of projects

ABBREVIATIONS

CGR	Office of the Comptroller General of the Republic
MEF	Ministry of Economy and Finance
MEP	Monitoring and Evaluation Plan
MINEDU	Ministry of Education
MTPE	Ministry of Labor and Job Promotion
NQF	National qualifications framework
ProCalidad	Higher Education Quality Improvement Project
SIAF	Integrated Financial Administration System
SCC	Sector competency council
SUNEDU	National Superintendency of University Higher Education

PROJECT SUMMARY
PERU
PROGRAM FOR THE IMPROVEMENT OF THE QUALITY AND RELEVANCE OF UNIVERSITY AND TECHNICAL HIGHER EDUCATION SERVICES AT THE NATIONAL LEVEL
(PE-L1227)

<table>
<tr><th colspan="6">Financial Terms and Conditions</th></tr>
<tr><td colspan="3" rowspan="2">Borrower: Republic of Peru</td><td colspan="2">Flexible Financing Facility[a]</td><td></td></tr>
<tr><td colspan="2">Amortization period:</td><td>9 years</td></tr>
<tr><td colspan="3" rowspan="2">Executing agency: Ministry of Education (MINEDU)</td><td colspan="2">Disbursement period:</td><td>5 years</td></tr>
<tr><td colspan="2">Grace period:</td><td>6 years[b]</td></tr>
<tr><td>Source</td><td>Amount (US$)</td><td>%</td><td colspan="2">Interest rate:</td><td>LIBOR-based</td></tr>
<tr><td>IDB (Ordinary Capital):</td><td>75,000,000</td><td>37</td><td colspan="2">Credit fee:</td><td>[c]</td></tr>
<tr><td rowspan="2">Local:</td><td rowspan="2">125,000,000</td><td rowspan="2">63</td><td colspan="2">Inspection and supervision fee:</td><td>[c]</td></tr>
<tr><td colspan="2">Weighted average life:</td><td>6.86 years</td></tr>
<tr><td>Total:</td><td>200,000,000</td><td>100</td><td colspan="2">Approval currency:</td><td>U.S. dollars from the Bank’s Ordinary Capital</td></tr>
<tr><th colspan="6">Project at a Glance</th></tr>
<tr><td colspan="6">Program objective/description: The program aims to improve productivity and entry into the formal labor market for Peruvian students in higher education institutions by strengthening the quality and relevance of educational services. The program’s overall objective is for Peru’s university and technical higher education students to have access to institutions that provide suitable, relevant, and quality educational services nationwide. The specific objectives are: (i) to improve knowledge and information to guide policy decisions aimed at ensuring the quality and relevance of higher education; (ii) to strengthen the institutional framework of public university and technical higher education in order to provide relevant, quality educational services; and (iii) to ensure that public higher education institutions have suitable infrastructure and equipment.</td></tr>
<tr><td colspan="6">Special contractual conditions precedent to the first loan disbursement: As a contractual condition precedent to the first disbursement, the executing agency will submit, to the Bank’s satisfaction, evidence of fulfillment of the following conditions: (i) MINEDU execution unit 118 will have its key staff, with the requirements agreed upon with the Bank: a general coordinator; an administrative chief; a planning and budget specialist; a financial accounting specialist; and a procurement specialist; and (ii) evidence will be submitted of the approval of the program’s Operations Manual, with the Bank’s prior no objection (paragraph 3.5).</td></tr>
<tr><td colspan="6">Exceptions to Bank policies: None.</td></tr>
<tr><th colspan="6">Strategic Alignment</th></tr>
<tr><td>Challenges[d]:</td><td>SI</td><td>☑</td><td>PI</td><td>☑</td><td>EI</td><td>☐</td></tr>
<tr><td>Crosscutting topics[e]:</td><td>GD</td><td>☐</td><td>CC</td><td>☐</td><td>IC</td><td>☐</td></tr>
</table>

[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 weighing such requests.

[b] Under the flexible repayment options of the Flexible Financing Facility, changes in the grace period are permitted provided that they do not entail any extension of the original weighted average life of the loan and 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 the applicable policies.

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

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

I. DESCRIPTION AND RESULTS MONITORING

A. Background, problem addressed, and rationale

1.1 In the past decade, Peru has grown at an annual rate of more than 5%. That growth has been accompanied by significant social progress. The poverty rate went from 34% in 2009 to 22% in 2015. Moving forward, Peru needs to boost its economic productivity, which includes increasing its labor productivity.[1] In fact, Peru's labor productivity is relatively low, at 23% of the productivity in the United States.[2] Regarding the workforce, 70% of companies have problems filling job vacancies (the regional average is 38%),[3] and 78% of the workforce is informal (the regional average is 55%).[4]

1.2 Low labor productivity is linked directly to limitations in higher education.[5] Neither technical institutes nor universities have been able to get people to continue developing their skills.[6] Peru has also been unable to eliminate gaps in basic education.[7] This is the case despite Peru's increase in higher education coverage, from 32% in 2004 to 42% in 2014.[8] The main reasons for this are the poor quality and relevance of education. This poor quality is related to an increase in educational offerings and weaknesses in quality assurance.[9] Therefore, an estimated 79% of the universities established between 1995 and 2010 are of poor quality.[10] For example, only 8% of the universities have ISO certification and only 15% have some sort of international certification.[11] Moreover, currently only two public university higher education institutions and no public technical higher education institutions meet basic quality conditions.[12]

1.3 The low relevance is reflected in the limited alignment between educational offerings and the production sector's needs. In addition, educational offerings are not coordinated with the needs of local economies. There are regions with a high concentration of institutions and programs, and others where the capacity available

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1 IDB (2017).

2 Conference Board (2016).

3 Manpower (2015).

4 Labor Markets and Social Security Information System.

5 This document is partly based on a public borrowing project prepared by the Ministry of Education's (MINEDU) project preparation unit, within the framework of the National Multiyear Programming and Investment Management System (Invierte Perú), with support from Tras100d.

6 Chacaltana et al. (2015).

7 As evidence of the poor quality of basic education in Peru: among the 69 countries evaluated by the Programme for International Student Assessment in 2015, Peru ranked 61st in math, 62nd in reading, and 63rd in science.

8 *Centro de Información para la Mejora de los Aprendizajes*. Link.

9 The deregulation of educational offerings, which began in 1995 (Law 26439), improved access to higher education, promoting private sector participation. As far as technical higher education, the number of institutes increased from 421 in 1990 to 977 in 2014. Nongovernmental institutions dominated this growth, increasing from 33% to 49% of the total.

10 Yamada, Lavado, and Martínez (2015).

11 *Encuesta Nacional a Egresados Universitarios y Universidades 2014*.

12 Conditions defined by MINEDU within the framework of the licensing process for technical higher education offerings.

is underutilized. For example, among universities, 50% of private institutions and 20% of public institutions are located in Lima; for technical institutes, the situation is similar.[13]

1.4 The low quality and relevance can be seen in various indicators. No Peruvian university is among the top 500 in the world,[14] and higher education returns are low.[15] For technical higher education, the average net return is 13%, but for the lowest decile, the return is negative (-24%). For university higher education, the average net return is 63%, while for the lowest decile, it is 12%.[16] This is also reflected in the lack of preparedness for the job: only 4 of 10 technical higher education graduates and 7 of 10 university higher education graduates are employed in the fields they were trained for.[17]

1.5 **Having a trained workforce and mechanisms to continuously update their skills is essential for productivity gains.**[18] Skills promote economic growth and well-being,[19] and in order to acquire them, what matters is not only the educational system but also the availability of continuing education.[20] Countries like Germany, New Zealand, and South Korea show the importance of higher education and job training. Despite their differences, these countries share certain criteria for success that can be grouped into four pillars:[21]

a. **Pillar 1: strategic vision, effective governance, and priority in financing.** In these countries, higher education is part of the main policies aimed at increasing productivity and competitiveness. Their governance structure promotes the participation of the main stakeholders in training (government, companies, etc.) based on common objectives. In addition, they results-based allocation of resources.

b. **Pillar 2: information gathering for curriculum design and decision-making.** These countries combine various methods to capture information about the production sector's current and future skills requirements, to promote the preparation and updating of relevant curricula. They also gather information for decision-making.[22] They have sector competency councils (SCCs), led by the production sector and financed with public funds, that: (i) gather and analyze information about their sector and its skills needs; (ii) establish occupational standards; and (iii) work with training providers to jointly develop qualifications and curricula.

c. **Pillar 3: flexibility and portability of learning.** These countries have modular, flexible educational offerings that facilitate portability and lifelong

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13 Ministry of Labor and Job Promotion (MTPE) (2014).

14 Scimago Institutions Rankings, 2017.

15 Montenegro and Patrinos (2014): the average return for higher education in Latin America and the Caribbean was 16%, and in Peru it was 10% in 2012.

