

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

## **BRAZIL**

### **PROGRAM TO ACCELERATE EDUCATIONAL PROGRESS IN AMAZONAS STATE (PADEAM)**

**(BR-L1328)**

### **LOAN PROPOSAL**

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ELECTRONIC LINKS	
<b>REQUIRED</b>	
1.	Annual work plan (AWP) <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37283363">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37283363</a>
2.	Monitoring and evaluation arrangements <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37280736">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37280736</a>
3.	Complete procurement plan <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37285034">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37285034</a>
4.	Environmental and Social Management Report (ESMR) <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37292813">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37292813</a>
<b>OPTIONAL</b>	
1.	Draft Operating Regulations <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37285161">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37285161</a>
2.	Economic analysis <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37285179">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37285179</a>
3.	Itemized budget <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38027968">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38027968</a>

## ABBREVIATIONS

AFI	Integrated Financial Management System
AVA	Virtual learning environment
CETI	Centros de Educación de Tiempo Integral [Extended Schedule Education Centers]
IBGE	Brazilian Institute of Statistics
IDEB	Brazilian Education Quality Index
INEP	Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira [Anísio Teixeira National Institute of Education Studies and Research]
MEC	Ministry of Education
OC	Ordinary Capital
OEL	Optional electronic link
PMU	Program Management Unit
PNE	National Education Plan
PRODAM	Processamento de Dados do Amazonas, S.A.
REL	Required electronic link
SADEAM	Amazonas School Performance Evaluation System
SEDUC	State Secretariat of Education
SEEPMT	State On-site Technology-Mediated Instruction System
SIGPRO	Project Management System
SIRR	Social internal rate of return
WAL	Weighted average life

## PROGRAM SUMMARY

### BRAZIL

### PROGRAM TO ACCELERATE EDUCATIONAL PROGRESS IN AMAZONAS STATE (BR-L1328)

Financial terms and conditions					
<b>Borrower:</b> Amazonas State <b>Guarantor:</b> Federative Republic of Brazil <b>Executing agency:</b> Amazonas State Secretariat of Education			<b>Flexible Financing Facility *</b>		
			Amortization period:		25 years
			Original WAL:		15.25 years
			Disbursement period:		5 years
Source	Amount (US\$)	Grace period:		5.5 years	
		Inspection and supervision fee:		**	
IDB (Ordinary Capital)	151,180,000	Interest rate:		LIBOR-based	
Local	121,826,000	Credit fee:		**	
Total	273,006,000	Approval currency:		U.S. dollars	
Program at a glance					
<b>Program objective/description:</b> The general objective of the program is to expand coverage and improve school performance of basic education students in Amazonas State (paragraph 1.11).					
<b>Special contractual conditions precedent to the first disbursement of the loan:</b> The borrower will demonstrate to the Bank's satisfaction that: (i) the Program Management Unit (PMU) has been created by a Law approved by the State Executive Branch, and that the Operating Regulations have entered into force by means of an order of the Secretary of Education (paragraph 3.2); (ii) the Integrated Financial Management System (AFI) and the Project Management System (SIGPRO) have been implemented and are capable of recording and generating the reports required by the Bank (paragraph 3.2); (iii) the executive coordinator of the PMU has been appointed by Governor's Decree (paragraph 3.2); (iv) the Special Bidding Commission (CEL) has been created by Governor's Decree (paragraph 3.6); and (v) the assistant sector coordinator for finance and procurement has been selected by Governor's Decree (paragraph 3.6).					
<b>Other special contractual execution conditions:</b> A mechanism for selecting the participating communities will be submitted, for the Bank's no objection, as a condition precedent to the commitment of resources for the expansion of the State On-site Technology-Mediated Instruction System (SEEPMT) (paragraph 1.12).					
<b>Exceptions to Bank policies:</b> None.					
<b>Project qualifies as:</b>	SEQ <input checked="" type="checkbox"/>	PTI <input checked="" type="checkbox"/>	Sector <input checked="" type="checkbox"/>	Geographical <input type="checkbox"/>	Headcount <input type="checkbox"/>

(\*) Under the Flexible Financing Facility (FN-655-1), the borrower has the option of requesting changes in the amortization schedule, as well as currency and interest rate conversions. In considering such requests, the Bank will take operational and risk management considerations into account.

(\*\*) 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 provisions of the Bank's policy on lending rate methodology for Ordinary Capital loans.

## I. DESCRIPTION AND RESULTS MONITORING

### A. Background, problems, and rationale

- 1.1 The 2011-2020 Brazilian National Education Plan (PNE) sets ambitious objectives for the country, including:<sup>1</sup> (i) universal education for the age group between 15 and 17 years by 2016; (ii) 9 years of universal basic education for the entire group between 6 and 14 years of age; (iii) literacy for all children up to 8 years of age; (iv) guarantee that all basic education teachers have advanced training; and (v) improved school performance indicators. The State of Amazonas, located in the North Region, is the largest state in terms of area, but its educational situation lags considerably behind the average for the country, and for other states of that region and the Northeast Region.<sup>2</sup> Amazonas has a population of 3.5 million, with 60% of the total concentrated in the Manaus metropolitan region. Most of the territory is covered by jungle, where 21% of the population lives, scattered among 6,100 rural and riverside communities (2010 census, Brazilian Institute of Statistics (IBGE)). Owing to this population distribution, the extensive distances, and its peculiar geographical features, the Amazonas State faces major challenges in serving the school-aged population.
- 1.2 Given how functions are divided into three spheres of action in Brazil (federal, state, município), the Amazonas State Secretariat of Education (SEDUC) has responsibility for secondary education although it also offers elementary education, especially the last cycle.<sup>3</sup> Serving the low socioeconomic strata,<sup>4</sup> it has 1,117 educational facilities, 20,000 regular teachers, 8,000 temporary teachers, and 474,000 students: 274,000 in elementary education, 166,000 in secondary, and 34,000 in youth and adult education (SEDUC, 2012 enrollment figures). In relative terms, the Amazonas state network has made the most significant progress since the Education Quality Index (IDEB) was instituted in 2005 throughout Brazil.<sup>5</sup> In the last elementary education cycle, the IDEB rose from 2.6 in 2005 to 3.9 in 2011 (47% growth), three times higher than the national average, which ranged from 3.3 to 3.9; this led Amazonas State to move from a ranking of twenty-first to ninth out of the 27 states. Secondary education experienced 49% growth, from 2.3 to 3.4,

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<sup>1</sup> [http://portal.mec.gov.br/index.php?option=com\\_content&view=article&id=16478&Itemid=1107](http://portal.mec.gov.br/index.php?option=com_content&view=article&id=16478&Itemid=1107).

<sup>2</sup> [Education sector note](#): included in the country strategy with Brazil (2012-2014), document GN-2662-1.

<sup>3</sup> Elementary education covers nine years of schooling (ages 6 to 14) and is divided into 2 cycles: first to fifth grades, and sixth to ninth grades. The regular and vocational tracks of secondary education are each three years long. Together with early childhood education, they make up basic education. Elementary education is a primary responsibility of the municípios, while secondary education is a state responsibility. In Amazonas State, 424,000 students attend elementary education in the municipal school networks.

<sup>4</sup> Some 51.8% of elementary education students are below the poverty line. 2010 census, IBGE.

<sup>5</sup> The IDEB has a scale from 0 to 10. It comprises a performance indicator such as Prova Brasil (mathematics and language tests administered every two years, in fifth and ninth grades of elementary education, and in the third year of secondary) and a promotion indicator (pass rate). See: <http://portal.inep.gov.br/web/portal-ideb/o-que-e-o-ideb>.

or 3.7 times higher than the national average, which rose from 3 to 3.4. Secondary education thus moved from last place in 2005 to tenth place nationwide. However, to consolidate this growth, significant challenges must be met.

