

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**BRAZIL**

**PROJECT TO IMPROVE QUALITY AND EXPAND COVERAGE OF  
THE MANAUS MUNICIPAL PUBLIC EDUCATION SYSTEM  
(PROEMEM)**

**(BR-L1392)**

**LOAN PROPOSAL**

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ELECTRONIC LINKS	
<b>REQUIRED</b>	
1.	Multiyear Project Execution Plan (PEP) <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38979365">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38979365</a>
2.	Monitoring and Evaluation Arrangements <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=39015123">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=39015123</a>
3.	Environmental and Social Management Report (ESMR) <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38968106">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38968106</a>
4.	Full Procurement Plan <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38968486">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38968486</a>
<b>OPTIONAL</b>	
1.	Draft Operating Regulations <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38968381">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38968381</a>
2.	Economic Analysis <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=39017964">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=39017964</a>
3.	Itemized Budget <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=39015191">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=39015191</a>
4.	Instituto Ayrton Senna <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38968407">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38968407</a>
5.	Instituto Aquila <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38968418">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38968418</a>
6.	IDB activities in Brazil <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=39015006">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=39015006</a>

## ABBREVIATIONS

CMEI	Centro Municipal de Educação Infantil [Municipal early childhood education facility]
CML	Comissão Municipal de Licitações [Municipal tendering commission]
EMEF	Escola Municipal de Ensino Fundamental [Municipal basic education school]
IAS	Instituto Ayrton Senna
IBGE	Instituto Brasileiro de Geografia e Estatística [Brazilian Institute of Geography and Statistics]
IDEB	Índice de Desenvolvimento da Educação Básica [Basic Education Performance Index]
INEP	Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira [Anísio Teixeira National Institute for Educational Studies and Research]
MEC	Ministry of Education
PISA	Program for International Students Assessment
PMU	Program management unit
PNAD	Pesquisa Nacional por Amostragem de Domicílios [National survey by household sampling]
PNE	Plano Nacional de Educação [National Education Plan]
SADEAM	Sistema de Avaliação do Desempenho Educacional do Amazonas [Amazonas school performance evaluation system]
SAEDE	Manaus educational performance evaluation system
SEDUC	State Secretariat of Education
SEMED	Municipal Education Department
SIRR	Social internal rate of return
TCE-AM	Tribunal de Contas do Estado do Amazonas [Audit Office of the State of Amazonas]

## PROJECT SUMMARY

### BRAZIL

## PROJECT TO IMPROVE QUALITY AND EXPAND COVERAGE OF THE MANAUS MUNICIPAL PUBLIC EDUCATION SYSTEM (PROEMEM) (BR-L1392)

Financial Terms and Conditions					
<b>Borrower:</b> Municipality of Manaus <b>Guarantor:</b> Federative Republic of Brazil <b>Executing agency:</b> Municipality of Manaus through the Municipal Education Department		<b>Flexible Financing Facility*</b>			
		Amortization period:		25 years	
		Original WAL:		15.25 years	
<b>Source</b>	<b>Amount</b>	Disbursement period:		5 years	
		Grace period:		5.5 years	
IDB (Ordinary Capital):	52,000,000	Inspection and supervision fee:		**	
Local:	62,000,000	Interest rate:		LIBOR-based	
		Credit fee:		**	
Total:	114,000,000	Approval currency:		U.S. dollars from the Ordinary Capital	
Project at a Glance					
<b>Project objective/description:</b>					
The program’s objective is to expand the coverage and improve the quality of early childhood education and basic education in the Manaus municipal system.					
<b>Special contractual conditions precedent to the first disbursement:</b>					
The borrower will demonstrate to the Bank’s satisfaction that: (i) the project management unit (PMU) has been created by municipal law and its members appointed (see paragraph 3.2); (ii) the terms of reference have been presented for the implementation of a project management system that involves, among other functions, recording and generating the reports required by the Bank (see paragraph 3.2); (iii) the legal instrument for technical cooperation between the Municipality of Manaus through the Municipal Education Department (SEMED) and Instituto Ayrton Senna (IAS) has come into effect, establishing the responsibilities and competencies of each of the parties under the program (see paragraph 3.2); and (iv) the Operating Regulations, under the terms previously agreed on with the Bank, have been submitted (paragraph 3.2).					
<b>Special contractual conditions precedent to the disbursement of resources for Component 3:</b>					
The legal instrument whereby SEMED joins the Amazonas school performance evaluation system (SADEAM) due to be signed by the Municipality of Manaus, through SEMED, and the State of Amazonas, through the State of Amazonas Education Department (see paragraph 1.11), has come into force.					
<b>Exceptions to Bank policies:</b> None.					
<b>Project qualifies as:</b>		SEQ [ X ]	PTI [ X ]	Sector [ X ]	Geographic [ ] Headcount [ X ]

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

- 1.1 The capital of the State of Amazonas, Manaus, has a population of 1.8 million inhabitants<sup>1</sup> living in relatively small area and consequently has a high population density (158 inhabitants/km<sup>2</sup>). The Manaus industrial district (free zone) is home to over 600 industrial producers with output of over US\$40 billion in 2013. Despite having a per capita GDP of over US\$12,000, almost 20% of the population lives below the poverty line (according to IBGE figures). Given the division of roles regarding education policies and programs between the three levels of government (national, state, and municipal), the Municipal Education Department (SEMED) is responsible for early childhood education and basic education.<sup>2</sup> It has 501 teaching establishments, 11,616 teachers, 860 educationalists, and 212,000 students: 44,000 in early childhood education, and 168,000 in basic education, and mainly caters to the population from lower socioeconomic strata.<sup>3</sup> In relative terms, the performance of the municipal system is below the national average. In 2011 the basic education development index (IDEB)<sup>4</sup> reached 4.1 in the first stage of basic education and 3.1 in the last stage, compared with 4.7 and 3.8 for Brazil as a whole. The coverage and flow indicators were also below the national average, as Table I-1 shows.

**Table I-1: Flow and coverage indicators and rates 2010 (%) (MEC/INEP)**

	Net enrollments		Pass rate		Over grade-age		Drop-out	
	Early child-hood Ed	Basic Ed	Basic Ed 1	Basic Ed 2	Basic Ed 1	Basic Ed 2	Basic Ed 1	Basic Ed 2
<b>Manaus</b>	27	94	88	81	21	39	2	8
<b>Northern region</b>	25	97	87	81	27	40	3	6
<b>Brazil</b>	35	98	91	84	17	28	1	4

- 1.2 With regard to learning achievement, the percentage of students reaching adequate levels in Portuguese and mathematics in Prova Brasil<sup>5</sup> was equal to the average for the northern region, declining as students progressed through educational cycles, and falling short of the already unsatisfactory national average (see Table I-2).

<sup>1</sup> Population census, IBGE 2010.

<sup>2</sup> Early childhood education provides crèche services (with educational support and care for children ages four months to three years) and preschool (ages four to five years). Basic education covers nine years (ages 6-14) and is divided into two cycles: 1st to 5th year (Basic Ed 1) and 6th to 9th year (Basic Ed 2).

<sup>3</sup> School Census, 2013 (INEP/MEC) and SEMED (82% of students are beneficiaries of the Bolsa Familia program according to the poverty line established for the program).

<sup>4</sup> The Basic education performance index (IDEB) varies between 0 and 10. It comprises a performance indicator such as Prova Brasil (math and language tests every two years, in 5th and 9th year of basic education and the 3rd year of secondary education) and a flow indicator (pass rate). See: <http://portal.inep.gov.br/web/portal-ideb/o-que-e-o-ideb>.

<sup>5</sup> The following scores are considered adequate learning in Portuguese: 200 for 5th year and 275 for 9th year. For math, the scores are 225 and 300.