16 Yamada, Lavado, and Oviedo (2014).

17 Central Reserve Bank (2013).

18 IDB (2016): Defining skills such as the capacity of persons to successfully accomplish a series of tasks.

19 Hanushek, Woessmann, and Zhang (2011).

20 Bassi, M.; G. Rucci; and S. Urzúa (2014).

21 Based on IDB (2016); Amaral et al. (2016); and González and Rosas (2016).

22 Gonzalez and Rucci (2016).

learning. They have credit transfer subsystems, such as a national qualifications framework (NQF), which gather information to achieve equivalencies between the knowledge acquired at all learning levels.

d. **Pillar 4: external evaluation processes for quality and relevance.** These countries have standardized external evaluation processes for higher education outcomes, as well as licensing and accreditation of institutions and programs. They also have financing mechanisms such as grant funds, which promote transparency in the use of resources and provide incentives for quality. In addition, these countries conduct learning evaluations for entry into higher education and/or graduation (standardized tests) that help all stakeholders (students, providers, etc.) make informed decisions. They also support the financing of higher education through mechanisms like scholarships and loans.[23]

1.6 **The Government of Peru has prioritized higher education reform.**[24] The Government of Peru decided to continue the higher education reform that the previous administration had started. The University Act (Law 30220) and the Higher Education Institutes and Schools Act (Law 30512), approved in 2014 and 2016, respectively, include provisions based on the four pillars mentioned above. For example, they reflect the Government of Peru's strategic vision and the priority it places on higher education (pillar 1). In addition, they promote a closer relationship between higher education institutions and the production sector, and the gathering of relevant information for decision-making by individuals and the government (pillar 2). These laws also seek to establish routes and mechanisms to promote better coordination between programs, and to make it possible to grant transfer credit for technical coursework and continue studying at the university level (pillar 3). In addition, the reform includes establishing independent bodies for licensing and accreditation of higher education institutions, programs and studies, and programs, as well as establishing the basic quality conditions that higher education institutions must meet (pillar 4). One of the focal points of MINEDU's policy to promote the quality and relevance of higher education is providing support to public higher education institutions.[25] As a result of having insufficient investment for decades and lacking mechanisms to ensure quality and relevance, public higher education institutions have major limitations (paragraph 1.10) that make it difficult for them to meet the basic conditions of quality processes.[26]

1.7 Peru has been making progress in implementing these laws, which have reorganized the governance of higher education.[27] The financing of public higher

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[23] These tests are an integral part of quality assurance mechanisms for higher education for countries in the region, such as Colombia: Organization for Economic Cooperation and Development/World Bank (2012).

[24] The government has prioritized education: the annual budget for the sector increased from 2.8% of GDP in 2013 to 3.8% in 2017.

[25] Supreme Decree 016-2015-MINEDU, which identifies MINEDU's main policy guidelines for higher education. This decree also reflects the president's commitment to the reform of technical and university higher education. Link.

[26] Of the universities with an ISO quality certification or an international certification, only 10% and 11%, respectively, are public. *Encuesta Nacional a Egresados y Universidades 2014*. MINEDU also estimates that none of the public technical higher education institutions meets the basic conditions for licensing.

[27] Governance of the higher education system.

education remains in the hands of the public sector. For pillar 2, the creation in 2015 of the portal "Ponte en Carrera" was a step forward in gathering information about higher education results. For pillar 4, the National Superintendency of University Higher Education (SUNEDU), for licensing university higher education institutions, was established in 2014,[28] while the licensing process for technical higher education institutions is starting. The National System for Evaluation, Accreditation, and Certification of Education Quality is being reformed. The Higher Education Quality Improvement Project (ProCalidad),[29] which supports the development of quality assurance and knowledge gathering mechanisms, is being executed and has successfully promoted[30] the quality of public higher education institutions through grant funds.

1.8 **Despite this progress, implementation of the reform still faces challenges.**[31] MINEDU lacks sufficient information to develop suitable policies aimed at improving the quality and relevance of higher education (pillars 2 and 4) and facilitating continuing education (pillar 3). In addition, financing of public higher education institutions needs to be prioritized (pillar 1). The challenges are as follows:

1.9 **The lack of timely, relevant, and reliable information.** As an example, there is no recent census on the infrastructure situation in public university higher education institutions. A knowledge and skills test to make it easier for higher education stakeholders to make informed decisions is not available either.[32] In addition, there are not enough mechanisms to gather information about the production sector's skills needs, both as a sector and regionally, and to promote the sector's involvement in technical higher education. No SCCs exist as such. Only two pilot projects exist in the agricultural exports and mining sectors, developed with IDB support.[33] There is no NQF to facilitate coordination between technical and university higher education and the portability of learning.[34]

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28 Link.

29 ProCalidad is being financed with a World Bank loan that ends in 2018. Link.

30 From the initial target of 155 projects, ProCalidad financed approximately 200 projects. Therefore, the demand for grant funds exists and there was a previous similar experience. Link.

31 This information is from the document "*Mejora de la calidad y pertinencia de los servicios de educación superior universitaria y tecnológica a nivel nacional,*" prepared by the project preparation unit with support from Alfonso Tolmos and the team of the Tras100d consulting firm, using data from the National Survey of University Graduates and Universities 2014; the 2010 University Census, the 2016 School Census, the 2016 Occupational Survey, the National Survey of University Graduates, and surveys designed for program preparation. This document is available from the Investment Bank of the Ministry of Economy and Finance (codes 2383140 y 2382580).

32 These types of tests, which contribute to designing quality assurance mechanisms, are becoming increasingly common in countries that are leaders in higher education. Colombia and Chile have been using these tests for decades and have been adapting them to increase their relevance. Organization for Economic Cooperation and Development (2009).

33 These pilot projects have tested an alternative model to the MTPE's, whose technical sector committees develop competency standards but are not led by the production sector. The pilot projects have moved toward an SCC model with interaction between the public and private sectors, under the leadership of the production sector.

34 McCarthy & Musset (2016).

1.10 **The weak institutional management capacity of public higher education institutions.** Managing material and human resources[35] is an essential part of leadership in educational institutions.[36] For higher education institutions, this management capacity is fundamental to be able to accumulate human capital.[37] Three institutional management areas are integral for these institutions: (i) administrative; (ii) academic; and (iii) research and innovation.[38] Public higher education institutions have limitations in these areas, as can be seen in the following examples:

a. **Institutional management of public university higher education:** (i) administrative management. Public universities successfully execute less than 35% of their investment budgets. One of the factors underlying this situation is the lack of qualified staff to perform administrative duties such as prioritizing the actions to be taken and programming the budget with a strategic vision; (ii) academic management. Less than 0.05% of the total budgets executed by public universities from 2013 to 2015 was spent improving the quality and relevance of curricula. In addition, a third of the faculty has not received any teacher training. As a result, less than 30% of public university students rank the teaching area of their universities as good (compared to 44% for private universities). As far as relevance, the programs are disconnected from regional production needs:[39] 43% of university students think that college training does not contribute to solving their region's problems; and (iii) research management. Public universities only execute 25% of their research budgets; only 30% of their researchers have participated in research groups or scientific events; and only 25% of their research centers have connections with a company.[40]

b. **Institutional management of public technical higher education:** (i) administrative management. Technical higher education institutions also lack qualified staff to perform administrative duties. Only 37% of the administrative staff has been trained in the past two years. In addition, only 13% of technical higher education institutions updated their main planning tool in a timely manner (Institutional Educational Project) and only 18% did so with their annual work plan. Also, 34% lack a student academic record management system, and almost 60% do not have staff dedicated to maintaining academic records; and (ii) academic management. Technical higher education institutions lack qualified staff to perform these duties. Only 18% have an educational management area with a specialist on the subject. As far as relevance, only 30% of the programs offered are connected to one of the top five economic activities of the region where the institution operates. Only two of the 351 public institutions have more than 10 agreements with companies in their regions, and the remainder have fewer than five.

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35 Six percent of public university professors have a doctorate and 80% have a master's degree (Cuenca and Reategui, 2016).

36 Pont, Nusche, and Moorman (2008).

37 Lange (1988).

38 Suri et al. (2011), Kaul (2010), McLean (2006), and Peters (2009) show that the efficient management of higher education plays an important role in determining the quality of a country's labor supply.

39 Chacaltana and Yamada (2005).

40 Estimates from the project preparation unit based on "*Consulta Amigable del MEF*".

1.11 **Systemic equipment and infrastructure deficits in certain public higher education institutions.** SUNEDU began the process to license universities in 2015. To date, only two of the 51 public universities have been licensed;[41] however, 10 of the 91 private universities have obtained licensing. One of the basic quality conditions to be met for licensing is: "Basic infrastructure and equipment to fulfill their functions." Of the total number of universities with a computer lab, a science lab, and study rooms, only 31%, 34%, and 28%, respectively, are public. For technical higher education institutions, the basic quality conditions[42] established for their licensing are that they must have "physical infrastructure, equipment, and resources for effective learning, such as libraries, laboratories, and more, that are relevant to the development of educational activities." MINEDU's analyses show that none of the public institutions fulfills these conditions.