- 1.3 In Amazonas State, the population over 25 years of age has received 7.3 years of schooling, while only 50% of 16-year-olds completed elementary education, compared with 49% in the North Region and 63% in Brazil as a whole; only 36% of 19-year-olds completed secondary education (36% North Region and 50% in Brazil). This indicates low levels of general enrollment, and coverage and promotion indicators that are lower than the national average, as can be seen in Table I-1 below.

**Table I-1**  
**Coverage and pass indicators and rates 2010 (%)**

	Net enrollment		Pass		Over-age		Dropout	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
Amazonas State	89	39	82	75	41	50	7	14
North Region	88	39	80	74	40	50	7	14
Brazil	91	50	82	77	29	34	4	10

Source: Ministry of Education (MEC)/Anísio Teixeira National Institute of Education Studies and Research (INEP)

- 1.4 With regard to learning achievement, the percentage of students with proficiency in Portuguese and mathematics is similar to the average for the North Region, but lower than the still unsatisfactory national average<sup>6</sup> (See Table I-2).

**Table I-2**  
**Student proficiency according to Prova Brasil 2009 (%)**

	Fifth grade elementary education		Ninth grade elementary education		Third year secondary education	
	Port.	Math.	Port.	Math.	Port.	Math.
Amazonas State	25.3	20.8	21.2	7.9	N.A.	N.A.
North Region	25.4	20.1	26.3	8.3	22.1	4.9
Brazil	34.2	32.6	26.3	14.8	28.9	11.0

Source: MEC/INEP

- 1.5 Studies conducted in Brazil show that educational underachievement, due to low learning achievement and high failure rates (13% in the last years of elementary

<sup>6</sup> The following are the scores for Portuguese proficiency: 200 for fifth grade, 275 for ninth grade, and 300 for third year of secondary school. For math, they are 225, 300, and 350, respectively.

education), is the main cause for student dropout in secondary school.<sup>7</sup> Educational underachievement is particularly serious in Amazonas State, where more than 50% of secondary students are behind in each year of that level of education; the situation is even outside the state capital area. (See Table I-3).

**Table I-3**  
**Students with educational underachievement in secondary education (2012)**

	First year		Second year		Third year		Total	
	%	Students	%	Students	%	Students	%	Students
Manaus	47.3	16,053	47.2	13,083	46.8	11,315	47.1	40,451
Interior	56.9	18,016	57.3	15,203	55.2	12,252	56.6	45,471
Amazonas State	52.1	34,069	52.3	28,286	51.0	23,567	51.8	85,922

Source: SEDUC

- 1.6 In fact, the dropout process begins in early adolescence, and even earlier, due to deficiencies in basic literacy education, which results in difficulties in reading and understanding texts at the end of that cycle. According to a recent study, Amazonas State students most seriously affected by low academic achievement in elementary education are poor, have parents with low levels of schooling, and are members of afro-descendant populations.<sup>8</sup> It is very difficult to reverse this trend for many young people entering secondary school. Thus, those who performed poorly in elementary school, have the lowest socioeconomic status, and are attending the first year of secondary school are most likely to drop out.<sup>9</sup> Moreover, the first two factors are the main reasons for students not enrolling in secondary school at all.<sup>10</sup> Therefore, it is essential to ensure not only that students complete elementary education, but that they master the minimum content so they can cope with the curriculum and the methodological challenges of secondary school. Schools of poor quality also impact the likelihood of students dropping out.<sup>11</sup> Given these indicators on educational underachievement, low learning achievement, and high failure rates, SEDUC implemented a school enrichment program for elementary education (Portuguese language, mathematics, and science) that served 9,000 students in 2012. In addition, SEDUC offers the Avanzar accelerated learning program, which

<sup>7</sup> Fernandes, Reynaldo, 2010, *EM: Como aumentar a atratividade e evitar a evasão? Linhas de pesquisa 2009/2010*, Instituto Unibanco.

<sup>8</sup> Willms, Tramonte, Duarte, and Bos, Assessing educational equality and equity with large scale assessment data: Brazil as a case study, February 2012, Technical Note IDB-TN-389, IDB Education Division.

<sup>9</sup> Fernandes, Reynaldo, 2010, *EM: Como aumentar a atratividade e evitar a evasão? Linhas de pesquisa 2009/2010*, Instituto Unibanco.

<sup>10</sup> Gremaud, Amaury, 2010, *A relação entre abandono escolar no EM e o desempenho no EF brasileiro. Linhas de pesquisa 2009/2010*, Instituto Unibanco.

<sup>11</sup> Hanushek, E.; Hitomi, K., and Lavy, V. 2006. Do students care about school quality? Determinants of dropout behavior in developing countries. NBER Working Paper (12737).



focuses only on the last cycle of elementary education, and aims to correct the age-grade distortion of 11,000 beneficiary students.<sup>12</sup> Due to the magnitude of the problem, these activities need to be expanded.

- 1.7 Two strategies have been developed to address the challenge of increasing coverage. Twenty-five extended-day educational centers in the urban area are serving 14,000 elementary and secondary school students. The results look promising: students in this program scored better than the various types of regular-schedule schools.<sup>13</sup> For the rural areas, in 2007 SEDUC created the State On-site Technology-Mediated Instruction System (SEEPMT), which by 2011 had reached 25% of the 6,100 rural communities in Amazonas State, serving 26,000 students, 80% of them in secondary school. This system is based on a center that produces educational television programs that are broadcast through a satellite network to communities too small to justify the opening of a school, and which would otherwise not receive educational services. An onsite tutor is stationed at each school, and is responsible for the connections, for helping students, and for managing the classroom. Teachers teach their classes from the SEDUC Media Center in Manaus, using technologies that provide real-time interactivity in video conferences, Internet access, content, and applications. This system also provides educational reinforcement classes, training for the tutors, and teacher training at state network schools. The findings of the Amazonas School Performance Evaluation System (SADEAM) show that the performance of third-year secondary students in those communities is 14% lower than for students who attend schools in their districts. In addition, over a five-year period, SEDUC has developed a collection of teaching materials produced or compiled at the Media Center. Approximately 10,000 hours of class recordings from the last five years for all subject areas of the last cycle of elementary and secondary education are housed there. This valuable material needs to be reviewed and organized in order to make it available to teachers and students through the creation of a learning portal, the Virtual Learning Environment (AVA), with specific materials for the North Region. Nonetheless, in order to meet the objectives of universal education mentioned in paragraph 1.1, these strategies need to be expanded.
- 1.8 With regard to the teaching staff, recognized as the most important educational resource,<sup>14</sup> although improvements were made in the last decade, only 60% of elementary school teachers have advanced training. The figure is 90% for secondary education, which is still lower than the 100% targeted in the PNE.<sup>15</sup> In

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<sup>12</sup> SEDUC, 2012.

<sup>13</sup> Sistema de Evaluación del Desempeño Educativo de Amazonas (SADEAM) [Amazonas School Performance Evaluation System], 2009.

<sup>14</sup> McKinsey & Company. 2007. "How the World's Best-Performing School Systems Have Come Out on Top" and Rockoff, J. 2004. "The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data." American Economic Review, Papers and Proceedings.

<sup>15</sup> SEDUC and INEP.