**Table I-2: Students showing adequate learning on the Prova Brasil (%) (2011, MEC/INEP)**

	5th year of basic education		9th year of basic education	
	Portuguese	Math	Portuguese	Math
<b>Manaus</b>	32.9	23.4	19.0	7.7
<b>Northern region</b>	30.1	22.7	20.5	10.1
<b>Brazil</b>	40.0	36.3	27.0	16.9

- 1.3 **Infrastructure and coverage.** First and foremost, challenges exist in relation to inadequate infrastructure and low coverage.<sup>6</sup> Of the 501 establishments, 126 provide only early childhood education, 243 solely basic education, and 132 offer both levels, with the difficulties that teaching children of such different ages on the same premises brings. Moreover, 32% of facilities are leased, as the result of a massive and disorderly expansion and the elimination of the intermediate shift between the early morning and evening shifts that were in place until the mid-1990s. This resulted in inadequate premises that cannot be refurbished for legal reasons and which generate high recurring costs.<sup>7</sup> The coverage problems are concentrated in early childhood education. Barely 65% of the age group receives preschool while just 6% attend a crèche.<sup>8</sup> This creates a clear need to expand the supply of services. To mitigate this problem, the município obtained financing from the Ministry of Education to build 48 crèches. Coverage is expected to be increased to 11,200 children by the end of 2014, raising the enrollment rate to 12.8%. However, this is still a long way short of the 2011-2020 National Education Plan (PNE)<sup>9</sup> goal of 50% coverage.
- 1.4 **School performance.** Secondly, challenges exist associated with the quality of services and learning achievements. In the case of basic education, SEMED has effectively no programs with the coverage or content necessary to reverse the low learning levels and high failure rates, which subsequently translate into delays completing schooling (over grade-age) and the fact that only 63.2% of 16 year olds completed basic education.<sup>10</sup> The learning acceleration program “Voando Para o

<sup>6</sup> There is evidence that an improved infrastructure endowment can help obtain better academic results, Duarte J., C. Gargiulo, and M. Moreno. 2011. “Situación de la Infraestructura Escolar y Calidad de la Educación Básica en América Latina: Un análisis a partir del SERCE” [State of school infrastructure and quality of basic education in Latin America: an analysis based on SERCE]. SCL/EDU, Technical note. Washington D.C.: Inter-American Development Bank, and Barros, R. P., Mendonça, Santos and Quintaes, (2001), Determinantes do Desempenho Educacional no Brasil. Pesquisa e Planejamento Econômico [Determinants of Educational Performance in Brazil. Economic Planning and Research].

<sup>7</sup> Situación de la Infraestructura [State of infrastructure] (Engineering and Transportation Division, SEMED, 2013)

<sup>8</sup> SEMED, 2012. Constitutional amendment 59/2009 extends compulsory education to the preschool period as of 2016.

<sup>9</sup> Ley 13005/14. A description of the PNE’s content and goals can be found in the PNE Observatory, <http://www.observatoriodopne.org.br/>, led by the Movimiento Todos pela Educação. [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>10</sup> IBGE/PNAD 2011.

Sucesso” reached 4,000 student—barely 7% of the total over age. The “Tempo de Superação” remedial program only reaches 6,000 students. SEMED has therefore begun negotiations with Instituto Ayrton Senna (IAS)<sup>11</sup> to implement its remedial teaching and learning acceleration projects, whose methodologies will enable it to significantly increase the number of beneficiary students.<sup>12</sup> Nor does SEMED provide funds to schools so they can implement their own educational projects. As regards teachers,<sup>13</sup> although all of them have advanced training, the opportunities for professional development are piecemeal, of short duration, and have little relationship to the demands created by students’ learning difficulties.<sup>14</sup> In the case of early childhood education, the biggest weaknesses are concentrated in classroom activities, arising from inadequate teacher training,<sup>15</sup> a lack of emphasis on classroom practice, and a shortage of teaching and play materials according to research in six Brazilian capitals, one of which was in the northern region (2009-2010).<sup>16</sup> Furthermore, good quality early childhood education articulated with basic education, with joint activities by teachers to facilitate the transition between the two stages, have positive impacts on performance and progress through subsequent cycles of schooling. Consistent with international literature, the research mentioned above found that students who attended better quality preschools had better results on literacy tests in the second year. Expanding the supply of early childhood education poses serious challenges for SEMED. On the one hand, insufficient staff are available to cater to the cohort of children of early childhood education age,

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<sup>11</sup> Since 1994 Instituto Ayrton Senna has been implementing projects to improve learning in public schools. It has trained more than 75,000 teachers and benefited two million students in 1,300 Brazilian municipalities. See [optional electronic link#4](#) for a full description of the programs.

<sup>12</sup> Learning acceleration strategies are a successful way of reducing over grade-age rates and improving levels of learning in basic education. Lück, Heloísa and M. Parente. (2006). *Using Accelerated Learning to Correct Student Flows: the Case of Paraná, Brazil*. Instituto de Pesquisa Econômica Aplicada (IPEA).

<sup>13</sup> The qualification of teachers is one of the most important factors in learning. Verdisco, A., and Ñopo, H. (2012). *Intervenciones Tempranas y el reto de los recursos humanos*. [Early interventions and the human resources challenge]. In M. Cabrol, and M. Szekely, *Educación para la Transformación*, [Education for Transformation] pp. 93- 131. Washington, D.C.: Inter-American Development Bank and Hanuschek, E. (2011). *The Economic Value of Higher Teacher Quality*. *The Economics of Education Review*, pp. 466-479.

<sup>14</sup> Instituto Ayrton Senna and Boston Consulting Group (2014). *Formação Continuada de Professores no Brasil: Acelerando o Desenvolvimento de Nossos Educadores*.

<sup>15</sup> In this regard, the biggest difficulties teachers face in the exercise of their profession are concentrated in the lack of knowledge of disciplines and class management skills. *Formação continuada de professores: Uma análise das modalidades e das praticas em estado e municípios brasileiros*. [Continuing education for teachers: An analysis of modes and practices in Brazilian states and municípios] Fundação Victo Civita and Fundação Carlos Chagas (2011).

<sup>16</sup> *Educação Infantil no Brasil: Avaliação quantitativa e qualitativa*. Fundação Carlos Chagas, MEC and IDB (2010) - (ATN/OC-11259-BR). The study applied scales of observation (0 to 10): Infant and Toddler Environmental Rating Scale in Creches, and Early Childhood Environment Rating Scale, collecting preschool data on seven dimensions: (i) infrastructure and equipment; (ii) care routines; (iii) language and communication; (iv) activities; (v) interaction; (vi) programming; and (vii) parents and team. The six Brazilian capitals, one of them in the northern region, that took part in the study (Rio de Janeiro, Campo Grande, Teresina, Belem, and Fortaleza) obtained just 3.3 and 3.4 in crèche and preschool, respectively.



which means challenges for the selection, recruitment, and training of new principals, teachers, and ancillary workers.<sup>17</sup> And on the other, there is a need to modify the current in-service training supply, which is limited to short courses with limited impact on teaching practice, and is provided by trainers selected via a somewhat informal process from among SEMED's employees, who receive no special training to enable them to train their peers. Lastly, SEMED, like most of Brazil's municipal education networks, does not have the information it needs to assess the quality of early childhood education services.