1.12 **Lessons learned.** The design of this operation is based on close cooperation between the Bank and the Government of Peru on higher education. Three areas are worth highlighting: (i) the experience gained from executing programs related to the objectives of the proposed operation; (ii) the knowledge and best practices gathered in the area of higher education; and (iii) the studies conducted that contributed to program design. The operations related to the first area are the Innovation Project for Competitiveness in Peru (2693/OC-PE), which includes competitions to stimulate research and grant funds for scientific equipment; and the Skills for the Future Program in Barbados (2739/OC-BA), which seeks to align schools with the production sector through grant funding for training in educational institutions and industries. Experience from both projects has been included in Component 2. This includes the selection of a grant-funding mechanism that is suitable to promote changes in the institutional management of higher education institutions and estimates of its scope (based on potential demand from higher education institutions); and the definition of objective criteria to be used for resource allocation. Another related operation is the Program to Improve Technical Vocational Education in Chile (3539/OC-CH), which seeks to improve the quality, relevance, and effectiveness of technical vocational education by developing an institutional framework that coordinates the actors involved; improve the connections with the production sector; and increase the transparency of degrees and programs through an NQF. Experience with this project highlighted that implementing national educational reform entails overcoming inertia within ministries, having strong interagency and intersectoral coordination, and dealing with management cultures that do not move quickly. Therefore, for Component 1, the operation will begin the process of designing and implementing comprehensive tools such as a standardized test and an NQF. However, it does not include their final development.

1.13 For the second area, specific studies about Peru's higher education system and best practices on this subject were conducted. There were also workshops with international experts and sector stakeholders in Peru.[43] The lessons learned showed that it is important to develop tools to gather information, include the

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41 Universidad Nacional Agraria La Molina and Universidad Nacional Autónoma de Huanta.

42 Draft regulation bill for Law 30512, published with Ministerial Resolution 216-2017-MINEDU.

43 "*Transformación: habilidades para la productividad*." Link. For a list of the studies conducted, see the Labor Sector Framework Document (document GN-2741-7) and the Education and Early Childhood Development Sector Framework Document (document GN-2708-5).

production sector in decision-making, and guide curriculum development. Therefore, Component 1 will finance the development of these types of tools (infrastructure census, methodology to contribute to the relevance of higher education, inputs to reform the educational offerings of technical higher education institutions, SCCs). It also emphasizes the importance of financial incentives and quality assurance mechanisms. These have been included in Component 2, which features grant funds to promote management improvements in public higher education institutions. In addition, the lessons learned showed that the facilities of higher education institutions are key for good student performance.[44] Therefore, Component 3 includes resources to improve the facilities and equipment of the prioritized higher education institutions. For the third area, operation ATN/OC-14539-PE financed the development of two SCC pilots that will serve as a basis to build the SCC model to be financed in Component 1. This operation also developed the concept of an NQF and a road map for its design and implementation. This was used to define the scope of NQF-related activities for Component 1. Likewise, under operation ATN/OC-16162-PE, there was an analysis of the execution capacity of MINEDU's main execution units. This analysis showed that it was unnecessary to create a new execution unit and that instead MINEDU's execution unit 118 should be strengthened.

1.14 **Strategic alignment.** The program is consistent with the Update to the Institutional Strategy (UIS) 2010-2020 (document AB-3008), and is strategically aligned with the following development challenges: (i) social inclusion and equality, by promoting equal access to quality, relevant higher education, specifically seeking to improve free public higher education; and (ii) productivity and innovation, by seeking to improve workforce skills and entry into the formal jobs market. In addition, the program will contribute to the Corporate Results Framework (CRF) 2016-2019 (document GN-2727-6) through the indicator "students benefited by education projects," by improving the quality and relevance of higher education, specifically of public higher education. This operation is also aligned with the Education and Early Childhood Development Sector Framework Document (document GN-2708-5), specifically its fifth dimension: "All the children and young people acquire the necessary skills to be productive and contribute to society." In addition, it is aligned with the second dimension of the Labor Sector Framework Document (document GN-2741-7): "Workers are more productive and, consequently, obtain higher wages and more stable employment." In addition, this program is consistent with the IDB Country Strategy with Peru 2017-2021 (document GN-2889), since it contributes to the strategic objectives of supporting formalization and business development. It will help close the skills gap, strengthening quality assurance mechanisms and the production sector's involvement in higher education. It is also aligned with the Strategy on Social Policy for Equity and Productivity (document GN-2588-4) in that it prioritizes a social policy that favors equity and productivity, by providing better quality and increasing equality in education.

1.15 **Rationale.** The Government of Peru has requested the Bank's support for an operation to help implement higher education reform, which is key for increasing labor productivity (paragraph 1.2). This reform will also have positive effects on

[44] IDB (2002).

formal employment[45] and social mobility.[46] In addition, the reform seeks to improve the quality and relevance of higher education and is based on the common success factors suggested by international evidence (paragraph 1.5). Public higher education institutions lag significantly behind in terms of management and infrastructure.

B. Objectives, components, and cost

1.16 The program aims to improve productivity and entry into the formal job market for Peru's higher education graduates, by strengthening the quality and relevance of educational services. The program's overall objective is for Peru's university and technical higher education students to have access to institutions that provide suitable, relevant, and quality educational services nationwide. The specific objectives are: (i) to improve knowledge and information to guide policy decisions aimed at ensuring the quality and relevance of higher education; (ii) to strengthen the institutional framework of public university and technical higher education in order to provide relevant, quality educational services; and (iii) to ensure that public higher education institutions have suitable infrastructure and equipment.

1.17 **Component 1. Gather knowledge and information to improve the design of policies that promote quality and relevance (US$15 million).** Financing will be provided for studies and tools that gather information and knowledge for improving the quality and relevance of higher education. These studies and tools are grouped as follows:

a. **Quality of higher education.** This component aims to generate reliable, timely information to make it possible to improve the quality of education at public and private universities and technical institutes. To this end, financing will be provided for: (i) conducting an infrastructure and equipment census of public university higher education institutions, to help identify priority improvements in facilities and equipment for these institutions; (ii) conducting a study to implement a standardized tool to evaluate students who are entering university higher education; and (iii) designing, validating, and starting the implementation of the national qualifications framework in the three sectors that have SCCs in order to facilitate the portability of learning.

b. **Relevance of higher education.** This component seeks to ensure the relevance of higher education for the labor market, the needs of companies, and regional economic development. To this end, financing will be provided for: (i) identifying economic potential and needs for professional competencies in the regions with prioritized higher education institutions; (ii) designing a methodology to facilitate the relevance of curricular programs for university higher education; (iii) conducting studies to plan the process to reform the educational offerings of technical higher education institutions in the various regions, to ensure the relevance of the programs and the quality of the training;[47] and (iv) implementing SCCs in the strategic sectors of mining, agricultural exports, and tourism, to serve as mechanisms to involve

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45 Céspedes, Lavado, and Ramírez (2016).

46 Fullan (2001).

47 This process is called optimization of the educational offering and is set forth in Article 28 of Law 30512.

the production sector in education and strengthen the alignment of job market demand with technical higher education supply.

1.18 **Component 2. Strengthen the institutional management of public higher education institutions (US$70 million).** The objective of this component is to strengthen the institutional management of public higher education institutions in order to improve administrative and academic management and pedagogical innovation in university higher education and administrative and academic management in technical higher education through grant funds. The funds will be used as follows:

1.19 **Subcomponent 2.1. Improve administrative management in public higher education institutions (US$9 million).** The objective of this subcomponent is to improve the capacities of the staff responsible for administrative management (human resources, procurement, budget, investment, and strategic planning) and the tools to perform these duties. There will be calls for tenders to encourage higher education institutions to submit proposals that cover programs for: (i) building the capacities of university higher education institution staff responsible for administrative management through training and internships; (ii) hiring managers at university higher education institutions who are highly specialized in the administrative systems of the State of Peru; (iii) improving the management of administrative systems at university higher education institutions through the design, development, and implementation of applications or software and training in its use; (iv) building administrative management capacities through internships targeting technical higher education institution staff; (v) hiring managers at technical higher education institutions who are highly specialized in the administrative systems of the State of Peru; (vi) improving the academic information and records systems at technical higher education institutions through design, implementation, training, and updating on their use; and (vii) monitoring technical higher education institution graduates by designing and implementing monitoring systems and providing training on their use.