2011, SEDUC held competitions to select new teachers, a key process in the efforts to expand coverage and increase quality, which resulted in the hiring of 4,500 teachers. These competitions replaced 56% of temporary, underqualified teachers, and included new criteria in addition to an evaluation of teachers' background and subject-matter knowledge, such as a writing test, and an assessment of the candidates' teaching skills. For the mandatory three-year probation period, a support and evaluation system was established with four tools that will be applied annually: (i) an in-class evaluation and observation by school directors and education coordinators; (ii) a self-evaluation by the teacher; (iii) an evaluation of the in-service training received, including educational policy, legislation and management, teaching-learning processes, and the use of large-scale assessment tools; and (iv) an evaluation of teaching practice. In order to be confirmed on SEDUC's list at the end of the probation period, teachers must have scored an average 60%, with a minimum of 50% in each category. This new methodology is in its first year of operation and is expected to be used with 2,000 new teachers in 2013, and for the competition for 9,000 new vacancies in 2013. Many of the actions undertaken can be used to serve and support the network's teachers. For example, according to IDEB data for 2011, the performance of 131 schools (23% of the total) is 20% lower than the average. Students at these schools face daunting challenges to improve their school progress indicators, and therefore require specific and better targeted teaching support from SEDUC.

- 1.9 SEDUC management has numerous problems. There is no state-wide management system that makes it possible to identify and correct problems related to student and teacher absenteeism, performance, and timely school progression. The Computerized School Management System (SIGEAM) still does not include educational indicators such as, for example, students' periodic grades, or those of the SADEAM. With regard to SADEAM, it was launched in 2008 for mathematics and Portuguese. It is universally administered only in the state network, in fifth and ninth grades of elementary school, and in extended schedule schooling for secondary school. However, SEDUC does not have the personnel with the skills necessary to analyze results or to advise the municípios and schools on how to improve student performance. Moreover, no integrated systems or practices exist that take the various dimensions of the educational process into account, such as enrollment, student and teacher attendance, condition of infrastructure; nor are there any that use performance indicators as a management tool. Considering these challenges and the determination to consolidate the positive progress of the last six years, Amazonas State decided to ask the Bank for support in developing a program in this area.
- 1.10 **Relationship with the Bank's country strategy with Brazil.** The program is framed within the Bank's country strategy with Brazil 2012-2014 (document GN-2662-1), under which the strategic objective of promoting social inclusion in the priority sector of education seeks to: (i) improve the quality of basic education through teacher training and development, and upgrade and make better use of

available evaluation instruments; (ii) expand the coverage of secondary education by reforming educational institutions, procuring and developing educational materials, and qualifying teachers; and (iii) develop the skills in secondary education necessary to improve the employability of young people. The program is also consistent with the objectives of the Ninth General Capital Increase (GCI-9) (document AB-2764), as it contributes to the target of poverty reduction and equity enhancement, and the priority areas of the Bank's strategy on social development (document GN-2241-1) associated with improving the quality of schooling and youth programs. The program will be considered in the 2013 programming, which is still in preparation.

## **B. Objectives, components, and cost**

- 1.11 The general objective of the program is to expand coverage and improve school performance of basic education students in Amazonas State. It will have three components.
- 1.12 **Component 1. Expand the coverage of basic education (US\$102.8 million).** The objective is to expand the supply and improve the infrastructure of state-provided basic education, by financing the following activities: (i) construction and equipping of 12 Extended Schedule Education Centers (CETI), and adaptation and equipping of an additional 20 school facilities for that model, thereby adding space for 18,000 students to the state network, based on the estimated enrollment for the new centers; and (ii) expansion of SEEPMT coverage to an additional 560 schools, representing 1,500 communities and serving 15,000 new students. This will require the contracting of satellite connectivity services, installation of communications antennas, provision of technology kits,<sup>16</sup> adaptation of classrooms, and the contracting and training of tutors for each school. It will also involve strengthening and expanding the AVA, which provides access to educational materials in electronic format, improves technical assistance for schools, and the construction of the new Media Center, scaled to serve the expected educational demand. A mechanism for selecting the participating communities will be submitted, for the Bank's no objection, as a condition precedent to the commitment of resources for the expansion of the SEEPMT.
- 1.13 **Component 2. Improve progression, completion, and the quality of basic education (US\$15.9 million).** The objectives of this component are to improve academic achievement indexes, reduce age-grade distortion, and strengthen student performance in Amazonas State. To this end, the component will finance the following activities: (i) implementation of a learning acceleration and educational reinforcement program. The first part will serve 80,000 secondary students in order to correct the age-grade distortion;<sup>17</sup> the second will benefit 80,000 basic and

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<sup>16</sup> A technology kit includes: computer, printer, webcam, IP telephone, TV, and a voltage regulator.

<sup>17</sup> Priority will be given to students in the first year of secondary school who are more than two years over-age; they will be assigned to special learning acceleration program classes so they can complete secondary school more rapidly.

secondary education students who will receive additional support for Portuguese, mathematics, and other subjects;<sup>18</sup> (ii) implementation of a coaching system to facilitate integration into the teaching profession, provide in-service training to new teachers, and evaluate teachers during the probation period; and (iii) assistance for low-performing schools through a system of management support for directors, and teaching support for teachers.

- 1.14 **Component 3. Manage, monitor, and evaluate the school network and the project (US\$28.5 million).** This component will strengthen SEDUC's management and monitoring capacities through the following activities: (i) redesign of administrative processes between SEDUC, regional units, and schools, by implementing new modules in the management system, such as the digital diary, teacher profile and career, and strategic information for the secretariat and school levels, including the equipment needed for its operation; (ii) expansion of SADEAM to include new subjects, the municipal networks, and indigenous education, with special attention on returning and using its results in the school networks and in the schools, and strengthening the analytical teams and educational statistics; and (iii) design and implementation of the evaluations of the program's processes and impact, in addition to the evaluation of certain SEDUC actions.
- 1.15 **Program administration (US\$3.2 million).** The following provisions were identified in order to give SEDUC the capacity to execute the program: (i) creation of the execution unit, the procurement of goods for its operation, and management support services; and (ii) the contracting of external audit services.
- 1.16 **Cost and financing.** The total cost of the program is US\$273.006 million, with US\$151.18 million (55.4%) financed with the Bank's Ordinary Capital resources, and US\$121.826 million (44.6%) in local counterpart funds, as shown in Table I-3. For further details, see the Itemized Budget ([optional electronic link 3](#)).

**Table I-3**  
**General budget, by component (thousands of US\$)**

Description	IDB	Local	Total	%
Component 1. Expand the coverage of basic education	102,800	33,970	136,770	50.1
Component 2. Improve progression, completion, and the quality of basic education	15,990	54,960	70,950	26.0
Component 3. Manage, monitor, and evaluate the school network and the project	28,570	29,330	57,900	21.2
Program administration	3,820	3,566	7,386	2.7
<b>TOTAL</b>	<b>151,180</b>	<b>121,826</b>	<b>273,006</b>	<b>100</b>

<sup>18</sup> Priority will be given to students with lower academic performance, after diagnostic assessments conducted at the beginning of the year; the students thus identified will be assigned to tutoring classes in the subject areas where they need assistance.

### C. Key results indicators

- 1.17 Upon program completion, students' academic performance, measured by Prova Brasil (Portuguese and mathematics) and SADEAM (science), is expected to have improved.
- 1.18 The principal outcome indicators of Component 1, expansion of educational infrastructure, are: (i) a 6 percentage point increase in the net coverage of secondary school; and (ii) a 5 percentage point increase in the proportion of students of the last cycle of elementary and secondary school who attend the extended-day model. Component 2, to improve progression, completion, and educational quality, is expected to help improve the quality of the last cycle of elementary and secondary education: (i) a greater percentage of students who achieve minimum proficiency, in various proportions depending on the course and subject matter (see Annex II); (ii) a 10 percentage point reduction in age-grade distortion among secondary school students; (iii) improved learning achievement among students at low-performing schools; (iv) a 4 percentage point increase in the percentage of 19-year-olds who complete secondary school; and (v) a 4-point increase in the IDEB for secondary students. Lastly, Component 3, manage and monitor the school network and evaluation, is expected to improve school management through effective use of new tools.