- 1.5 **Management and evaluation.** Challenges also exist in relation to the management of the SEMED system. The appointment process for principals does not abide by objective criteria or require prior qualifications to manage schools. Designing a new model of selection and training is a key aspect of successfully improving educational quality. The challenges for the monitoring and evaluation systems vary according to the cycle of education. In early childhood education, SEMED lacks routine quality monitoring and evaluation systems and practices for its services. The only performance evaluation system for students in basic education is Prova Brasil. This means SEMED is reliant on the latter's bi-annual evaluations, the results of which take nearly two years to be published, and therefore do not allow users to make timely improvements to management at the school and classroom levels. In relation to management in general, SEMED has basic data such as enrollments and attendance of students and teachers through its computerized school management system. However, it does not have systematically ordered information that would provide it with objective indicators on school progression and academic results that would give timely information about the situation of the schools in the system and serve as a management tool for decision-making in both the education department and schools. SEMED has started taking action to address the aforementioned challenges. In 2014 it contracted Instituto Aquila,<sup>18</sup> which is supporting the implementation of an integrated education management system (GIDE). This system aims to introduce a series of strategic indicators on the management of individual schools, and to train a team of 100 educational coordinators in charge of collecting and supporting the information, and supporting schools' improvement efforts. In short, Manaus has a long way to go to meet the objectives Brazil set in its PNE, in particular: achieving universal access to preschool by 2016, increasing crèche coverage to 50% by 2020, ensuring 95% of basic education students complete this cycle of education at 14, and improving school performance indicators.<sup>19</sup>

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<sup>17</sup> None of the university courses on education offered in Manaus give training focused on early childhood education. The teaching time on these topics is around 10% to 20% (SEMED, 2014).

<sup>18</sup> Instituto Aquila specializes in organizational management and has a strong track record in Brazil's education sector, where it has supported eight state education systems in introducing management and monitoring systems. See link [optional electronic link#5](#).

<sup>19</sup> See Target 1 (Early childhood education), Target 2 (Basic education) and Target 7 (Learning at the appropriate age), which have IDEB and PISA indicators.

- 1.6 **Other Education Division (EDU) programs in Brazil and PROEMEM.** With the approval of three programs since 2013 and the execution of several dialogue and knowledge products (see [optional electronic link#6](#)) the Education Division has developed a presence covering a number of the PNE's priorities. The need for quality monitoring systems for early childhood education was detected in the study on quality of early childhood education mentioned in paragraph 1.4. Advances in the conceptualization and design of these systems in Rio de Janeiro (ATN/JF-12669-BR) and Florianópolis (loan 3079/OC-BR) were fully utilized in this operation. Key staff from the Florianópolis Early Childhood Education Department took part in preparatory activities for PROEMEM, providing valuable input. For the basic education evaluation system, SEMED will adhere to the state system (see paragraph 1.11). Experience in the identification and implementation of remedial teaching and acceleration programs, present in the programs in Pará (loan 2933/OC-BR), Amazonas (loan 2992/OC-BR) and in Math Tutorials Cooperation in São Paulo (ATN/KF-12245-BR), enabled the design of these interventions in PROEMEM to be better focused. The dialogue with civil society foundations and academia committed to education was also important, enabling actors complementing the Division's programs in Brazil to be identified.
- 1.7 **Strategic alignment of the program.** The program is aligned with the Bank's country strategy with Brazil (2012-2014) (document GN-2662-1), as part of the objective of fostering social inclusion in the priority sector of education, and is included in the 2014 Operational Program Report Update (document GN-2756-2). It will also contribute to the poverty reduction and equity enhancement lending priority of the IDB's Ninth General Capital Increase (GCI-9) (document AB-2764). It will contribute to the regional targets for the share of young people ages 15 to 19 who finish 9th grade and to the following outputs: (i) students benefiting from educational projects; and (ii) teachers trained. It is aligned with the Bank's Strategy for a Social Policy for Equity and Productivity (document GN-2588-4), linking improved educational quality and investment to effective early childhood development. According to the Education and Early Childhood Development Sector Framework Document (document GN-2708-2), it fits in with four priority dimensions for the Bank's intervention in education: (i) the high targets for student learning guide the provision and monitoring of educational service on all levels; (ii) new students join ready to learn; (iii) all students have access to effective teachers; and (iv) all schools have adequate resources and are able to use them for learning.
- B. Objectives, components, and cost**
- 1.8 The program's objective is to expand the coverage and improve the quality of early childhood education and basic education in the Manaus municipal system.
- 1.9 **Component 1. Expanding and improving coverage of early childhood and basic education (US\$29.74 million).** The objective of this component is to extend early childhood and basic education coverage by expanding and improving school infrastructure. This component will finance: (i) construction of seven crèches,

- 13 municipal early childhood education facilities (CMEI) and 13 municipal basic education schools (EMEF) to replace those leased under poor conditions and add new slots so as to allow the number of preschool slots to be increased by 6,500, crèche places by 1,200, and achieving universal coverage of basic education,<sup>20,21</sup> (ii) acquisition of durable goods and materials to equip the units; and (iii) contracting of services for works supervision.
- 1.10 **Component 2. Improving the quality of education (US\$15.05 million).** In order to improve the performance of students in the early childhood and basic education systems, this component will finance: (i) the design and implementation of learning acceleration and remedial teaching programs with IAS support for students who are most over age and have worst academic performance, respectively; (ii) support for the redesign of recruitment competitions to select new teachers and revision of the probationary period for new teachers with a coaching system and implementation of processes for evaluating them;<sup>22</sup> (iii) review of the selection process for SEMED trainers responsible for training teachers and municipal system managers, and training and skills development activities for them; and (iv) school projects to improve educational performance and school management, selected via a competitive fund.<sup>23</sup>
- 1.11 **Component 3. Management, monitoring, and evaluation (US\$5.0 million).** This component will strengthen SEMED's capacity to manage the educational system. To this end it will carry out activities linked to: (i) the implementation of new evaluation, certification, and selection processes for managers; (ii) implementing the Manaus educational performance evaluation system (SAEDE), which will have two components: A school performance component, based on the results of the Amazonas state evaluation system (SADEAM), which SEMED will join; and a second component comprising a school management evaluation index; (iii) the development and implementation of a quality monitoring system for early childhood education; (iv) development of a strategy for coordination and liaison

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<sup>20</sup> The crèches will be built at the start of the program and their location has already been identified, according to the analysis of demand based on the Population Census, INEP data and the State of Infrastructure. The same criteria were used for the CMEI and EMEF.

<sup>21</sup> Preschool coverage will reach 67% and that of crèches 12.8%, with an increase in early childhood education coverage from 25% to 31%.

<sup>22</sup> New teachers taking part in induction and support programs perform better in the classroom and enable their students to obtain better results on standardized tests. *Ingersoll, R. M. & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A Critical review of the research. Published in behalf of American Educational Research Association.*

<sup>23</sup> Delivering funds to schools for school management increased learning levels. Lucrecia Santibañez, Raúl Abreu-Lastra, Jennifer L. O'Donoghue (2014), *School based management effects: Resources or governance change? Evidence from Mexico*, Economics of Education Review, Volume 39, April 2014, Pages 97-109.

with the private sector and civil society;<sup>24</sup> and (v) design and implementation of the process and program impact evaluations. It will be a special contractual condition precedent to the disbursement of funds for this component that the legal instrument for SEMED's membership of SADEAM, due to be signed by the Município of Manaus through SEMED with the State of Amazonas through the Amazonas State Education Department, enter into force.

- 1.12 **Component 4. Program administration (US\$2.21 million).** The following steps will be taken in order to equip SEMED with the capacity to implement the program: (i) the operation of a program management unit; (ii) procurement of goods and contracting of services and consulting services to support project management.
- 1.13 **Cost and financing.** The total cost of the program is US\$114 million, of which US\$52 million (45.6%) will be financed with resources from the Bank's Ordinary Capital and US\$62 million (54.4%) from local counterpart resources, as shown in Table I-3 below. See the Itemized Budget for more details ([optional electronic link#3](#)).

**Table I-3: Budget envelope, by component (US\$ million)**

Description	IDB	Local	Total	%
Component 1. Expanding coverage of basic education	29.74	50.42	80.16	70.3
Component 2. Improving education quality	15.05	4.66	19.71	17.3
Component 3. Management, monitoring and evaluation	5.00	3.81	8.81	7.7
Component 4. Program administration	2.21	3.11	5.32	4.7
<b>TOTAL</b>	<b>52.00</b>	<b>62.00</b>	<b>114.00</b>	<b>100</b>

- 1.14 **Cost-benefit analysis.** This analysis estimated the social benefits of the project, which link expanding the supply of early childhood education to improved school completion rates through the learning acceleration programs and their consequent reduction in delayed schooling, and through remedial teaching, along with teacher training and the benefits arising from the improved quality of human capital formation. The ex ante evaluation of the program's benefits indicates that the net present value is positive at US\$49 million, making the project viable. The social internal rate of return (SIRR) is 15.2%, which exceeds the discount rate of 12% representing the project's opportunity cost, thus indicating its viability. Various scenarios, using less conservative assumptions, allow an SIRR of 17.7% to be achieved ([optional electronic link#2](#)).