1.20 **Subcomponent 2.2. Improve academic management in public higher education institutions (US$54 million).** The objective of this subcomponent is to improve the design and implementation of programs and curricula that are relevant to the job market, and to finance equipment for academic processes. There will be calls for tenders to encourage higher education institutions to submit proposals that cover programs for: (i) hiring highly specialized academic managers for university higher education institutions; (ii) strengthening and improving management through the design and implementation of institutional documents for academic management and/or supplementary educational services, as well as curriculum programs that are relevant for the labor market; (iii) strengthening academic and pedagogical management capacities of university higher education institution staff through training and internships; (iv) strengthening and improvement of academic management in technical higher education institutions by tailoring their curriculums to market needs, procuring specialized equipment and training educators in its use; and preparing areas for the installation of specialized equipment; and (v) building the capacities of educators and staff responsible for academic and pedagogical management of technical higher education institutions through training and internships.

1.21 **Subcomponent 2.3. Improve the management of research and innovation in public university higher education institutions (US$7 million).** The objective of

this subcomponent is to recruit research and innovation managers and to improve management capacities in these areas. There will be calls for tenders to encourage university higher education institutions to submit proposals that cover four types of programs: (i) hiring highly specialized research and innovation managers; (ii) strengthening capacities of staff responsible for management of research and innovation through training and internships; (iii) improving the management of research and innovation through the design, implementation, and enhancement of research and innovation agendas, plans, and projects; and (iv) strengthening liaison offices that connect universities and the business sector.

1.22 There will be approximately 60 calls for proposals (optional link 4) throughout program execution, and the financing of proposals will vary by subcomponent. For administrative management improvement proposals, it will range between US$3,000 and US$590,000; for academic management, between US$9,000 and US$351,000; and for research and innovation management, between US$22,000 and US$175,000. Financing will be granted on a competitive basis, following a set of criteria such as: technical quality of the proposal (match between objectives, rationale, institutional priorities, budget, and timeline); institutional capacity to implement or take advantage of the results; outlook for sustainability beyond the life of the proposal being financed; presence of project performance indicators of suitable relevance and quality; innovative character of the actions proposed or the strategies to move forward; and alignment with the applicable institutional mission.[48] A board of directors made up by representatives from MINEDU and the Ministry of Economy and Finance (MEF) will determine the final approval of proposals, following a strict review and evaluation process that will include external evaluators. The execution unit will be responsible for procurement and financial management of all related activities and for the technical supervision of execution and closure of each project financed. To ensure that higher education institutions are informed about the activities under this component, program funds will be used to finance a communications strategy to launch and promote program activities. To make sure that higher education institutions are able to submit quality proposals, this subcomponent includes financing of training activities for these institutions on how to prepare proposals.

1.23 **Component 3. Improve the infrastructure and equipment of public higher education institutions (US$100 million).** The objective of this component is to improve the facilities and equipment of prioritized public higher education institutions, seven of which are universities and two are technical institutes.[49] These projects have been selected to provide these institutions with all the necessary physical means to both meet demand and educational needs as well as be able to achieve the required level of quality. Therefore, this component will finance the following activities: (i) preparation of the technical infrastructure file, including developing designs in line with the National Regulations on Buildings and Standards of the Ministry of Education; (ii) performing works to remodel and/or

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[48] Footnote 30. Thanks to ProCalidad, MINEDU and higher education institutions have gathered knowledge and experience, respectively, on how to develop grant funds and how to present projects. The Operations Manual will set forth all the criteria for grant funds.

[49] The interventions will focus on departments and/or schools prioritized by MINEDU in coordination with higher education institutions. The details of these projects are included in the applicable public investment projects, which MINEDU will validate in advance.

build the facilities based on the approved technical file; and (iii) supervising the construction and/or remodeling works; and purchasing the equipment included in the technical file and the respective training.

1.24 **Program administration (US$15 million).** This will finance the following activities: (i) establishing the execution unit; (ii) conducting financial and concurrent audits (paragraph 3.7); and (iii) performing program monitoring and evaluation (paragraphs 3.10 and 3.11).

C. Key results indicators

1.25 The impact indicator will be measured through the difference in the change in income between graduates of the beneficiary public universities and the control group. The outcome indicators will measure: (i) improvements in the administrative and academic management of university and technical higher education institutions; (ii) improvements in the performance of research and innovation management in university higher education institutions; and (iii) progress in basic quality conditions, especially for facilities and equipment. These include increasing the percentage of employees working in these areas who are qualified to perform their duties;[50] increasing the number of curricula linked to regional needs; and increasing the number of beneficiary public universities that obtain licensing.

1.26 Output indicators will be monitored for each component. For Component 1, these indicators will include: an infrastructure census of public university higher education institutions; a study to implement a standardized test; and a validated design for an NQF. For Component 2, the indicators will include having approved programs in each of the institutional management areas considered for grant funds. For Component 3, the indicators will include the documents to verify completion of the projects to update the facilities and equipment of the seven universities and three technical institutes selected. Details for these indicators are in Annex II.

1.27 The cost-benefit analysis yielded a positive net present value of US$205.5 million. The social internal rate of return is 24%, higher than the discount rate of 12%, representing the program's opportunity cost (optional link 1). These results are based on conservative assumptions, and the benefits do not include positive externalities commonly associated with these types of interventions. The sensitivity analysis confirmed the program's economic viability under all the assumptions. The most sensitive assumptions were those in the infrastructure component, followed by the management component.

II. Financing Structure and Main Risks

A. Financing instruments

2.1 This operation will be a specific investment loan with a total cost of US$200 million, of which US$75 million will be financed by the IDB from Ordinary Capital resources and US$125 million from local counterpart funds (see Table 1). The disbursement period will be five years, based on the scope of the Multiyear Execution Plan

[50] Employees are qualified if they meet one of these two conditions: hired through a competitive process based on skills for the job or trained during the past five years to perform their job duties.

outputs (required link 1) and recent experience with multilateral loans in this sector. The program's disbursement schedule is in Table 2.

Table 1. Program cost (US$)

Component	IDB	Local counterpart	Total
1. Gather knowledge and information to improve the design of policies that promote quality and relevance	12,000,000	3,000,000	15,000,000
2. Strengthen the institutional management of public higher education institutions	35,233,450	34,766,550	70,000,000
3. Improve infrastructure and equipment	25,000,000	75,000,000	100,000,000
Program administration	2,766,549	12,233,451	15,000,000
- Program management		12,233,451	12,233,451
- Monitoring and evaluation	2,295,513	-	2,295,513
- Audits	471,036	-	471,036
Total	**75,000,000**	**125,000,000**	**200,000,000**

Table 2. Disbursement schedule (US$)

Source of financing	Year 1	Year 2	Year 3	Year 4	Year 5	Total
IDB	10,939,291	23,211,530	23,374,295	6,385,760	11,089,124	75,000,000
Counterpart	8,810,808	43,549,521	47,528,462	12,785,953	12,325,256	125,000,000
Total	**19,750,099**	**66,761,051**	**70,902,757**	**19,171,713**	**23,414,380**	**200,000,000**
Percentage	9.9%	33.4%	35.5%	9.6%	11.7%	100%

B. Environmental and social risks

2.2 This program does not include activities that generate negative environmental or social impacts. According to the guidelines of the Environment and Safeguards Compliance Policy (Operational Policy OP-703), the operation has been classified as a category C operation. The structural interventions will have a low impact, since they will take place in locations with existing infrastructure for education. There are no plans for any type of resettlement. If there are environmental impacts during execution, they are expected to be small in size, of short duration, localized, and easy to manage with simple and routine prevention and control measures, as defined in Peru's environmental technical regulations. These impacts include: (i) impact on air quality and noise; (ii) pollution of surface waters; and (iii) generation of liquid, solid, and gaseous waste.

C. Fiduciary risks

2.3 The risk evaluation performed during program design identified a medium risk of delays in fiduciary processes due to: (i) the lack of procurement staff with experience following IDB policies; and (ii) the lack of staff trained on and familiar with updated fiduciary management policies, causing weaknesses in the financial management area. To mitigate these risks, the following measures have been considered: (i) retaining a national or international consultant who has specialized technical knowledge on procurement. This is included in the operation's Procurement Plan (required link 3); and (ii) providing training on procurement and

financial management to the execution unit staff involved in program execution. This will be provided by the Bank.

D. Other project risks

2.4 **Development and implementation risks:** Medium risks were identified, as follows: (i) the outputs financed under the program do not meet the needs of the production sector, because there is low coordination at all levels (national, regional, and local) with this sector to prepare and implement related activities in order to ensure their relevance; (ii) cost overruns due to inconsistencies between the preinvestment study, the final studies, and the technical dossiers for public investment projects; and (iii) delays in preparing the program's infrastructure and equipment projects due to delays from the project preparation units in declaring the projects viable. To mitigate these risks, the following measures have been considered: (i) developing a joint strategy to facilitate coordination between key public sector actors (MINEDU, MTPE, Ministry of Production, regional governments, etc.); educational institutions (universities and institutes); and private sector organizations that enables the production sector to participate actively, as well as including representatives from the production sector in the program's board of directors;[51] (ii) including specific engineering information for each targeted public investment project during project preparation, and having ongoing coordination between the execution unit and the project preparation units throughout the planning and preparation of the technical dossier; and (iii) raising awareness about the critical path and milestones of the necessary activities, in coordination with regional governments, universities, and other relevant actors, in order to achieve the projects' preparation and viability.