## II. FINANCING STRUCTURE AND RISKS

### A. Financing instruments

- 2.1 The loan will include the following financial conditions: (i) LIBOR-based interest rate; (ii) 25-year amortization period; (iii) 5-year disbursement period; (iv) 5.5-year grace period; and (v) 15.25-year weighted average life (WAL). The following is the estimated disbursement schedule for the operation:

	Year I	Year II	Year III	Year IV	Year V	Total	%
IDB	24,270	46,600	37,080	33,970	9,260	151,180	55.4%
Local	12,950	27,210	29,780	30,310	21,576	121,826	44.6%
<b>TOTAL</b>	<b>37,220</b>	<b>73,810</b>	<b>66,860</b>	<b>64,280</b>	<b>30,836</b>	<b>273,006</b>	<b>100.0%</b>
%	13.6%	27.0%	24.5%	23.5%	11.3%	100.0%	

### B. Environmental and social risks

- 2.2 The potential impact will be low due to the scale of the works and their urban location. The CETIs (average size of 1,400 m<sup>2</sup>) and the SEEPMT facilities to be built may have small-scale, short-term, localized potential environmental impacts, typical of works of this type; they are therefore easy to control and manage using standard environmental procedures. Pursuant to the Environment and Safeguards Compliance Policy (Operational Policy OP-703), this program was classified as a category "B" operation, and the recommendations made were implemented and are

summarized in the Environmental and Social Management Report (ESMR) ([required electronic link 4](#)). Regarding the environmental licensing process, the works must comply with Brazilian environmental regulations, state construction regulations, the regulations of the municípios in which they will be built, and the specific management and monitoring requirements set forth in the program's Operating Regulations, in accordance with Operational Policy OP-703. With regard to the risk of disasters—mainly floods and possibly landslides—the location of the centers in risk areas will be prohibited, which will be explicitly set forth by the executing agency in the bidding documents, works contracts, and technical documentation submitted to the Bank before the works begin, in accordance with the Disaster Risk Management Policy (Operational Policy OP-704). In principle, the construction of these educational facilities is not expected to involve involuntary resettlement activities. However, should such a situation arise, the Involuntary Resettlement Policy (Operational Policy OP-710) will apply, under which the relevant plan will be drawn up, including appropriate economic compensation measures for the affected population.

- 2.3 The program will have positive social impacts due to the concentrated increases in coverage and secondary school completion rates, and the improvements in educational performance.

**C. Fiduciary risks**

- 2.4 The risk assessment exercise found that the bidding processes are slow, owing to their centralization in the general bidding commission. With regard to institutional capacity, it was found that, in fiduciary matters, SEDUC has insufficient knowledge of Bank regulations (financial, accounting, procurement, progress reports, and others), which could cause delays in execution. To mitigate these two factors, the following has been proposed: (i) establishment, by State Law, of a Program Management Unit (PMU) directly linked to the secretary, which will coordinate implementation; (ii) creation of a Special Bidding Commission (CEL) by Governor's Decree, and the contracting of additional technical and legal staff for goods and services procurement, the contracting of consultants, and training in the Bank's procurement policies, especially those associated with consulting and other services; and (iii) training for PMU and SEDUC staff involved in execution.

**D. Other risks**

- 2.5 **Delays in payments to suppliers.** Historically, payments to suppliers of state goods and services are often delayed; while processed by SEDUC, they are paid by the Finance Secretariat. This poses a risk to the program's reputation. To mitigate this risk, improvements will be made both in SEDUC's payment processes and in the coordination and programming of payments by the Finance Secretariat.
- 2.6 **Insufficient staff to implement Components 2 and 3.** As mentioned above, several actions will be implemented over the course of the program: learning acceleration in secondary school, educational reinforcement in elementary and secondary schools, support for teachers and for the management of low-performing

- schools, and implementation of new management system modules. The execution and monitoring of these actions may be jeopardized by insufficient staff or faulty coordination. Thus, the central team will be strengthened with the PMU, in particular the Department of Teaching Policy, which is responsible for the acceleration and reinforcement projects, and the Padre Anchieta Teacher Training Center, in charge of the program to support low-performing schools. For their part, the secretary, as the highest authority, and the PMU will establish routines for building consensus, planning, and monitoring program actions among participating departments. Training will also be provided to the central team and the regional teams in order to prepare them for their supervisory and support tasks.
- 2.7 **Possible shortage of tutors for the school enrichment projects.** Difficulties are expected in finding sufficient tutors for the reinforcement project outside of Manaus, the capital. This situation may be even more pressing for certain subject areas, such as science. To mitigate this risk, strategies will be designed for coordination and dissemination with teacher training universities and agencies that administer this type of program.
- 2.8 **Delays in delivery of new modules for the information system.** The new digital diary module and the interface with the program management system are two of the main actions to be undertaken for the information system. The first will make it possible to record attendance, grades, and SADEAM test results online, while the second will support program management. To minimize delays in implementing these modules, SEDUC will prepare appropriate terms of reference with detailed timetables, and will designate a team to work on this task with the developer.
- 2.9 **Possible technical problems at rural schools.** Damage to any part of the technology kit could disconnect a school from the Media Center, preventing it from accessing the courses offered via videoconference and Internet, and impacting the school's educational agenda. To reduce the impact of such problems, a contingency plan will be prepared to provide tutors with alternative teaching mechanisms for when there is no connectivity, and technical support will be strengthened in order to increase response times for resolving technical problems in the schools.

### III. IMPLEMENTATION AND ACTION PLAN

#### A. Summary of implementation arrangements

- 3.1 **Executing agency.** The executing agency of the program will be Amazonas State, through SEDUC, which will be the official interlocutor for the program, both with the Bank and with other public and private organizations. A PMU will be created within SEDUC, under the direct supervision of SEDUC's Secretary. The PMU will be led by an Executive Coordinator and an assistant sector coordinator for finance and procurement and an assistant coordinator for educational projects. Within the scope of program activities, they will coordinate with all sectors of SEDUC to avoid a duplication of duties and responsibilities.