## C. Key indicators from the results matrix

- 1.15 Upon program completion, it is expected that Prova Brazil will measure students' improved academic performance. The main outcome indicator for Component 1, increasing educational infrastructure, is to increase net early childhood education

<sup>24</sup> Many of the companies in the free zone already operate, directly or indirectly, through their social responsibility institutes or foundations, in the education sector. It is expected that a coordination strategy with the private sector may guarantee that their social investments are set in the context of the sector's public policies.

coverage by 4.5 percentage points and achieve universal basic education. It is expected that by improving education quality Component 2 will contribute to: (i) increasing the percentage of students who achieve minimum learning in various proportions depending on the school year and subject ([see Annex II](#)); (ii) reduce the age-grade distortion rate for the first cycle of basic education by 15.7 percentage points; and (iii) increase the IDEB score for the 5th year of basic education by 1.7 points. Lastly, it is expected that Component 3, management, monitoring, and evaluation, will result in improved school management through the effective use of the new tools.

- 1.16 **Monitoring, follow-up, and impact evaluation** The program's monitoring arrangements will include, at least: (i) three or four meetings per year to review the program's technical and operational progress, solve problems and mitigate risks, in which the Bank and relevant institutional actors will take part, subsequently duly disseminating the management agreements reached; (ii) implementation of a project management system for the registration and generation of the semiannual program report (paragraph 3.3); (iii) semiannual reports on the accomplishments of each of the components and the program's performance according to the agreed Results Matrix ([see Annex II](#)), based on the project management system, at least from the second year that the program is in effect; (iv) use of the management tools mentioned in the monitoring and evaluation arrangements ([required electronic link#2](#)) and agreed on during the program startup workshop, in order to have appropriate tools available for activity planning and the necessary processes to achieve the physical outputs and intermediate and final outcomes, and to monitor them; and (v) use of the Operating Regulations ([optional electronic link#1](#)) as a program management tool and principal reference in the progress reviews conducted with the Bank, including, *inter alia*: (a) the detailed description of the expected program outputs, in quantitative and qualitative form; (b) targeting, and where applicable, expenditure eligibility, criteria; (c) who is responsible for each activity; (d) mechanisms for updating the Operating Regulations; as well as the annexes with the Results Matrix ([see Annex II](#)); Fiduciary Arrangements and Requirements ([see Annex III](#)); Monitoring and Evaluation Arrangements ([required electronic link#2](#)); Environmental and Social Management Report ([required electronic link#3](#)) and Itemized Program Budget ([optional electronic link#3](#)).

## II. STRUCTURE OF FINANCING AND RISKS

### A. Financing instruments

- 2.1 Insofar as this operation finances a project with components and activities defined according to the description given in Section I-B above, the financing instrument that will be used is an investment loan from the Ordinary Capital of the Flexible Financing Facility. The estimated disbursement schedule for the operation is as follows:

**Table 11-1: Disbursement schedule (US\$ millions)**

	Year 1	Year 2	Year 3	Year 4	Year 5	Total	%
<b>IDB</b>	13.07	16.03	12.46	7.01	3.44	52.00	45.6%
<b>Local</b>	18.75	16.60	18.20	7.84	0.61	62.00	54.4%
<b>TOTAL</b>	<b>31.82</b>	<b>32.63</b>	<b>30.66</b>	<b>14.85</b>	<b>4.05</b>	<b>114.00</b>	<b>100%</b>
%	27.9	28.6%	26.9%	13.0%	3.6%	100%	

## **B. Environmental and social safeguard risks**

2.2 Given the scale of the works and their location in urban areas, the potential impacts are low. The combined CMEI and EMEF construction projects, with an average size of 9,500 m<sup>2</sup>, like the crèches, with a size of 2.800m<sup>2</sup>, could have potential local, short-term small-scale environmental impacts typical of works of this type and, therefore, are easily controlled and managed using standard environmental procedures. According to the Environment and Safeguards Compliance Policy (operational policy OP-703), this is classified as a Category “B” operation, and the recommendations made were followed and summarized in the Environmental and Social Management Report ([required electronic link#3](#)). Concerning the environmental licensing process, program works must comply with Brazilian environmental regulations, relevant state and municipal building regulations, and the management and monitoring requirements specified in the program’s Operating Regulations ([optional electronic link#1](#)), in accordance with Bank operational policy OP-703. As regards the risk of disasters associated mainly with flooding and potential landslides, centers will not be allowed to be built in at-risk areas. The executing agency will specify this clearly in the bidding documents, contracts for works, and the technical documentation submitted to the Bank before the works, in compliance with the Disaster Risk Management Policy (operational policy OP-704). In principle, the construction of these educational facilities is not expected to require any involuntary resettlements. However, should the situation arise, the Bank’s Involuntary Resettlement Policy (operational policy OP-710) will apply, and a plan will be developed to adopt suitable measures to provide economic compensation to the affected population. The program will have positive social impacts through the increased early childhood and basic education coverage, improved progression and school completion resulting from the learning acceleration and remedial teaching programs, and from the improvement in educational performance.

## **C. Fiduciary risks**

2.3 SEMED’s capacity to organize, execute, and monitor the program was evaluated through an institutional capacity assessment (ICAS) and the risk assessment exercise. The findings showed that SEMED has medium institutional capacity for program management and a medium level of institutional risk. As regards fiduciary issues, the potential slowness of bidding processes was identified. This is a result of technical personnel’s lack of experience executing externally financed projects and unfamiliarity with Bank rules, which could affect program implementation. The following steps are envisaged to mitigate this risk: (i) the creation by municipal law

of a project management unit (PMU) directly linked to the secretariat, which will coordinate implementation; (ii) the assignment of additional technical and legal staff for goods and services procurement procedures and their training in the Bank's procurement policies, above all those linked to services and consulting services; (iii) running training and skills-building activities for members of the municipal tendering commission, the PMU, and SEMED staff involved in implementation; and (iv) implementing a project management system that will enable data recording and generation of the reports required by the Bank.

**D. Other risks**

- 2.4 **Insufficient personnel to manage the construction and equipping of educational facilities.** The significant volume of works to be executed by SEMED over the next five years will be a substantial challenge for the current teams. It is therefore envisaged that the engineering management unit be strengthened through the PMU, as well as being given the resources for project completion and preparation of final construction designs and works supervision.
- 2.5 **Insufficient personnel to implement Component 2 and 3 activities.** The significant expansion of early childhood education, the large-scale implementation of learning acceleration and remedial teaching projects, and the introduction of SAEDE may be compromised by the lack of staff or by coordination issues. It is therefore planned that the SEMED team be strengthened through the PMU, particularly its Early Childhood Education and Basic Education Divisions, and the Evaluation and Monitoring Division. In turn, the secretary, as the maximum authority, and the PMU, will establish routines between the divisions concerned for consensus building, planning, and monitoring the program's actions. Training will be provided to both the central and regional teams to prepare them for supervision and support tasks.
- 2.6 **Possible lack of teachers to cater to the increased early childhood education coverage.** The need to recruit teachers for the 11,200 children in 48 new crèches means multiplying the SEMED's supply five-fold on this level. Difficulties are anticipated obtaining the necessary number of teachers and/or teachers with the required qualifications. To mitigate this risk, support will be given to redesigning the teacher selection process through public competitions, and coordination and dissemination strategies will be developed in partnership with the universities providing teacher training and in-service training of new teachers requiring it, through a system of coaching during the three-year probationary period at the start of a teaching career.
- 2.7 **Possible difficulties coordinating SADEAM tests with SEDUC/AM.** Although SEMED is expected to sign a membership agreement with its state counterpart to join SADEAM at no cost to the Município of Manaus during the execution of PROEMEM, resources were set aside in Component 2 so that SEMED could pay for the SADEAM tests to be run for at least two years if SEDUC/AM changes its priorities or has insufficient funds to do so.