2.5 **Public management and governance risks:** The following risks were identified: (i) pressure to accelerate execution times, particularly because of the election context for 2018-2020 in regional governments and the election of officials in universities (medium risk); and (ii) high turnover of technical staff in MINEDU and key actors, which will impact program development (high risk). To mitigate these risks, the following measures have been considered: (i) aligning execution periods with regional governments and universities, based on ongoing interaction about progress during the phases of prioritization, preparation, execution, and monitoring of equipment and infrastructure works in institutes and universities; and (ii) maintaining key actors involved in program execution informed on an ongoing basis about the execution unit's reports and management plans and the program's technical objectives.

2.6 **Sustainability.** The Government of Peru began a medium- and long-term higher education reform in 2014. The University Act (Law 30220) and the Higher Education Institutes and Schools Act (Law 30512), approved in 2014 and 2016, respectively, as well as their respective operating regulations, make up the regulatory framework and provide guidelines for reform measures to be executed in the coming years. The activities included in this operation are based directly on both laws, ensuring the sustainability of the measures considered.

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[51] Execution unit 118 already has a board of directors, and information about its composition will be included in the program's Operations Manual.

III. Implementation and Management Plan

A. Summary of implementation arrangements

3.1 **Borrower and executing agency.** The borrower will be the Republic of Peru. MINEDU will be the program's executing agency, through the budget execution unit of that ministry known as execution unit 118. This is an existing deconcentrated entity that reports to the Office of the Deputy Minister of Pedagogical Management. It has capacity available and is currently executing programs with financing from the IDB, Kreditanstalt für Wiederaufbau (KfW) (*Bank aus Verantwortung*), and the World Bank. This execution unit will be the program's management entity. It will be responsible for the following duties: administration (related to budgeting, programming, accounting, treasury, and procurement); economics; finance; technical coordination; and program planning, execution, monitoring, and evaluation (optional link 2 and Annex III).

3.2 The execution unit will implement its activities in close coordination with the line agencies involved in the program, mainly the Bureau of University Higher Education and the Bureau of Technological and Artistic Technical-productive and Higher Education. It will also have the support of a work group made up of representatives of the Ministry of Economy and Finance and the Ministry of Education, whose duties will be established in the program Operations Manual. MINEDU has experience executing Bank-financed projects. It is currently executing the Program to Improve Early Education in Ayacucho, Huancavelica, and Huánuco (PE-L1062, 2661/OC-PE), which is in its final stage. The execution unit's organizational structure will be set up with individual consultants who are dedicated to the program exclusively and on a full-time basis. The execution unit will also have specialized staff to execute the program as set forth in the program's Operations Manual.

3.3 For execution of the component to strengthen the institutional management of public institutions of higher education, financing will be provided on a competitive basis following eligibility criteria set forth in the program's Operations Manual. Proposals will be evaluated by a technical work team following a rigorous review and evaluation process that will include external evaluators and will be submitted for approval by the board of directors or the body serving in such capacity. Execution unit 118 will be responsible for the procurement, hiring, and financial management of all related lines of action and will provide technical supervision of the execution and closure of each line of action.

3.4 The execution unit will use the Electronic Government Procurement and Contracting System to record the Procurement Plan (required link 3), in order to disseminate procurement processes. It will also use the Integrated Financial Administration System (SIAF) as the financial management operations system to record accounting entries for program operations. It will be necessary for this unit to retain fiduciary staff qualified in financial management, and for the Bank to offer training for this staff and other execution unit staff involved in program execution.

3.5 **Special contractual conditions precedent to the first loan disbursement:** As a contractual condition precedent to the first disbursement, the executing agency will submit, to the Bank's satisfaction, evidence of fulfillment of the following conditions: (i) **MINEDU execution unit 118 will have its key staff, with the requirements agreed upon with the Bank: a general coordinator; an administrative chief; a**

planning and budgeting specialist; a financial accounting specialist; and a procurement specialist, forming an appropriate team to start execution of the operation; and (ii) **evidence will be submitted of approval of the program's Operations Manual, with the Bank's prior no objection**, to ensure that the program has the regulations necessary for proper operation and that the guidelines and procedures for the executing agency have been established.

3.6 The Program's Operations Manual sets forth operational guidelines and procedures related to: (i) the program's execution structure and the executing agency's responsibilities; (ii) the responsibilities of other bodies regarding implementation; (iii) the planning and programming procedures for the activities to be financed; (iv) procedures and processes for technical management and financial and procurement administration (including an Operations Manual for Component 2 grant funds); and (v) the operating instructions to implement the program's monitoring and impact assessment activities.

3.7 Program activities that require coordination with other institutions are the sector competency councils and the national qualifications framework. Work has been done with the Government Compliance and Social Innovation Office of the Presidency of the Council of Ministers, which is responsible for coordination, monitoring, and evaluation of government priorities (optional link 5). Seven areas were prioritized: health; water and sanitation; formalization; security; education; anticorruption; and infrastructure. For each area, objectives, targets, government actors involved and their respective roles and responsibilities, and key interventions were defined. Sector competency councils and the national qualifications framework are part of the key interventions for the priority area of formalization (since they will help improve workers' skills). That office believes that, in addition to MINEDU (responsible for the development of sector competency councils and the national qualifications framework), the other two ministries involved should be the Ministry of Production (because of its role in production development) and the Ministry of Labor and Job Promotion (because of its role in skills certification). Because of that office's mandate, an interagency cooperation agreement is not necessary in order to develop sector competency councils and the national qualifications framework.

3.8 **Fiduciary agreements and requirements.** The fiduciary agreements and requirements establish the financial management and planning framework, as well as the framework for supervision and execution of relevant procurement processes for program execution. The disbursement modalities for loan proceeds will be advance of funds, expense reimbursement, and direct payment to suppliers. For the advance of funds modality, disbursements will be based on estimated expenditures for up to 180 days. The minimum percentage required for replenishment of the advance will be 80%. The executing agency will submit audited annual and final financial statements for the program, following the terms and deadlines that the Bank requires in its policies. Therefore, the execution unit agrees to select and retain an independent audit firm acceptable to the Bank for the duration of the program. The cost of the audit services will be covered from loan proceeds, and the contracting and selection process will follow IDB policies and standards.

3.9 **Procurement.** The Policies for the Procurement of Works and Goods Financed by the Bank (document GN-2349-9) and the Policies for the Selection and Contracting of Consultants Financed by the Bank (document GN-2350-9) will apply.

B. Summary of arrangements for monitoring results

3.10 **Monitoring arrangements.** To monitor this operation's progress, the executing agency and the Bank have agreed to closely monitor program execution by using the Results Matrix (Annex II), the Multiyear Execution Plan, and the annual work plans (required link 1), as well as semiannual Program Monitoring Reports. To facilitate monitoring, the Education Division, in cooperation with the Bank's Country Office in Peru, will periodically conduct field visits and meetings with the work team to discuss the needs arising from these reports. The Monitoring and Evaluation Plan (MEP) sets forth the monitoring actions (required link 2).

3.11 **Results evaluation arrangements.** Using a quasiexperimental methodology, the impact of the program's interventions will be evaluated upon its completion. Impact on the following will be measured: (i) the difference in the percentage change in income between graduates of the beneficiary public universities and the control group; and (ii) the quality of the institutions and of the services they provide, measured through the staff's capacity to manage them (required link 2).

Development Effectiveness Matrix		
Summary	PE-L1227	
I. Corporate and Country Priorities		
1. IDB Development Objectives	Yes	
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality -Productivity and Innovation	
Country Development Results Indicators	-Students benefited by education projects (#)*	
2. Country Development Objectives	Yes	
Country Strategy Results Matrix	GN-2889	Support formalization of the economy.
Country Program Results Matrix		The intervention is not included in the 2018 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability		Partially Evaluable
3. Evidence-based Assessment & Solution	6.6	
3.1 Program Diagnosis	2.1	
3.2 Proposed Interventions or Solutions	4.0	
3.3 Results Matrix Quality	0.5	
4. Ex ante Economic Analysis	6.0	
4.1 Program has an ERR/NPV, or key outcomes identified for CEA	3.0	
4.2 Identified and Quantified Benefits and Costs	0.0	
4.3 Reasonable Assumptions	1.0	
4.4 Sensitivity Analysis	2.0	
4.5 Consistency with results matrix	0.0	
5. Monitoring and Evaluation	8.0	
5.1 Monitoring Mechanisms	2.5	
5.2 Evaluation Plan	5.5	
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, Accounting and Reporting, External Control. Procurement: Information System, Price Comparison.
Non-Fiduciary	Yes	Statistics National System.
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
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	Through the non-reimbursable technical cooperations PE-T1302 and PE-T1320 and PE-T1382, workshops and the preparation of studies related to the loan were supported.