- 3.2 Financial execution and accounting administration will be the responsibility of SEDUC. The Integrated Financial Management system (AFI), used by all Amazonas State agencies, and the Project Management System (SIGPRO), used by the Project Management Unit of the Social and Environmental Program of Igarapés de Manaus (PROSAMIM), will also be used for this program. This system will meet the Bank's needs for accountability, disbursement requests, monitoring of work contracts, etc., and will have to be adapted to the characteristics of this program. The Operating Regulations, currently in preparation, will detail the program execution mechanism and establish the functions to be performed by both the PMU and the other internal areas of SEDUC, identifying institutional strengthening measures, and the need to expand their teams to ensure proper program execution. **As special conditions precedent to the first disbursement of the loan, the borrower will demonstrate, to the Bank's satisfaction, that: (i) the PMU has been created by a Law approved by the State Executive Branch and that the Operating Regulations have entered into force by order of the Secretary of Education; (ii) the AFI and SIGPRO systems have been implemented and make it possible to record and generate the reports required by the Bank; and (iii) the PMU's executive coordinator has been appointed by Governor's Decree.**
- 3.3 **Reports.** SEDUC will submit semiannual progress reports to the Bank, including information on its achievements and the problems addressed. In December of each calendar year, beginning the first December after the date the loan agreement enters into force, SEDUC will submit an annual work plan (AWP), with its corresponding procurement plan, for Bank approval, in accordance with previously agreed upon guidelines.
- 3.4 **Execution supervision system.** The program will adopt the Bank's supervision mechanisms. The program's supervision plan will be developed with the executing agency, taking into account the program report, the Results Matrix, the Operating Regulations, and the findings of the risk analysis, and validated during the start-up workshop. It will contain multiyear programming of the activities and resources required to obtain the expected outputs and outcomes.
- 3.5 **Program readiness.** The project profile for this operation was approved on 19 October 2012, for an amount of US\$151.182 million in Bank financing. Recommendation 1,329 of the External Financing Committee, dated 27 July 2012, set US\$151.182 million for the loan and a minimum of US\$121.826 million in counterpart funding. The final amounts of financing for this operation appear in Table I-3.
- 3.6 **Procurement.** Program works and goods will be procured, and consultants selected and contracted, in accordance with the policies for the procurement of works and goods (document GN-2349-9), and the policies for the selection and contracting of consultants (document GN-2350-9) financed by the IDB. The capacity assessment of the executing agency determined that ex ante review will be used for the first two processes financed entirely or partially by the Bank, for each type/method,



regardless of value, and all processes whose estimated cost exceeds the thresholds for international competitive bidding (ICB) as well as all direct contracting. As of the third process for values below those stipulated for ICB (or its equivalent for consulting services), the Bank may decide to use ex post review of the procurement and contracting processes. All program contracting will be carried out by SEDUC's Bids Center, and a CEL will be created for consultant contracting processes. The executing agency will use loan proceeds to hire a specialized procurement consultant for the PMU, who will be responsible for managing procurement processes, supporting the CEL, and participating in it as needed. **As a special condition precedent to the first disbursement of the loan, the borrower will demonstrate, to the Bank's satisfaction, that: (i) the CEL has been created by Governor's Decree; and (ii) the assistant sector coordinator for finance and procurement has been selected.**

- 3.7 The company Processamento de Dados do Amazonas, S.A. (PRODAM) is expected to be contracted directly for up to 60 months and the equivalent of up to US\$6.35 million for the activities under Component 3 related to the school management system and the adaptation and maintenance of SIGPRO, since it is a natural continuation of services previously provided by the firm as the executing agency of the information technology policy of Amazonas State<sup>19</sup> (document GN-2350-9, paragraph 3.10). As a condition for contracting PRODAM, it must demonstrate its capacity to deliver the outputs specified in the terms provided by SEDUC, and the compatibility of its costs with market practices.
- 3.8 **Advances of funds.** The loan proceeds will be disbursed as advances of funds.
- 3.9 **Audits.** The audits of the program's financial statements will be performed annually by a firm contracted for that purpose or by the Amazonas State Audit Office.
- 3.10 **Recognition of expenditures, retroactive financing, and advance procurement.** The Bank will recognize eligible expenditures, charged to the loan and to the local contribution, incurred during the 18 months prior to the loan approval date but after 19 October 2012 (approval date of the project profile). Expenditures charged to the loan will be for up to US\$5.2 million, 3.4% of the value of the loan. Expenditures charged to the local contribution will be for up to US\$5.1 million, 4.2% of the value of the local counterpart. In both cases, they will be undertaken in accordance with the Bank's procurement policies or substantially analogous procedures.

## **B. Summary of performance monitoring arrangements**

- 3.11 **Cost-benefit evaluation.** The cost-benefit analysis estimated the program's social benefits, related to the expansion of the supply of elementary and secondary education, both in the extended-schedule program and through the SEEPMT, the improvement in school completion indices resulting from the accelerated learning programs (which will reduce educational underachievement), the educational

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<sup>19</sup> Decree 16,604/1995.

reinforcement program, teacher training, and the benefits associated with better quality teaching in human capital formation. The ex ante assessment of the program's benefits indicates that the net present value is a positive US\$484 million, making the program viable. The social internal rate of return (SIRR) is 22.4%, higher than the discount rate, the opportunity cost of the program, representing another indicator of viability. Various scenarios, with less conservative assumptions, yield a SIRR of 25.2% (Economic analysis, [optional electronic link 2](#)).

- 3.12 **Monitoring, follow-up, and impact assessment.** In addition to the standard activities associated with a loan operation, including semiannual progress reports on each component and program performance reports associated with the agreed upon Results Matrix, a number of specific activities will be undertaken to strengthen SEDUC's monitoring capacities. First, the management system will be created, with a modular structure that will unify the existing databases (students, teachers, academic performance, infrastructure, and materials), add new functionalities, and make it possible to redesign and optimize management and monitoring processes. Second, starting in 2013, SADEAM coverage will be extended to the municipal networks and to other subject areas. It will be applied annually both in the municipal networks participating in the evaluation program, and in the state network, for third, fifth, seventh, and ninth grades of elementary education in even years, and third and seventh grades in odd years. It will be applied annually for the first and third years of secondary school. The practice of returning the results to managers and teachers and making use of them will be strengthened. To this end, the Educational Statistics Analysis Unit will be created to coordinate preparation of the tests, contract their administration, and analyze and deliver the results to the school network. This will make it possible to detect problems at the network, school, and individual student levels, and to take action to support schools and/or students that are not making adequate progress. Thus, this operation's monitoring strategy will not be limited to isolated and specific actions exclusive to the program; rather, it will make use of the same tools, systems, and practices that SEDUC will use routinely and that the program will help strengthen.
- 3.13 The program's impact assessment plan consists of the following evaluations: (i) assessment of the impact of extended schedule schooling, which will be a quasi-experimental evaluation. It will use administrative data from SEDUC and the results of Prova Brasil and SADEAM to assess if students who attend the extended-schedule schools perform better academically than students attending regular schools, and also to determine impact on other educational indicators such as the failure and dropout rates, and completion of elementary and secondary education. This assessment will be supplemented with a qualitative study to determine the differences between the teaching practices in extended-schedule schools and those in regular schools, and to assess the use of the additional time; (ii) impact assessment of the On-Site Technology-Mediated Instruction System. This evaluation will be also be quasi-experimental (instrumental variables) and will draw on administrative data from SEDUC and the results of Prova Brasil and SADEAM,

first, to characterize the students registered in the SEEPMT centers and, second, to study the academic performance and internal efficiency of students in communities having a SEEPMT center, compared to those in communities with regular onsite classes. In addition, a study will be made of the socioeconomic effects of the expansion of the educational supply through the Media Center in the communities where they are established, identifying changes in economic activities, migration, household income, and other socioeconomic variables. In both cases, the distance to the river basins will be used as an instrumental variable, as it creates an exogenous change in educational supply. Lastly, a qualitative study will be conducted to determine how the teaching/learning process takes place in the different situations; (iii) impact assessment of the program to support low-performing schools through teaching and management support. This evaluation will be quasi-experimental in nature (discontinuous regression), and will use the cut-off point that will determine which schools will participate in this activity, to create the treatment group and the control group. It will use SEDUC administrative data and the results of Prova Brasil and SADEAM to create the treatment and control groups, and to evaluate if students who attend beneficiary schools improve their academic performance (and other educational indicators) as compared to students in the control schools.