### III. IMPLEMENTATION AND ACTION PLAN

#### A. Summary of implementation arrangements

- 3.1 **Executing agency.** The program executing agency will be the Municipality of Manaus through SEMED. A project management unit (PMU) will be created within SEMED, reporting directly to the SEMED Secretary. The PMU will be the official interlocutor with the Bank and all other public and private organizations. It will be headed by a general coordinator and will have public officials and consultants hired for a fixed term. In addition to the general coordinator, it will include at least: a manager for each project component, a financial manager, a procurement manager, and a legal adviser. A project management support firm and a works supervision firm will be hired by SEMED to supply qualified professional staff to execute the various PMU functions, as well as computer system support for project management. The PMU will coordinate with the SEMED departments, divisions, and offices involved in PROEMEM, within the scope of the project's activities, thus avoiding duplication of functions and responsibilities and building the necessary capacities within SEMED to ensure the project's activities are sustainable.
- 3.2 SEMED, which reports to the Education Secretary, will be responsible for financial execution and accounting management, supported by the PMU (see [Annex III](#)). The integrated municipal financial administration system will be used. This will be supplemented with a project management system enabling the data recording and report generation required by the Bank. The Operating Regulations, currently being prepared, will detail the program execution mechanism and establish the functions to be performed by both the PMU and the SEMED's other internal areas, identifying the institutional strengthening measures necessary and the need to expand its teams to ensure good project execution. **As a special contractual conditions precedent to the first disbursement of the loan proceeds, the borrower will demonstrate to the Bank's satisfaction that: (i) the project management unit (PMU) has been created by municipal law and its members appointed; (ii) the terms of reference have been presented for the implementation of a project management system that involves, among other functions, recording and generating the reports required by the Bank; (iii) the legal instrument for technical cooperation between the Município of Manaus through the Municipal Education Department (SEMED) and Instituto Ayrton Senna (IAS) has come into effect, establishing the responsibilities and competencies of each of the parties under the program; and (iv) the Operating Regulations, under the terms agreed on with the Bank, have been submitted.**
- 3.3 **Reports.** SEMED will submit semiannual progress reports to the Bank, providing information on achievements and problems encountered. Every December, starting with the first December after the effective date of the loan contract, SEMED will submit an annual work plan (AWP), with the corresponding procurement plan, for the Bank's approval, in accordance with the guidelines previously agreed on.



- 3.4 **System for monitoring execution.** The program will adopt the Bank's supervision mechanisms, in accordance with the Supervision and Monitoring Arrangements, which will also form part of the program's Operating Regulations ([optional electronic link#1](#)).
- 3.5 **Program readiness.** The project profile for this operation was approved for Bank financing of US\$52 million on 10 June 2014. Recommendation 11/0105 (25 April 2014) of the Committee on External Financing (COFIEEX) authorized the município to contract IDB financing through two independent, self-contained operations, each for up to US\$52 million. This operation is the first of these two operations, and together with the US\$62 million in local counterpart resources, enables the total of US\$114 million to be reached.
- 3.6 **Procurement.** Works, goods and consulting services will be selected and procured in accordance with the Bank's 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 Inter-American Development Bank (see [Annex III](#)). Based on the assessment of the executing agency's capacity, ex ante review will be used for all international competitive bidding, direct contracting, and consultant selections where the estimated amount exceeds US\$1 million. All other processes will be subject to annual ex post review. Based on the annual audit reviews, the Bank may modify the review method indicated in the procurement plan. Project procurement will be handled by the two sections of the municipal tendering commission (CML), which is the body centralizing all procurement in the Manaus Prefecture. Procurement of works will be handled by the works and engineering services subcommittee and all other procurement (goods, services, and consulting services) will be handled by the education area tendering subcommittee. The procurement manager will be a member of the PMU and will also be in charge of procurement administration, supporting the CML and taking part in it when required.
- 3.7 Fundação Carlos Chagas, a private not-for-profit institution, will be contracted directly for a period of up to 60 months for the sum of up to US\$1.5 million to design and implement the early childhood education services quality monitoring system. Its participation is considered essential in view of the exceptional value of its previous experience (document GN-2350-9, 3.10, d) as it has taken part in adapting early childhood education observation scales to the situation in Brazil, applied in a sample of schools in six Brazilian capitals. The foundation is implementing a similar system in the Município of Rio de Janeiro.<sup>25</sup> It is a renowned applied research institution that as well as ensuring the professional qualifications of the consultants providing support, combines system design and implementation, training, dialogue, and consensus-building capabilities that are

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<sup>25</sup> Support to Rio de Janeiro: An integrated program to increase quality and coverage of social services for children ages 0 to 6 (ATN/JF-12669-BR).

vital for this pioneering activity in Brazil. Global Editora e Distribuidora Ltda. will be contracted directly to provide teaching materials for remedial teaching and accelerated learning programs, which will be supported by IAS, for a sum of approximately US\$1.6 million, as it has the sole rights to produce this material (document GN-2349-9, 3.6, d).

- 3.8 **Advances of funds.** Disbursements will be made in the form of advances based on the real liquidity needs over a maximum period of six months. Applications must therefore be accompanied by cash flow planning for a 180-day period.
- 3.9 **Audits.** The program's financial statements and expenditure eligibility will be audited annually by the Audit Office of the State of Amazonas (TCE-AM). The project's audited reports are to be sent to the Bank no later than four months following the close of each fiscal year for the entity, pursuant to the procedures and terms of reference previously agreed on with the Bank.
- 3.10 **Retroactive financing and recognition of expenditures.** The Bank will recognize eligible expenditures (chargeable to the loan and the local contribution) incurred during the 18 months prior to the date of approval of the loan but subsequent to 10 June 2014 (date of approval of the project profile). Expenditures charged to the loan will total no more than US\$4 million (7.7% of the loan value). Expenditures related to the local contribution will be of up to US\$12.5 million (20.1% of the counterpart contribution). Expenditures must conform to the Bank's procurement policies or substantially similar procedures, in accordance with operational policy OP-507, in both cases.

## **B. Summary of arrangements for monitoring results**

- 3.11 A series of specific activities will also be carried out to strengthen SEMED's monitoring capacity. Firstly, a planning workshop will be run, with the Bank's support, jointly with the program startup workshop. Secondly, the Manaus Educational Performance Evaluation System (SAEDE) will be implemented. This will have two components: The first, school performance, will be based on the results of the State of Amazonas evaluation system (SADEAM), which SEMED will join. It is due to be applied annually in the municipal system covering 3rd, 5th, 7th, and 9th grades of basic education (with the exception of 5th and 9th on odd years, which are evaluated in Prova Brasil). Special care will be given to feeding back and making use of the findings for administrators and teachers. This will make it possible to detect problems in the system, at schools, and for individual students, and to launch support actions, and link teacher recruitment, support, and in-service training actions to the problems detected during the evaluation. The second component, education management will coordinate and systematically organize the actions SEMED has been running with Instituto Aquila. Thirdly, the program will finance the development and implementation of an early childhood education quality monitoring system, which will provide objective systematic information on the situation of early childhood education schools in the system and will serve as a management tool for decision-making. Thus, this operation's monitoring strategy

will not focus on isolated actions specific to this program, but rather on introducing tools, systems, and practices that SEDEM will use routinely and that the program will contribute to developing, implementing, and strengthening.