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

The program seeks to strengthen the quality and relevance of tertiary education to improve productivity and entry into the labor market of students in the country's tertiary education institutions. In order to achieve this, the operation has three components intended to: generate information to improve the design of educational policies; strengthen the management of Public Higher Education Institutions (HEIs) through the award of competitive funds; and improve the infrastructure and equipment of public HEIs. The first component of the program is expected to benefit tertiary (university and technical) students across the country, while the second and third component will benefit students from public institutions receiving competitive funding and infrastructure improvements.

The program presents empirical evidence of the main problems in general. The vertical logic presented in the loan proposal is consistent, covering inputs, outputs, outcomes and impacts, and evidence is presented on the effectiveness of most interventions. However, there is no explicit discussion of the effectiveness of interventions on the outcome and impact indicators. The diagnosis does not refer to the current political context of the country that could affect the execution of the program. The results matrix includes indicators for the main outputs, outcomes and impacts of the program; but it does not include results indicators for the first component. In general, although with some exception, matrix indicators meet the SMART criteria and either include baseline values or indications that they will be calculated in the near future. Impact indicators measure the differences in income of students graduating from beneficiary higher education institutions compared to a control group. The implementation of the program will be carried out by the Ministry of Education through a Budgetary Executing Unit, linked to the Vice-Ministry of Pedagogical Management, which is carrying out other Bank projects. The same unit will also be in charge of monitoring the operation.

Monitoring and Evaluation activities have been planned and budgeted and incorporate administrative data, program reports, and information collection; yet, some of the activities do not explicitly incorporate the unit responsible for monitoring. The program presents a cost-benefit analysis that supports the economic feasibility of the proposed activities. However, it is not clear how it incorporates the first component as part of the calculation, and the labor income is not quantified according to the impact indicators in the results matrix. A quasi-experimental impact evaluation to measure the impact of the program on intermediate outcomes and income is also planned. This evaluation incorporates power calculations to determine the calculation of the detectable minimum effects, but more information (including the basic assumptions) is needed to be able to validate them. Likewise, the minimum detectable effects are at the limit of not being able to detect the effect expected by the program. The activities that will be carried out to ensure the transparency and credibility of the evaluation are not described.

RESULTS MATRIX

Project objectives:	The program aims to improve productivity and entry into the formal labor market for Peruvian students in higher education institutions by strengthening the quality and relevance of educational services. The program's overall objective is for Peru's university and technological higher education students to have access to institutions that provide suitable, relevant, and quality educational services. The specific objectives are: (i) to improve knowledge and information to guide policy decisions aimed at ensuring the quality and relevance of higher education; (ii) to strengthen the institutional framework of public university and technical higher education in order to provide relevant, quality educational services; and (iii) to ensure that public higher education institutions have suitable infrastructure and equipment.

EXPECTED IMPACT

Indicators	Unit of measure	Baseline	Baseline Year	Final target	Means of verification	Comments
1. Difference in the change of income between graduates of beneficiary public universities and the control group $D = [\overline{w}_{t1} - \overline{\overline{w}}_{t0}]^B - [\overline{\overline{w}}_{t1} - \overline{\overline{w}}_{t0}]^C$ Where w_{tk} corresponds to Ln for the average real income received by an individual during the first three years after graduation in tk (with k=0 for the period before the program and k=1 for the period after the program); B refers to graduates of the beneficiary universities; and C to graduates in the control group.	%	0	2017	0.14	Electronic payroll[1]	The control group is made up of higher education graduates from similar institutions. (Monitoring and Evaluation Plan (MEP) optional link 2). Using a logarithmic scale, the difference approximates a percentage change and therefore percentages are being used as measurement units.
2. Difference in the change of income between graduates of the beneficiary public technical institutes and the control group. $D^* = [\overline{w}_{t1} - \overline{\overline{w}}_{t0}]^B - [\overline{\overline{w}}_{t1} - \overline{\overline{w}}_{t0}]^C$ See an explanation of the formula under indicator 1. In this case, B refers to graduates of the beneficiary technical institutes, and C to graduates in the control group.	%	0	2017	0.14	Electronic payroll	Same as above, but for graduates of technical institutes instead of universities (optional link 2).

[1] The electronic payroll only includes information for formal jobs.

EXPECTED OUTCOMES

Indicators	Unit of measure	Baseline	Baseline year	Final target	Means of verification	Comments
Component 2: Strengthen the institutional management of public higher education institutions						
Subcomponent 2.1: Improve administrative management in public higher education institutions						
2.1.2. Difference in the percentage of administrative staff (employees responsible for administrative systems and/or public administration managers) who have: (i) completed training to apply the State's administrative systems, academic record management systems, or graduate monitoring systems; or (ii) been hired through a competitive process. The number would be calculated based on the difference between the administrative staff of the beneficiary technical higher education institutions and a control group (MEP). (Qualified administrative staff in beneficiary technical higher education institutions/Total administrative staff in beneficiary technical higher education institutions) - (Qualified administrative staff in nonbeneficiary technical higher education institutions/Total administrative staff in nonbeneficiary technical higher education institutions)	Percentage points	0	2016	9.26	2010 census baseline. MEP survey.	Baseline: it is assumed to be the same for beneficiaries and the control group; based on school census data from the first semester of 2016, it is 63%.
Subcomponent 2.2: Improve academic management in public higher education institutions[2]						
2.2.1. Difference in the percentage of staff hired for academic management positions (responsible for staff management and their ongoing training), and faculty trained in pedagogical management (on new technologies that the job market demands and design of educational models and curricula).	Percentage points	0	2010	20	2010 census baseline. MEP survey.	Baseline: it is assumed to be the same for beneficiaries and the control group; based on university census data from 2010, it is 55%.

[2] These indicators are linked to the quality indicators described in the Proposal for Operation Development that relate the quality of management and the quality of higher education.

Indicators	Unit of measure	Baseline	Baseline year	Final target	Means of verification	Comments
The number would be calculated based on the difference between the academic departments of the beneficiary universities and a control group. (Qualified staff in academic management positions in beneficiary universities/Total staff in academic management positions in beneficiary universities) - (Qualified staff in academic management positions in nonbeneficiary universities/Total staff in academic management positions in nonbeneficiary universities)						
2.2.2. Difference in the percentage of staff hired for academic management positions (responsible for staff management and their ongoing training), and faculty trained in pedagogical management (on new technologies that the job market demands and design of educational models and curricula). The number would be calculated based on the difference between the academic staff of the beneficiary technical higher education institutions and a control group. (Qualified staff in academic management positions in beneficiary technical higher education institutions/Total staff in academic management positions in beneficiary technical higher education institutions) - (Qualified staff in academic management positions in nonbeneficiary technical higher education institutions/Total staff in academic management positions in nonbeneficiary technical higher education institutions)	Percentage points	0	2010	TBD	2010 census baseline. MEP survey.	This value will be updated once the management baseline survey results are available (MEP survey).
2.2.3. Difference in the percentage of curricular programs from beneficiary technical higher education institutions that are connected to the region's top five economic activities compared to a control group. The number would be calculated based on the difference between the percentage of beneficiary technical higher education institutions that are using the "How-to guide" developed for these purposes under Component 1 and a control group. (Beneficiary technical higher education institutions that are using the "How-to guide" developed for	Percentage points	0	2017	12	Program reports/Execution unit's monitoring reports	This assumes that the difference between the beneficiaries and the control group is zero. To verify the relevance of the curricula, technical higher education institutions will be asked to show concrete evidence that they have been using the "How-to guide" developed for these purposes under Component 1. By the end of the project, all the institutions will have been through the licensing process, which as one of the licensing criteria, will require

Indicators	Unit of measure	Baseline	Baseline year	Final target	Means of verification	Comments
these purposes under Component 1/Total number of beneficiary technical higher education institutions) - (Nonbeneficiary technical higher education institutions that are using the “How-to guide” developed for these purposes under Component 1/Total number of nonbeneficiary technical higher education institutions)						that academic programs are relevant.
Subcomponent 2.3: Improve the management of research and innovation in public university higher education institutions						
2.3.1. Difference in the percentage of staff in research and innovation management positions that: (i) has been trained to perform their duties in the past two years (they are considered as trained); and (ii) has been hired (not appointed) and selected through a competitive process based on skills for the job. The number would be calculated based on the difference between the research departments of the beneficiary universities and a control group (optional electronic link 2). (Qualified staff in research and innovation management positions in beneficiary universities/Total staff in research and innovation management positions in beneficiary universities) - (Qualified staff in research and innovation management positions in nonbeneficiary universities/Total staff in research and innovation management positions in nonbeneficiary universities)	Percentage points	The baseline will be determined in January 2018	2018	TBD	Program reports/Execution unit’s monitoring reports	The definition for research and innovation managers included in the 2010 university census will be used. This value will be updated once the management baseline survey results are available (MEP survey).
Component 3: Improve the infrastructure and equipment of public higher education institutions						
3.1. Number of beneficiary universities that obtain licensing from SUNEDU	%	1	2017	6	SUNEDU	Seven public universities will be the beneficiaries under Component 3. Since one of these seven, Universidad Nacional Agraria La Molina, is already licensed, the five-year target is that six of the seven would be licensed by the end of the period. Licensing is granted to higher education institutions that achieve basic quality conditions, including infrastructure and equipment.