- 3.14 **Baseline.** The baseline for measuring the targets in the Results Matrix for performance achievement in mathematics and Portuguese in elementary and secondary school will be based on 2011 data from Prova Brasil, while for science in elementary and secondary school, it will be the data from SADEAM 2013. The impact assessments will be designed in the first half of 2013, and field work will begin in the first quarter of 2013 to collect primary data to supplement existing sources. Information from primary and secondary sources will be collected by means of the instruments described in the monitoring and evaluation plan ([required electronic link 2](#)).

**C. Post-approval activities**

- 3.15 **Preparation of terms of reference and bidding documents.** SEDUC will move forward with both in order to be able to begin implementing the priority consulting services as soon as possible.
- 3.16 **Identification of sites for the construction of CETIs.** SEDUC will select available sites on município or state property for the construction of these school units, for which construction plans already exist.

Development Effectiveness Matrix			
Summary			
I. Strategic Alignment			
1. IDB Strategic Development Objectives	Aligned		
Lending Program	Lending for poverty reduction and equity enhancement.		
Regional Development Goals	Share of youth ages 15 to19 who complete ninth grade.		
Bank Output Contribution (as defined in Results Framework of IDB-9)	(i) Students benefited by education projects (girls, boys) and (ii) Teachers trained.		
2. Country Strategy Development Objectives	Aligned		
Country Strategy Results Matrix	GN-2662-1	Improve the quality of basic education services.	
Country Program Results Matrix	Not Available	2013 Country Program Document in preparation.	
Relevance of this project to country development challenges (If not aligned to country strategy or country program)			
II. Development Outcomes - Evaluability	Highly Evaluable	Weight	Maximum Score
	9.7		10
3. Evidence-based Assessment & Solution	10.0	33.33%	10
4. Ex ante Economic Analysis	10.0	33.33%	10
5. Monitoring and Evaluation	9.1	33.33%	10
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	B		
IV. IDB's Role - Additionality			
The project relies on the use of country systems (VPC/PDP criteria)	Yes	Financial Management: (i) AFI and (ii) SIGPRO. Procurement: (i) Pregao Electronico and (ii) Acta de registro de precios.	
The project uses another country system different from the ones above for implementing the program			
The IDB's involvement promotes improvements of the intended beneficiaries and/or public sector entity in the following dimensions:			
Gender Equality			
Labor			
Environment			
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project			
The ex-post impact evaluation of the project will produce evidence to close knowledge gaps in the sector that were identified in the project document and/or in the evaluation plan	Yes	Assessment of effects with quasi experimental methodology on extended schedule, teacher coaching, induction to new teachers and secondary education provision with technology.	

The project aims to expand coverage in basic education and improve the quality of basic education provision which should reflect on higher enrollment rates at the normative age. The diagnosis is based on data on student learning and share of students in normative age. The factors identified as contributing to the problem are low socioeconomic status and a cumulative disadvantage that starts in the first grades of basic education. Empirical evidence of lags and magnitudes is provided taking into account characteristics specific to the State. The results matrix has a clear vertical logic and indicators are SMART, include baseline information or a clear plan to collect it, and target values.

There are three evaluation methodologies proposed to assess the effect of different program features on impact indicators. The evaluation for the increase in hours spent at school is planned to be undertaken with propensity score matching. The system of education provision through technology is planned to be evaluated with an instrumental variables methodology. In turn, the evaluation of induction for new teachers and coaching is planned to use regression discontinuity.

All risks in the operation are classified as "medium" and include slow bid processes, insufficient personnel to execute actions, low knowledge of IADB normative framework, lack of tutors, delays in information systems and possible technical failures. Mitigation measures include hiring specialized personnel, training, coordination with local universities to recruit tutors, appropriate terms of reference and the elaboration of contingency plans.

## RESULTS MATRIX

<b>Program objective</b>	The general objective of the program is to expand the coverage and improve school performance of basic education students in Amazonas State.
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Impact outcomes	Baseline	Final target	Comments
Improvements in average academic performance in Portuguese, mathematics, and science for students in the state elementary and secondary school network, measured by Prova Brasil and the Amazonas School Performance Evaluation System (SADEAM)	<p>Prova Brasil (2011) for Portuguese and mathematics, ninth grade of elementary; third year of secondary</p> <p>SADEAM (2013) for science, ninth grade of elementary; third year of secondary</p>	<p>Improvement in average academic performance of Prova Brasil (2017) and SADEAM (2017)</p> <p>Ninth grade elementary Portuguese: between 8% and 16% Mathematics: between 6% and 12% Science: between 6% and 12%</p> <p>Third year secondary Portuguese: between 7% and 16% Mathematics: between 6% and 15% Science: between 7% and 15%</p>	<p>Data from the 2011 Brazilian Education Quality Index (IDEB), which includes the Prova Brasil, are not yet available. The information is expected to be released in late 2012.</p> <p>Sources: <i>Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira</i> (INEP) for IDEB, and State Secretariat of Education (SEDUC) for SADEAM.</p>

	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final Target	Comments
<b>Component 1. Expand the coverage and improve the infrastructure of basic education</b>								
<b>Outputs</b>								
New Extended Schedule Education Centers (CETIs) in operation with extended schedules	0		12				12	In operation means: construction completed, basic equipment installed, and teaching staff appointed. Source: SEDUC administrative records; Amazonas State Official Journal.
Expanded/reformed elementary and secondary school facilities in operation with extended schedules	0					20	20	Expansion/reform completed. In operation means: basic equipment installed, and if necessary, additional teaching staff appointed. Source: SEDUC administrative records; Amazonas State Official Journal.

	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final Target	Comments
New units of the State Technology-Mediated Instruction System (Media Center) in operation	707	907	1,107	1,267	1,267	1,267	1,267	New units means schools served. In operation means: units equipped with the goods procured and installed, local tutors appointed, elementary and secondary school classes offered regularly for students in the state network. Source: SEDUC administrative records; Amazonas State Official Journal.
<b>Outcomes</b>								
Net secondary school coverage rate	39%						45%	Source: INEP, based on household survey by Brazilian Institute of Statistics (IBGE).
Percentage of students in the state elementary and secondary school system that attend CETIs and Extended Schedule (ETI) schools	3.2%						8.5%	Source: SEDUC administrative records (enrollment).
Number of students (elementary and secondary) served by the state technology-mediated instruction system	28,800	34,000	39,000	43,800	43,800	43,800	43,800	Source: SEDUC administrative records (enrollment and Media Center).
<b>Component 2. Improve progression, completion, and the quality of basic education</b>								
<b>Outputs</b>								
Secondary students participating in the learning acceleration program	0	0	25,000	20,000	20,000	15,000	80,000	Source: SEDUC administrative records.
Elementary and secondary students participating in educational reinforcement activities	0	0	10,000	15,000	20,000	35,000	80,000	Source: SEDUC administrative records.
Low-performing elementary and secondary schools participating in a teaching and management assistance project, with coaching	0	0	118	135	135	135	17	Source: SEDUC administrative records.