- 3.12 The program impact evaluation plan includes: (i) an impact evaluation of expanding the network of crèches. This evaluation will be quasi-experimental (instrumental variables) and will use primary data collected via a household survey, SEMED administrative data, and the findings of literacy tests to estimate the impact of the significant expansion of the network of crèches (the number of which will rise from seven to 48 in just three years) on various indicators: crèche attendance, preschool care, timely enrollment in first grade, school progression, and early literacy. The distance between the homes of children ages 0 to 3 years and the new crèches (the seven built by the program plus those that will be built with federal funds) will be taken as the instrumental variable, producing an exogenous change (to the individual) in the education supply; and (ii) evaluation of the quality of crèche and preschool services. This evaluation will be reflexive in nature (comparing the situation with and without the program) and will compare the quality of the crèche and preschool centers built under the program with those already in operation. The quality of provision of services in the centers will be measured using the Infant-Toddler Environment Rating Scale and the Early Childhood Environment Rating Scale, the quality of teaching will be evaluated using class observations which will be coded using standardized headings such as the Classroom Assessment Scoring System (CLASS), and the general quality using early childhood development indicators. Additionally, the correlation between the various dimensions of quality in the provision of services and of teaching and the early childhood development indicators will be analyzed.
- 3.13 **Baseline.** The baseline for the purposes of the results matrix to measure the performance achievements in mathematics and Portuguese will be based on 2013 Prova Brasil data. The evaluations will be designed during the final six-month period of construction of the crèche (impact evaluation) and preschool facilities (reflexive evaluation), and the field work to collect additional primary data for the existing sources will be carried out as of the first two-month period following the opening of the works. Information will be gathered from primary and secondary sources using the instruments described in the Monitoring and Evaluation Plan ([required electronic link #2](#)).

### **C. Post-approval activities**

- 3.14 **Preparation of agreements, terms of reference, and bidding conditions.** SEMED will move forward, with Bank support, in: (i) the identification of the personnel to make up the PMU, and their training needs; (ii) final preparation of the legal agreements referenced in paragraphs 1.10 and 1.11; (iii) final drafting and approval of the Operating Regulations; and (iv) identification of the technical team to prepare/adapt the project management system.

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 to 19 who complete ninth grade.		
Bank Output Contribution (as defined in Results Framework of IDB-9)		(i) Students benefited by education projects, and (ii) Teachers trained.		
2. Country Strategy Development Objectives		Aligned		
Country Strategy Results Matrix		GN-2662-1	Improve coverage and retention in the education system.	
Country Program Results Matrix		GN-2756-2	The intervention is included in the 2014 Operational Program.	
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
		9.9		10
3. Evidence-based Assessment & Solution		9.8	33.33%	10
3.1 Program Diagnosis		3.0		
3.2 Proposed Interventions or Solutions		4.0		
3.3 Results Matrix Quality		2.8		
4. Ex ante Economic Analysis		10.0	33.33%	10
4.1 The program has an ERR/NPV, a Cost-Effectiveness Analysis or a General Economic Analysis		4.0		
4.2 Identified and Quantified Benefits		1.5		
4.3 Identified and Quantified Costs		1.5		
4.4 Reasonable Assumptions		1.5		
4.5 Sensitivity Analysis		1.5		
5. Monitoring and Evaluation		9.8	33.33%	10
5.1 Monitoring Mechanisms		2.3		
5.2 Evaluation Plan		7.5		
III. Risks & Mitigation Monitoring Matrix				
Overall risks rate = magnitude of risks*likelihood		Medium		
Identified risks have been rated for magnitude and likelihood		Yes		
Mitigation measures have been identified for major risks		Yes		
Mitigation measures have indicators for tracking their implementation		Yes		
Environmental & social risk classification		B		
IV. IDB's Role - Additionality				
The project relies on the use of country systems				
Fiduciary (VPC/PDP Criteria)		Yes	Financial Management: (i) Budget, (ii) Treasury, and (iii) External Control. Procurement: (i) Information System, and (ii) National Public Bidding.	
Non-Fiduciary		Yes	i) Monitoring and Evaluation National System; and ii) Statistics National System.	
The IDB's involvement promotes improvements of the intended beneficiaries and/or public sector entity in the following dimensions:				
Gender Equality		Yes	Learning as a result from the tutoring and accelerated learning components will be monitored by gender.	
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	The evaluation of the Project will produce evidence on the effect to attend an early educational program on a series of indicators related to later education. The current evidence on the effects of massive expansion of educational services in ECD is limited; therefore the evaluation will contribute to close knowledge gaps in the sector. The methodology for the evaluation will be instrumental variables.	

Regarding the diagnosis, the document provides evidence that the municipality of Manaus faces challenges in coverage for initial education and quality of provision in educational services. The diagnosis is based on information provided by the Ministry of Education. The factors identified that contribute to the problem are poverty on the demand side, and deficient infrastructure, lack of proper training for teachers and principals, and the lack of a monitoring and evaluation system on the supply side. Magnitudes of deficiencies are provided.

The results matrix has a clear vertical logic. The indicators included are SMART with one exception. The team proposes an index which will be defined in the first year as an outcome indicator for component 3. Two out of five impact indicators do not have baseline or target values. No targets are proposed for 3rd grade EF because there is no historical data that would allow for its calculation. For these two impact indicators, the team provides evidence of a plan to acquire this information and how to set targets. Output indicators include predetermined yearly quantities.

The economic analysis makes reasonable assumptions and includes sensitivity analysis. The detailed budget does not have a one to one correspondence between costs and outputs for the third component. No outputs or outcomes indexes are included for component 4 because its objective is to finance the administration of the program.

The program includes an impact evaluation for the construction of new schools through instrumental variables, and a reflexive evaluation on the quality of services for preschool.

All risks are classified as medium. Risks identified include slow procurement processes, insufficient personnel to execute simultaneous actions, lack of knowledge on IADB normative aspects, lack of teachers to complement the new infrastructure, and coordination difficulties. Mitigation measures include hiring personnel, training, meetings, and agreements.

## RESULTS MATRIX

<b>Project objective</b>	The program's objective is to expand the coverage and improve the quality of early childhood and basic education in the Manaus municipal system.
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Impact	Baseline	Final target	Remarks
<p>Average scores in: 3rd year of basic education: Portuguese and mathematics.</p> <p>5th year of basic education: Portuguese and mathematics for students of the municipal basic education system, measured by Prova Brasil.</p> <p>Improvement in Basic Ed1 Basic Education Performance Index in Brazil (IDEB) score</p>	<p>3rd year of basic education: National literacy assessment (ANA) for Portuguese and mathematics (to be determined).</p> <p>5th year of basic education: Prova Brasil (2013) for Portuguese and mathematics (to be determined).</p> <p>IDEB 2011: 4.1</p>	<p>Academic performance as average of scores on Prova Brasil (2019) and ANA (2019)</p> <p>3rd year of basic education: Portuguese: To be determined when the baseline is known. Mathematics: To be determined when the baseline is known.</p> <p>5th year of basic education: Portuguese: 9% Mathematics: 7%</p> <p>IDEB (2019): 5.5</p>	<p>The data from the 2013 IDEB, which includes Prova Brasil, and the results of ANA, are not yet available. They are expected to be released at the end of 2014. Sources: Anísio Teixeira National Institute for Educational Studies and Research (INEP) for the IDEB, and State Secretariat of Education (SEDUC) for SADEAM.</p>

Component 1. Expansion of coverage and improvement of infrastructure for basic education								
	Base	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Remarks
<b>Outputs</b>								
New educational establishments including municipal early childhood education facilities (CMEI) and municipal basic education schools (EMEF) in operation. Unit of measure: Educational Establishments.	0		4	5	4		13	“In operation” means construction is completed, basic equipment installed, according to the standards of the Fondo Nacional de Desarrollo de la Educación (FNDE, Manual Descriptivo para Aquisição de Mobiliário Implantação da Escola de Ensino Infantil Tipo B e Tipo C and Manual Padrão Mínimo de Funcionamento da Escola) and teaching staff appointed for 12 classrooms in 2 shifts for CMEF and EMEF. Source: SEMED administrative records and Official Gazette of the Município of Manaus.
New crèches in operation. Unit of measure: Crèches.		4	3				7	“In operation” means construction completed, basic equipment installed, according to the standards of the FNDE and teaching staff appointed. Source: SEMED administrative records and Official Gazette of the Município of Manaus.
New vacancies created in the early childhood education schools in operation. Unit of measure: Vacancy.		1,200	2,000	2,500	2,000		7,700	Source: SEMED administrative records and school census.
New vacancies created in the basic education schools in operation. Unit of measure: Vacancy.			1,600	2,500	1,600		5,700	Source: SEMED administrative records and school census.
<b>Outcomes</b>								
Net early childhood education coverage rate.	25.7% (2012)	25.9%	26.6%	31.89%	32.5%	32.5%	32.5%	Sources: INEP, based on the household survey by the Brazilian Institute of Geography and Statistics (IBGE).
Net basic education coverage rate.	94.0% (2012)	94%	94.9%	96.1%	97%	97%	97%	Sources: INEP, based on the household survey by the Brazilian Institute of Geography and Statistics (IBGE).