Indicators	Unit of measure	Baseline	Baseline year	Final target	Means of verification	Comments
3.2. Number of program beneficiary students in public universities	Number	0	2017	203,613	Program reports, execution unit's monitoring reports, or Higher Education Information System reports	The final target was estimated using the enrollment information for 2015 for the seven beneficiary universities under Component 3 (100,613) and an estimate of the students enrolled in the universities that would benefit under Component 2 (103,000). The outcome is associated with impact indicator 1.
3.3 Number of program beneficiary students in public technical higher education institutions	Number	0	2017	8,750	Program reports, execution unit's monitoring reports, annual school census.	The final target was estimated using the current enrollment information for the two beneficiary technical higher education institutions under Component 3; data from the 2016 school census (2,120); and an estimate of the students enrolled in the technical higher education institutions that would benefit under Component 2 (6,630). The outcome is associated with impact indicator 2.
3.4. Number of beneficiary technical higher education institutions that fulfill the basic quality conditions regarding infrastructure (there is no control group)	Number	0	2017	All beneficiary technical higher education institutions	Program reports/Execution unit's monitoring reports	Two public technical higher education institutions will be beneficiaries under Component 3. The proposed target is that after five years, the two targeted public technical higher education institutions fulfill the basic quality conditions regarding infrastructure.

OUTPUTS

Outputs	Unit of measure	Base-line	Base-line Year	Year1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
Component 1: Gather knowledge and information to improve the design of policies that promote quality and relevance											
1.1 Infrastructure and equipment census of public higher education institutions	Infrastructure census	0	2017	0	1	0	0	0	1	Infrastructure census	
1.2. Study conducted to implement a standardized tool to evaluate students who enter university higher education (standardized test)	Document	0	2017	0	0	0	2	2	4	Document with a study to implement a standardized tool	
1.3. National qualifications framework development plan validated by the compliance unit	Document	0	2017	1	1	1	0	0	3	Plan sent to the IDB	Validated by MINEDU and the compliance unit of the Presidency of the Council of Ministers (optional electronic link 5).
1.4. Strategies developed to identify the economic potential and needs for professional skills in eight regions	Document	0	2017	1	0	0	0	0	1	Document with strategies	The regions will be those with higher education institutions prioritized under Component 3 (see paragraph 1.23 of the loan proposal). It is estimated that there will be eight of them.
1.5. Design completed of a methodology to facilitate the relevance of curricular programs for university higher education	Documents	0	2017	1	2	0	0	0	3	Documents with a methodology designed	

Outputs	Unit of measure	Base-line	Base-line Year	Year1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
1.6. Studies conducted to plan the process to reform the educational offerings of technical higher education institutions in the regions, to ensure relevant programs and quality education	Document	0	2017	0	1	1			2	Studies	
1.7. Occupational standards developed by the sector competency councils (SCCs) and validated by the compliance unit	Document	0	2017	0	0	1	1	1	3	Annual management documents for the SCCs	The main characteristic to consider that an SCC has been implemented is for it to be legally established.
Component 2. Strengthen the institutional management of public higher education institutions											
2.1. Number of administrative management improvement programs for public universities approved for grant funding	Programs approved	0	2017	0	15	25	32		72	Semiannual reports sent to the IDB	The plan is to have 36 programs for managers; 25 for system improvement; and 45 for capacity-building. Source: public borrowing project prepared by the project preparation unit. This is considered as a valid output, since excess demand for funds is expected. Based on experience with the ProCalidad program. From the original target of 155 projects, 200 were approved for US$40 million; 93 were for universities.

Outputs	Unit of measure	Base-line	Base-line Year	Year1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
2.2. Number of administrative management improvement programs in public technical higher education institutions approved for grant funding	Programs approved	0	2017	0	10	20	26		56	Semiannual reports sent to the IDB	This is considered as a valid output, since excess demand for funds is expected. Based on experience with the ProCalidad program. From the original target of 155 projects, 200 were approved for US$40 million; 73 were for technical institutes.
2.3. Number of academic management improvement programs in public universities approved for grant funding	Programs approved	0	2017	5	10	10	15	4	44	Semiannual reports sent to the IDB	The plan is to have 36 programs to recruit managers; 36 academic and teaching improvement programs; 24 capacity-building programs; and 192 leaders trained. Source: public borrowing project prepared by the project preparation unit.
2.4. Number of academic management improvement programs in public technical higher education institutions approved for grant funding	Programs approved	0	2017	3	10	10	10	2	35	Semiannual reports sent to the IDB	
2.5. Number of scientific production improvement programs in public universities approved for grant funding	Programs approved	0	2017	0	5	10	15	18	48	Semiannual reports sent to the IDB	The plan is 48. Source: public borrowing project prepared by the project preparation unit.

Outputs	Unit of measure	Base-line	Base-line Year	Year1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification	Comments
Component 3: Improve the infrastructure and equipment of public higher education institutions											
3.1. Public investment projects for beneficiary universities, completed	Projects	0	2017	0			4	3	7	Report about facilities completed and furniture installed	To be considered complete, the works executed and the equipment procured need to be as planned for each project.
3.2. Public investment projects for beneficiary technical higher education institutions, completed	Projects	0	2017	0				2	2	Report about facilities completed and furniture installed	

FIDUCIARY AGREEMENTS AND REQUIREMENTS

Country:	Republic of Peru
Project No.:	PE-L1227
Name:	Program for the Improvement of the Quality and Relevance of University and Technical Higher Education Services at the National Level
Executing agency:	Ministry of Education (MINEDU)
Prepared by:	Andrés Suárez and Gabriele del Monte (FMP/CPE)

I. EXECUTIVE SUMMARY

1.1 **Fiduciary context of the country.** The country's financial administration systems are effective and reliable. Peru's public procurement system's electronic reverse auction and electronic price lists for framework agreements subsystems are being used as approved under document GN-2538-11.

II. FIDUCIARY CONTEXT OF THE EXECUTION UNIT AND THE EXECUTING AGENCY FOR ADMINISTRATION OF PROJECT BENEFICIARIES

2.1 The project will be executed by MINEDU through an execution unit (execution unit 118). This is an existing deconcentrated entity that has capacity available, which is currently executing programs with financing from the IDB, Kreditanstalt für Wiederaufbau (KfW) (*Bank aus Verantwortung*), and the World Bank. This execution unit will be responsible for the following duties: administration (budgeting, programming, accounting, treasury, and procurement, as well as applying IDB standards and procedures, and following national regulations); economics; finance; technical coordination; and program planning, execution, monitoring, and evaluation. It will act as MINEDU's counterpart with respect to the IDB.

2.2 The execution unit will implement its activities in close coordination with the senior bodies involved in the operation. MINEDU has experience executing Bank-financed projects. It is currently executing the Program to Improve Early Education in Ayacucho, Huancavelica, and Huánuco (2661/OC-PE), which is in its final stage. The execution unit's organizational structure will be set up with individual consultants who are dedicated to the program exclusively and on a full-time basis.

2.3 The execution unit uses the Electronic Government Procurement and Contracting System to record the Procurement Plan. For the dissemination of procurement processes, it uses the Integrated Financial Administration System (SIAF) as the financial management operations system to record accounting entries for program operations. It will be necessary for this unit to retain fiduciary staff qualified in financial management, and for the Bank to train this staff and other execution unit staff involved in program execution.

III. Fiduciary Risk Evaluation and Mitigation Actions

3.1 An evaluation of the fiduciary situation and an assessment of the institutional capacity of the execution unit were conducted using the Institutional Capacity Assessment System (ICAS). There were also meetings with key staff from the executing agency and with the project team. The fiduciary risk identified was a need to strengthen procurement and financial management with staff that has experience following IDB policies and implementing various fiduciary processes. The risk associated with this operation was determined to be medium. Risk mitigation measures were included in the risk matrix.

3.2 The risk evaluation performed during program design identified a medium risk of delays in fiduciary processes due to: (i) the lack of procurement staff with experience following IDB policies; and (ii) the lack of staff trained on and familiar with updated fiduciary management policies, causing weaknesses in the financial management area. To mitigate these risks, the following measures have been considered: (i) retaining a national or international consultant who has specialized technical knowledge of procurement, as provided in the operation's Procurement Plan; and (ii) having the Bank provide training on procurement and financial management to the execution unit staff involved in program execution.