	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final Target	Comments
Elementary and secondary school teachers in probation stage who have received training through the Padre José de Anchieta Training Center (CEPAN)	0	6,500	6,500	11,000	9,000	9,000	15,500	Source: SEDUC administrative records, CEPAN
<b>Outcomes</b>								
Students in the state network who achieved learning proficiency each year in Portuguese (ninth grade of elementary (EE), third year of secondary (SE))	EE9 21.2% SE3 22.1%						EE9 31.2% SE3 32.1%	Sources: Prova Brasil (Ministry of Education and Culture/INEP). Baseline data will be adjusted when 2011 Prova Brasil results are released in late 2012. The results of Prova Brasil 2017 will be available in 2018.
Students in the state network who achieved learning proficiency each year in mathematics (ninth grade EE and third year SE).	EE9 7.8% SE3 4.9%						EE9 12.8% SE3 9.9%	Sources: Prova Brasil (Ministry of Education and Culture/INEP). Baseline data will be adjusted when 2011 Prova Brasil results are released in late 2012. The results of Prova Brasil 2017 will be available in 2018.
Students in the state network who achieved learning proficiency each year in science (ninth grade EE and third year SE).	EE9 (to be defined) SE3 6.9%						EE9 (2012 results + 5%) SE3 11.9%	Sources. EE9 and SE3: SADEAM (SEDUC AM). Baseline: EE9 will correspond to SADEAM 2012. SE3 will correspond to SADEAM 2011.
Age-grade distortion rate for secondary school.	51%	51%	51%	45%	41%	41%	41%	Sources: MEC/INEP.
Improvement in average academic performance in Portuguese and mathematics of low-performing elementary and secondary schools participating in a teaching and management assistance project, with coaching.	EE9 SE3 (% to be defined)	Baseline		Baseline + XX pp		Baseline + XX pp	Schools benefited by coaching program improve an additional XX percentage points	Source: IDEB (Ministry of Education and Culture/INEP) and SADEAM (SEDUC AM) Baseline: 2012, once schools have been selected. Final target: To be determined once schools have been selected.

	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final Target	Comments
							compared to schools in the control group.	
19-year-olds who have completed secondary school	36%	36%	36%	37%	38%	40%	40%	Sources: INEP based on the IBGE household survey
IDEA for secondary school.	3.4	3.6		3.8		4.0	4.0	Source: INEP.
<b>Component 3. Manage, monitor, and evaluate the school network and the project</b>								
<b>Outputs</b>								
Computerized School Management System (SIGEAM) set up, incorporating the data of the Amazonas School Performance Evaluation System (SADEAM)	0	0	0	1	1	1	1	Source: SEDUC Integrated Management System. SIGEAM set up means it is installed and operating in schools. Incorporating the data of SADEAM means that the data will be available on the same platform as SIGEAM.
Annual feedback reports of SADEAM results delivered to schools and teachers.	0	0	1	1	1	1	1	Source: SEDUC Integrated Management System.
Percentage of municipal schools, of those eligible, participating in SADEAM tests	0	64%	72%	79%	87%	95%	95%	Source: Administrative records of agreements entered into between municípios and SEDUC.
Percentage of SADEAM tests in the Ticuna language, out of the total of indigenous students of the Ticuna ethnic group in EE5 and EE9	0	0	0	75%	0	75%	75%	Source: SEDUC administrative records. (Municípios of Benjamin Constant, Santo Antônio do Içá, Tabatinga, and São Paulo de Olivença).
<b>Outcome</b>								
Percentage of schools with SIGEAM updated in terms of attendance data and grades.	0	0	30%	50%	75%	100%	100%	Source: SEDUC Integrated Management System.



## **FIDUCIARY AGREEMENTS AND REQUIREMENTS**

**Country:** Brazil  
**Program number:** BR-L1328  
**Name:** Program to Accelerate Educational Progress in Amazonas State (PADEAM)  
**Prepared by:** Mónica Merlo and Santiago Schneider (Financial Management Specialists) and Carlos Lago (Procurement Specialist)

### **I. EXECUTIVE SUMMARY**

- 1.1 The fiduciary management assessment was based on meetings held with the Bank's project team and the executing agency, and staff members of the Amazonas State Secretariat of Education (SEDUC). In addition, the preparatory documents for the operation and the Bank's experience with similar projects at the State government level, specifically the programs of the Social and Environmental Program of Igarapés de Manaus (PROSAMIM), were taken into account.
- 1.2 Based on the assessment of the executing agency, fiduciary agreements were formulated for procurement and financial management that will be applicable to program execution. The fiduciary contexts of the country and of the executing agency were also taken into account in establishing the fiduciary agreements; the most significant points are summarized in the paragraphs below.

### **II. FIDUCIARY CONTEXT OF BRAZIL**

- 2.1 Brazil has solid national fiduciary systems that facilitate and promote good management of administrative, financial, control, and procurement processes in line with the principles of transparency, economy, and efficiency. The Bank continues to work with the Brazilian government to strengthen these areas with a view to being able to make sustainable use of the country's fiduciary systems.

### **III. FIDUCIARY CONTEXT OF THE EXECUTING AGENCY**

- 3.1 The executing agency will be the Amazonas State Ministry of Education (SEDUC), working through a Program Management Unit (PMU) that will be created and linked directly to the office of the Secretary. This unit will be responsible for coordinating, planning, monitoring, and executing the activities related to the projects and actions financed with program resources. It will be responsible for the fiduciary administration of the operation's execution, including budget preparation, implementation and support for procurement processes, support for contract execution, authorization and recognition of expenditures, and making

the respective payments. The PMU will be the interlocutor of SEDUC. The Secretary of Education will be charged with the strategic coordination and technical orientation of the program's actions.

#### **IV. FIDUCIARY RISK EVALUATION AND MITIGATION MEASURES**

- 4.1 The risk assessment and institutional capacity assessment performed of SEDUC found insufficient knowledge of Bank regulations (financial, accounting, procurement, progress reports, and others) to be a fiduciary risk that could lead to delays in execution. To mitigate this risk, the following is proposed: (i) to continue using the SIGPRO project management system used by other Bank-financed programs, such as PROSAMIM; (ii) to create a PMU directly linked to the office of the Secretary, which will coordinate implementation; (iii) to create a Special Bidding Commission, contract its staff, and train them on the Bank's procurement policies; (iv) to appoint the personnel who will make up the PMU, including legal advisers, if necessary; and (v) to provide training for PMU members and SEDUC staff involved in execution.

#### **V. CONSIDERATIONS FOR THE SPECIAL CONDITIONS OF THE CONTRACT**

- 5.1 **Special conditions precedent to the first disbursement:** (i) creation of the Program Management Unit (PMU) by a Law approved by the State Executive Branch; (ii) entry into force of the Operating Regulations by means of an order of the Secretary of Education; (iii) evidence that the AFI and the SIGPRO have been implemented and are capable of recording and generating the reports required by the Bank; (iv) creation of the program's Special Bidding Commission; and (v) selection of the PMU's assistant sector coordinator for finance and procurement.
- 5.2 General stipulations will also be considered, for example, evidence of the budgetary allocations of both the local counterpart and the Bank's funding for the first year of program execution (Annual Budget Law), pursuant to Article 4.01(c), of the General Conditions.
- 5.3 **Other financial management requirements.** Supporting documentation for expenditures incurred will be reviewed on an ex post basis.

#### **VI. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION**

##### **1. Procurement execution**

- 6.1 The fiduciary agreements and requirements for procurement establish the provisions to be applied and observed for execution of all program procurement.
- 6.2 **Procurement of works, goods, and nonconsulting services.** The procurement of works, goods, and services financed entirely or partially with the proceeds of the

Bank's loan will be carried out in accordance with the policies for the procurement of works and goods financed by the IDB (document GN-2349-9).