	Base	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Remarks
<b>Component 2. Improvement in the pass rate, completion rate, and quality of basic education</b>								
<b>Outputs</b>								
New basic education students in the learning acceleration program. Unit of measure: students.		8,000	8,000	8,000	8,000		32,000	Source: SEMED administrative records, broken down by gender. The program will recruit students up to the levels established in each year.
New basic education students in the remedial teaching program. Unit of measure: students.		12,000	12,000	12,000	12,000		48,000	Source: SEMED administrative records, broken down by gender. The program will recruit students up to the levels established in each year.
Early childhood and basic education teachers hired under the new competitive system participating in the coaching system. Unit of measure: teachers.			720	790	490		2,000	Source: SEMED administrative records and Official Gazette of the Município of Manaus.
Teachers-trainers who completed the training course Unit of measure: teachers.				50		50	100	Source: SEMED and training institution administrative records.
Early childhood and basic education schools receiving funds for school projects Unit of measure: schools.			100	125	125		350	Source: SEMED administrative records.
Impact assessments carried out Unit of measure: Reports submitted.						3	3	Source: SEMED administrative records.

	Base	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Remarks
<b>Component 2. Improvement in the pass rate, completion rate, and quality of basic education</b>								
<b>Outcomes</b>								
Students in the municipal system who reached appropriate levels of learning for each year in Portuguese (5th year of basic education).	Basic Ed5 32.9% (2011)	36%		38.5%		39.5%	Basic Ed5 39.5%	Sources: Prova Brasil (Ministry of Education and Culture/INEP). The baseline data will be adjusted when the results of Prova Brasil 2013 are released in late 2014. The results of Prova Brasil 2019 will be available in 2020. The following scores are considered adequate learning in Portuguese: 200 for 5th year and for mathematics 225.
Students in the municipal system who reached appropriate levels of learning for each year in mathematics (5th year of basic education).	Basic Ed5 23.4% (2011)	25.3%		26.9%		27.6%	Basic Ed5 27.6%	Sources: Prova Brasil (Ministry of Education and Culture/INEP). The baseline data will be adjusted when the results of Prova Brasil 2013 are released in late 2014. The results of Prova Brasil 2019 will be available in 2020. The following scores are considered adequate learning in Portuguese: 200 for 5th year and for mathematics 225.
Age-grade distortion rate for Basic Ed1.	20.7% (2012)	20.7%	15.2%	10.0%	5%	5%	5%	Sources: MEC/INEP.



	Base	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Remarks
<b>Component 3. Management and monitoring of the school system and evaluation</b>								
<b>Outputs</b>								
Performance evaluation reports on school heads issued by SEMED. Unit of measure: reports.				1		1	2	Source: SEMED administrative records.
Annual SAEDE results reports delivered to schools and teachers Unit of measure: reports.		0	1	1	1	1	4	Source: SEMED administrative records. The reports are to contain an analysis of school performance by subject, class, grade, and school, and include suggestions on curriculum content for improvement.
Number of municipal schools, from among those eligible (more than 20 pupils), that participate in SADEAM tests. Unit of measure: schools.		270	310	330	350	350	1,260	Source: SEMED and SEDUC/AM administrative records.
Number of early childhood education schools using the quality monitoring operating normally. Unit of measure: Early childhood education schools.		0	0	220	50	15	285	Source: Consulting report contracted for the development and implementation of the early childhood education quality monitoring system. “Schools operating” means: system installed and school staff trained on its use and interpretation.
Strategy designed for coordination and relations with the private sector and civil society. Unit of measure: Consulting report presented and accepted by SEMED.		0	0	1	0	0	1	Source: SEMED administrative records based on the consulting report contracted for strategy development.
<b>Outcomes</b>								
Number of schools with improvements of over 5% on the SAEDE index of management evaluation (AGE).					50	50	100	Source: SAEDE registers The AGE will be defined in the first year of the project.

## FIDUCIARY AGREEMENTS AND REQUIREMENTS

**Country:** Brazil  
**Project number:** BR-L1392  
**Name:** Project to Improve Quality and Expand Coverage of the Manaus Municipal Public Education System (PROEMEM)  
**Prepared by:** Santiago Schneider (Financial Management Specialist)  
Carlos Lago Bouza (Procurement Specialist)

### I. EXECUTIVE SUMMARY

- 1.1 The evaluation of fiduciary management was based on meetings with the Bank's team, the executing agency (the Manaus Municipal Education Department-SEMED), the Municipality of Manaus, the Municipal Treasury Department (SEMEF), and the Audit Office of the State of Amazonas (TCE-AM). Institutional analysis documents, risk workshops, and the Bank's experience working with executing agencies in the State of Amazonas, and specifically in the Manaus Prefecture, were also taken into account. Based on the assessment of the executing agency and the fiduciary systems, fiduciary agreements were prepared both for procurement and for financial management, and will govern program execution.

### II. THE MUNICÍPIO AND EXECUTING AGENCY'S FIDUCIARY CONTEXT

- 2.1 Brazil has a solid institutional and regulatory framework, with robust national fiduciary systems that facilitate sound management of the administrative, financial, internal control, and procurement processes. These systems require further fine-tuning and strengthening on an ongoing basis in order to be better tailored to new fiduciary requirements. In this regard, the Bank's fiduciary strategy for Brazil is focused on making progressive and sustainable use of the country's fiduciary systems.
- 2.2 In the Município of Manaus, public entities use the integrated public finance management system (AFI), a public management system administered by the Municipal Finance Department (SEMEF). Use of this system is obligatory for all departments and other municipal government structures.
- 2.3 Entities use the following country management support tools to plan and organize program activities: (i) a multiyear plan, which establishes the public administration's guidelines, objectives, and targets; (ii) the budgetary procedure law; (iii) the annual budget law, which estimates and sets the public administration's expenditure for the current year; (iv) the fiscal responsibility law, which puts limits on the public administration's spending; and (v) information systems (planning, accounting, financial management) that support management.
- 2.4 Procurement and contracting is governed by the national tendering law - Law 8.666/93. For purchases of common goods and services the *Compras Eletrônicas do Banco do Brasil-Licitações-e* system, which has been evaluated and accepted by the Bank, is used.
- 2.5 Entities are supervised by the Audit Office of the State of Amazonas (TCE-AM), which continuously monitors entities' financial transactions and processes through daily monitoring of the financial management systems and by conducting audits.

Additionally, SEMEF has an independent internal control unit that conducts quarterly audits on municipal entities.

- 2.6 The Manaus Municipal Education Department (SEMED), as part of the municipal government, will be the executing agency for the program and responsible for its institutional and technical coordination. In order to equip SEMED with the capacity to implement the program, a project management unit will be created, with a team to run it and provide management support services (see paragraph 6.6 execution mechanism).