IV. Considerations for the Special Provisions of the Loan Contract

4.1 It is important to take into account the conditions precedent to the first disbursement and the execution conditions included in the loan proposal's executive summary.

4.2 The execution unit will submit audited annual and final financial statements for the project, with specific terms of reference acceptable to the Bank, within 120 days following the end of each fiscal year for the borrower, during the original disbursement period or any extensions thereof. The final audit report will be submitted within 120 days following the end of the original disbursement period or any extensions thereof.

4.3 The equivalence in the disbursement currency or approval currency of an eligible expense incurred in the borrower's local currency will be determined for accounting and expense justification purposes by using the exchange rate in effect on the date on which the approval currency or disbursement currency is converted to the borrower's local currency [Article 4.10(b)(i) of the General Conditions of the loan contract]. The agreed-upon exchange rate to be used for determining the equivalence of expenses incurred in local currency and chargeable to the local contribution or of expense reimbursements chargeable to the loan proceeds will be the exchange rate in effect on the effective date on which the borrower, the executing agency, or any other legal entity or individual that has been delegated the authority to incur expenses makes the respective payments to the contractor, provider, or beneficiary.

V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

5.1 **Procurement execution.** Procurement will be carried out in accordance with the Policies for the Procurement of Works and Goods Financed by the IDB (document GN-2349-9) and the Policies for the Selection and Contracting of Consultants Financed by the IDB (document GN-2350-9). Procurement and contracting carried out by public entities financed under this project will be executed in accordance with the aforementioned policies. The threshold for the use of international competitive bidding will be made available to the borrower through the executing agency at www.iadb.org/procurement. Below this threshold, the selection method will be based on the complexity and characteristics of the procurement or contracting, which will be included in the Bank-approved Procurement Plan.

5.2 **Procurement of works, goods, and nonconsulting services.** Works, goods, and nonconsulting services[1] arising under the project and subject to international competitive bidding will be procured using the standard bidding documents issued by the Bank. Bidding processes subject to national competitive bidding (NCB) will be executed using national bidding documents agreed upon with the Bank (or satisfactory to the Bank if not yet agreed upon). The Project Team Leader is responsible for reviewing the technical specifications.

5.3 **Selection and contracting of consultants.** Consulting service contracts arising under the project will be executed using the standard request for proposals issued by the Bank or agreed upon with the Bank, regardless of the amount of the contract (or satisfactory to the Bank if not yet agreed upon). The Project Team Leader is responsible for reviewing the terms of reference.

5.4 **Selection of individual consultants and consulting firms.** Selection will be carried out in accordance with the Policies for the Selection and Contracting of Consultants Financed by the IDB (document GN-2350-9).

5.5 **Ex ante review of procurement.** The Bank will review the selection and procurement processes as set forth in the Procurement Plan. At any time during project execution, the Bank may modify the review modality for these processes, by providing advance notice thereof to the borrower or the executing agency. Any changes approved by the Bank will be reflected in the Procurement Plan.

5.6 **Domestic preference.** No margin of domestic preference will apply.

5.7 **Use of the country procurement system.** In view of IDB Board approval of the use of the subsystems for electronic reverse auctions and electronic price lists for framework agreements in Peru, these subsystems will be used following the implementation of the actions described in the Agreement for the Partial Use of the Country Procurement System of the Republic of Peru along with the conditions described therein, and once the Procurement Plan has been amended accordingly. When the IDB Board grants its approval, advanced use of Peru's

[1] Under the Bank's procurement policies, nonconsulting services are treated as goods.

national public procurement system will be possible for Bank-financed operations that are executed by agencies included in this system. The implementation thereof will be subject to any potential recommendations.

5.8 **Initial Procurement Plan.** The executing agency will publish the Procurement Plan in the Procurement Plan Execution System or in the system determined by the Bank, and update it at least semiannually or as required by the Bank to reflect actual program execution needs and the progress made (required electronic link 3).

5.9 **Procurement supervision.** Ex post evaluations by the Bank will cover a sample of contracts based on technical and professional criteria and may be performed by consultants or external auditors. Once use of the country procurement system has been implemented, these arrangements may be updated based on the fiduciary risks.[2]

5.10 **Records and files.** Files are to be kept in the offices of the executing agency under conditions that ensure the integrity and security of the documents.

VI. FINANCIAL MANAGEMENT AGREEMENTS AND REQUIREMENTS

6.1 **Programming and budget.** Expenses related to program activities will have been assessed as viable under the rules issued by the Ministry of Economy and Finance (MEF). The National Multiyear Programming and Investment Management System (www.invierte.pe) is currently the system to use to streamline approval of investment projects and allow flexibility in their execution at all three levels of government. The preparation of the annual programming plan and budget will be based on provisions of the MEF's Public Budget Office.

6.2 The program's Multiyear Execution Plan will be drawn up along with the annual budget, taking the disbursement schedule into account. The budget assigned to the program will be approved by the MEF and the Congress of the Republic and reported annually to the Bank. The budget will be executed under the SIAF.

6.3 **Accounting and information systems.** The SIAF's project execution module will be used for program accounting and reporting, as it offers transparency and specific controls on budget execution. Using this module, financial reports can be generated, including disbursement requests, exchange rate controls, project financial statements, and other reports required by the Bank. Accounting will be on a cash basis and will follow international accounting standards and the directives issued by the National Public Accounting Office.

6.4 **Disbursements and cash flow.** The program will use the country's treasury system, following the directives issued by the National Debt and Treasury Office. Expenditures are subject to the budget and financial execution process, and data

[2] Once the reverse auction and framework agreement subsystems have been put into use in operations as part of the strategy for the use of Peru's country system, executed procurement processes will be systematically monitored and supervised by tracking and verifying the stability of the country system.

on their formalization under the rules applicable to each of the stages (commitment, accrual, warrant, and payment) will be reported in the SIAF's project execution module. The execution unit will keep a special bank account in U.S. dollars and another in soles (monetization), for management of the loan proceeds. The potential for MEF to start using a single treasury account for loan programs will be analyzed. Based on the current coordination with that ministry, this option could be implemented in the short term.

6.5 Disbursements will be based on the program's actual liquidity needs (financial planning). The execution unit will submit disbursement requests to the Bank, along with a financial plan that will initially reflect estimated expenditures for up to 180 days. Supporting documentation for disbursements will be provided for at least 80% of total cumulative balances pending justification, using the Bank's formats.

6.6 The records and supporting documentation for activities and transactions will be subject to ex post review by the external auditors. All documents and records will be kept for a period of at least three years from the date of the last disbursement. Any Bank-ineligible expenditures will be repaid from the local contribution.

6.7 **Internal control and internal audit.** The control environment, control activities, communication and information, and monitoring of the activities of the executing agency/execution unit will be governed by the country's laws and regulations, which are based on the Law on the National Control System and the Office of the Comptroller General of the Republic (CGR).

6.8 MINEDU's organizational structure includes an institutional control entity. This office will be responsible for internal and external control, pursuant to the Law on the National Control System and the CGR. It will receive a copy of the external audit reports via the Government Audit System designed by the CGR, which it can use to perform inspections.

6.9 **External control and reporting.** In the framework of the role of the CGR (lead agency in the National Control System) and the regulations governing it, external audits of projects are outsourced to independent audit firms acceptable to the Bank. Eligible independent audit firms are evaluated periodically by the Bank. The CGR authorizes the executing agency/execution unit to select and contract an independent audit firm in accordance with Bank policies for the entire project execution period, including any extensions of the final disbursement period. A tier I or II independent audit firm will be selected.

6.10 The project financial statements include: cash flow statement, cumulative investment statement, notes on those statements, and the declaration by project management (executing agency/execution unit). The audit report will include the evaluation of the internal control system. The cost of the external audits will be covered from local counterpart resources. However, the process of retaining and selecting an eligible audit firm will follow the Bank's policies and procedures, during the planned years of loan execution.

6.11 **Financial supervision plan.** The plan may be adjusted in accordance with project execution and the external audit reports.

Table 1. Supervision plan

Activities	Nature and scope	Frequency
Financial	Review of the portfolio with executing agency and MEF.	Twice per year
	Financial audit and delivery of financial statements.	Annual and final
	Review of disbursement requests and attached reports.	Four per year
	Inspection visit/Review of program progress/Analysis of control environment at the executing agency.	Annual

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-__/18

Peru. Loan ____/OC-PE to the Republic of Peru
Program for the Improvement of the Quality
and Relevance of University and Technical
Higher Education Services at the
National Level

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 Peru, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a Program for the Improvement of the Quality and Relevance of University and Technical Higher Education Services at the National Level. Such financing will be for the amount of up to US$75,000,000 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 ___ _____ 2018)

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