- 6.3 **Procurement of works, goods, and nonconsulting services.** Contracts for works, goods, and nonconsulting services<sup>1</sup> arising under the project and subject to international competitive bidding (ICB) will be executed using the standard bidding documents (SBDs) issued by the Bank. Bidding processes subject to national competitive bidding (NCB) will be executed using bidding documents agreed upon with the Bank (or satisfactory to the Bank if not yet agreed upon). For the procurement of technical goods and services, the Bank will accept the ComprasNet and Banco do Brasil electronic reverse auction systems up to the threshold for ICB.
- 6.4 **Selection and contracting of consulting services.** The selection and contracting of consulting services for the program, financed entirely or partially with the proceeds of the Bank loan, will be carried out in accordance with the policies for the selection and contracting of consultants financed by the IDB (document GN-2350-9).
- 6.5 For contracting purposes, the executing agency will form shortlists of six selected companies that have met the technical requirements established in the notification of expression of interest.
- 6.6 The shortlist of processes whose estimated cost is less than or equivalent to US\$1 million per contract may be comprised, in its entirety, of national consulting firms. If the estimated cost of the contract is greater than or equal to that amount, the shortlist will be composed of six firms, with no more than two of the same nationality.
- 6.7 Individual consultants financed entirely or partially with the proceeds of the Bank loan will be selected and contracted in accordance with the provisions of Section V of document GN-2350-9.
- 6.8 **Recognition of expenditures, retroactive financing, and advance procurement.** The Bank will recognize eligible expenditures charged to the loan and the local counterpart, incurred during the 18 months prior to the loan approval date but after 19 October 2012 (approval date of the project profile). Expenditures charged to the loan will be for up to the amount of US\$5.2 million, or 3.4% of the value of the loan. Expenditures charged to the local counterpart will be for up to the amount of US\$5.1 million, or 4.2% of the value of the local counterpart. In both cases, the expenditures will be incurred in accordance with Bank procurement policies or procedures substantially analogous thereto.
- 6.9 **National preference.** National preference margins will not apply.

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<sup>1</sup> Pursuant to IDB procurement policies, nonconsulting services are treated like goods.

- 6.10 **Direct contracting.** The company Processamento de Dados do Amazonas, S.A. (PRODAM) is expected to be contracted directly for up to 60 months and the equivalent of up to US\$6.35 million for the activities under Component 3 related to the school management system and the adaptation and maintenance of SIGPRO. As the executing agency of the information technology policy of Amazonas State, it is solely responsible for providing such specialized services.<sup>2</sup> As a condition for contracting PRODAM, it must demonstrate its capacity to deliver the outputs specified in the terms provided by SEDUC, and the compatibility of its costs with market practices.
- 6.11 **Procurement thresholds.** The threshold determining the use of ICB will be made available to the borrower or, if applicable, the executing agency, on the website: [www.iadb.org/procurement](http://www.iadb.org/procurement). Below this threshold, the selection method will be determined in accordance with the complexity and characteristics of the procurement or contract, which will be reflected in the procurement plan approved by the Bank.

## **2. Initial procurement plan**

- 6.12 The current proposed procurement plan is attached. The version agreed upon may be updated during project execution according to the circumstances (procurement plan link).

## **3. Procurement supervision**

- 6.13 All ICB, direct contracting, and consultant selection processes for estimated amounts of over US\$1 million will be subject to ex ante review. Considering the characteristics of the project and the PMU's operating capacity, the remainder of the processes will be subject to annual ex post review. As of the annual audits, the Bank may modify the type of review indicated in the procurement plan.

## **4. Records and files**

- 6.14 The files will be located at the SEDUC offices under appropriate security conditions.

# **VII. FINANCIAL MANAGEMENT AGREEMENTS AND REQUIREMENTS**

- 7.1 The strategic and technical coordination of the program is the responsibility of SEDUC, which will define the program's guidelines and priorities.
- 7.2 SEDUC will be responsible for operational communication with the Bank and for supporting the operational execution of actions: (i) planning the execution of activities in accordance with the Program Execution Plan (PEP), the budgets, and the annual work plan (AWP); (ii) preparing and updating the initial program report, the AWP, the procurement plan, semiannual progress reports, evaluation

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<sup>2</sup> Decree 16,604/1995.

reports, and the project completion report; (iii) managing, monitoring, and supervising the execution of the AWP and the indicators of the program's Results Matrix; (iv) the program's budget and financial programming, and execution of monitoring activities; (v) implementing and maintaining a control system to ensure appropriate use of the loan proceeds, as well as maintaining and suitably preserving program documentation; (vi) executing and supervising the technical aspects of the program; (vii) executing the activities required for program procurement; (viii) preparing the technical files for execution of each component; (ix) formulating the technical specifications and terms of reference for procurement; (x) periodically preparing and submitting the program's progress reports, focusing on qualitative and quantitative aspects; and (xi) fiduciary administration of program execution, and responsibility for contracts and financial management, including providing resources and making payments, preparing financial reports, rendering accounts, preparing disbursement requests, and submitting information for audits.

- 7.3 The program's financial execution and accounting administration will be the responsibility of the Planning and Financial Management Department, which reports directly to the Secretary of Education. The systems to be used are the Integrated Financial Management (AFI) system, used by all entities of Amazonas State, and SIGPRO, used by the PROSAMIM Project Management Unit.
- 7.4 The budget for program activities will be approved by means of an appropriate legal instrument. The Bank will reimburse the program's eligible expenses in accordance with the agreements made and executed.

### **1. Accounting and information system**

- 7.5 Budgetary and financial execution of the program will be performed directly through SIGPRO, which will to be duly adapted for that purpose. Program components and subcomponents will be incorporated into the State accounting system.

### **2. Disbursements and cash flow**

- 7.6 The program will operate with funds advanced by the Bank to meet the program's liquidity needs. To that end, a disbursement request will be submitted, accompanied by a financial plan, indicating the funds needed for the intended period, previously agreed upon with the Bank. The executing unit will submit to the Bank an initial financial plan for the program, which will contain the disbursement schedule for the entire execution period. For subsequent advances (if any), it will be necessary to render accounts on at least 80% of the funds advanced, and to submit a new financial plan for the given period.
- 7.7 To render accounts of the loan proceeds and the local contribution, amounts paid in local currency will be converted to the currency of the operation, considering the following exchange provisions: (i) the exchange rate in effect on the date of

conversion of the funds disbursed in dollars into the currency of the borrower's country.

### 3. External control and reports

- 7.8 External control will be performed by the Amazonas State Audit Office or by a previously selected independent audit firm, contracted in accordance with the specific IDB policy and procedures for such purposes. Annually, the program will submit duly audited financial statements to the Bank, up to 120 days after the end of the fiscal year.

### 4. Financial supervision plan

Supervision activities	Supervision plan			
	Nature and scope	Frequency	Responsible party	
			Bank	Third party
Operational	Review the physical progress of the actions and activities of the components against disbursements	Semiannual	Technical team	
	Progress report review	Semiannual	Fiduciary and technical team	Executing agency
	Portfolio review	Annual	Technical team	
Financial	Ex ante and ex post review of disbursements and procurement	Annual	Fiduciary team	Fiduciary team and external auditors
	Financial and operational audit	Annual		Audit Office or external audit firm
	Review of disbursement requests and attached reports	Periodic	Fiduciary team	
	Inspection visit and analysis of internal controls and control environment	Annual	Fiduciary team	
Compliance	Annual allocation of budgetary resources required for program execution	Annual	Fiduciary team	Executing agency
	Submittal of audited financial statements and operational audit	Annual	Fiduciary and technical team	Executing agency
	Conditions precedent to first disbursement	Once	Fiduciary and technical team	Executing agency

### 5. Execution arrangements

- 7.9 Given the execution mechanism defined in the Proposal for Operation Development, a centralized administrative and financial execution arrangement is necessary, through SEDUC, which will be responsible for annual formulation of the budget and financial management, both for the local contribution and for the Bank's contribution. As mentioned above, a PMU will be created to coordinate the activities executed by SEDUC's departments and other line offices.