### III. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS

- 3.1 The risk and institutional capacity assessment of the municipality and executing agency identified the following risks in relation to fiduciary matters that could lead to delays in execution:

Risks	Mitigation actions
Potential delays in competitive bidding and accountability processes as a result of the inexperience of technical personnel in the execution of projects with external financing and lack of familiarity with Bank rules.	<p>(i) creation by municipal law of a project management unit (PMU) directly linked to the Secretariat, in charge of coordinating implementation;</p> <p>(ii) allocation of additional technical and legal personnel for goods and services procurement procedures, contracting of consulting services, and their training in the Bank's procurement policies, above all those associated with services and consulting services.</p> <p>(iii) providing training for members of the municipal tendering commission, the PMU, and SEMED staff involved in execution; and</p> <p>(iv) implementation of a project management system capable of recording and generating the reports required by the Bank.</p>

### IV. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF CONTRACTS

- 4.1 Program management must comply with the Bank's standards regarding reports, financial statements, and any other information it requires.
- 4.2 **Conditions precedent to the first disbursement (fiduciary conditions).** The borrower will demonstrate to the Bank's satisfaction that: (i) the project management unit has been set up under municipal law and is in operation; and (ii) the terms of reference have been presented for the implementation of a project management system capable of recording and generating the reports required by the Bank.
- 4.3 **Audited financial statements.** The project's financial statements will be audited annually by the Audit Office of the State of Amazonas. They are to be sent to the Bank no later than 120 days following the close of each fiscal year for the entity, pursuant to the procedures and terms of reference previously agreed on with the Bank. The audit is to include a review of procurement, in addition to the Bank's actions and reviews.
- 4.4 **Exchange rate to apply.** The exchange rate option will be determined during the negotiation mission.

- 4.5 **Other financial management requirements:** Supporting documentation on expenditures will be subject to ex post review by Bank-designated staff or the external auditors, and/or the TCE-AM.

## V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

- 5.1 The fiduciary agreements and requirements on procurements establish the provisions applicable to the execution of all procurements envisaged for the project.
- 5.2 **Procurement execution.** Procurement will be carried out through the PMU, which plans to set up a special tendering committee for the project. Works, goods, and nonconsulting services will be procured in accordance with the Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document GN-2349-9). Consultants will be selected and hired in accordance with the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (document GN-2350-9).
- 5.3 Goods and nonconsulting services will be procured using the Pregão ComprasNet or Banco do Brasil systems. An evaluation of the State of Amazonas Pregão system is also planned. It may, therefore, be used on the project as so indicated in the procurement plan.
- 5.4 **Procurement of works, goods and nonconsulting services.** Contracts for works, goods, and nonconsulting services<sup>1</sup> arising from the project and subject to international competitive bidding (ICB) will use the standard bidding documents issued by the Bank. Bidding procedures subject to national competitive bidding (NCB) will use national competitive bidding documents agreed on with the Bank (or satisfactory to the Bank).
- 5.5 **Selection and contracting of consulting services.** The consulting services required for the project will be contracted using the standard request for proposals document issued by the Bank.
- 5.6 **Selection of individual consultants.** Individual consultants will be selected on the basis of their qualifications for the assignment, through a comparison of the qualifications of at least three candidates. When circumstances require, advertisements may be published in the local or international press to attract qualified consultants.
- 5.7 **Use of country procurement systems.** The Pregão country procurement subsystems (Dutch auction) approved by the Bank, ComprasNet, and Banco do Brasil will be used for the procurement of: common goods and nonconsulting services. Any system or subsystem subsequently approved will be applicable to the operation. The operation's procurement plan and its updates will indicate which procurements will be executed using approved country systems.<sup>2</sup>
- 5.8 **Advance procurement and retroactive financing.** The Bank will recognize eligible expenditures (chargeable to the loan and the local contribution) incurred during the 18 months prior to the date of approval of the loan but subsequent to 10 June 2014 (date of approval of the project profile). Expenses charged to the loan will total no more than US\$4 million (7.7% of the loan value). Expenses related to

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<sup>1</sup> According to the IDB procurement policy, nonconsulting services are treated as goods.

<sup>2</sup> If the Bank validates any other system or subsystem, this will be applicable to the operation as established in the loan contract.

the local contribution will be of up to US\$12.5 million (20.1% of the counterpart contribution). Expenditures must conform to the Bank's procurement policies or substantially similar procedures, in accordance with operational policy OP-507, in both cases.

- 5.9 **Direct contracting.** Fundação Carlos Chagas, a private not-for-profit institution will be contracted directly for a period of up to 60 months for the sum of up to US\$1.5 million to design and implement the early childhood education services quality monitoring system. Its participation is considered essential in view of the exceptional value of its previous experience (document GN-2350-9, 3.10, d) as it has taken part in the adaptation of early childhood education observation scales to the situation in Brazil, applied in a sample of schools in six Brazilian capitals. The foundation is implementing a similar system in the Município of Rio de Janeiro.<sup>3</sup> The foundation is a renowned applied research institution that, as well as ensuring the professional qualifications of the consultants providing support, combines system design and implementation, training, dialogue, and consensus-building capacities that are vital for this pioneering activity in Brazil. Global Editora e Distribuidora Ltda. will be contracted directly to provide teaching materials for remedial teaching and accelerated learning programs, which will be supported by IAS, for a sum of approximately US\$1.6 million, as it has the sole rights to produce this material (document GN-2349-9, 3.6, d).
- 5.10 **Procurement thresholds.** The threshold determining the use of international competitive bidding will be made available to the borrower, or the executing agency, as applicable, at <http://www.iadb.org/procurement>. Below this amount, the selection method will be determined according to the complexity and characteristics of the procurement, which must be reflected in the procurement plan adopted by the Bank.
- 5.11 **Recurring expenditures.** These comprise operating and maintenance expenses incurred bringing the project into operation during its useful life, and covering: communications expenses, translations, office supplies, photocopies, mail and other expenditures necessary for the proper administration of the project concentrated in the PMU. These expenditures will be paid for with loan proceeds within the annual budget approved by the Bank, and will follow the administrative procedures of the Secretariat, which will be reviewed and accepted by the Bank, provided they comply with the basic principles of competition, efficiency, and economy. The cost of consultants hired to assist during the lifetime of the loan is also treated as a recurring expense. However, operating costs do not include the salaries of civil servants.
- 5.12 **Initial procurement plan.** Current proposal annexed hereto. The version agreed on may be used during the project execution, depending on the circumstances ([required electronic link#4](#)).
- 5.13 **Procurement supervision.** All ICB, direct contracting, and consultant selection for an estimated amount of over US\$1 million will be reviewed ex ante. Considering the characteristics of the project and the PMU's operational capacity, all other procedures will be subject to annual ex post review. Based on the annual audit

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<sup>3</sup> Support to Rio de Janeiro: An integrated program to increase quality and coverage of social services for children ages 0 to 6 (ATN/JF-12669-BR).

reviews, the Bank may modify the review method indicated in the procurement plan.

- 5.14 **Records and files.** The files are to be kept in the offices of the PMU and under secure conditions.

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

- 6.1 The fiduciary agreements and requirements for financial management establish the financial provisions applicable to project execution.
- 6.2 **Programming and budget.** The Municipal Education Department (SEMED) will be responsible for planning execution of activities in accordance with the program implementation plan, the budgets, and annual work plan. The program activities budget will be approved by means of a municipal budget law. The Secretariat will use planning tools such as multiyear plans, targets and priorities of the Budget Guidelines Law (LDO) and actions of the Annual Budget Law (LOA). The budget earmarked for program activities forms part of the LOA. The SEMED team must guarantee that the budgetary resources for the program, both the IDB contribution and the local contribution, are duly budgeted, and assured for the annual execution in accordance with the project's operational program and financial plan.
- 6.3 **Accounting and information system.** SEMED will use the mandatory municipal financial system (AFI-the integrated budget, accounting, and finance system), which is administered by SEMEF and is very similar to the state financial system (AFIM). AFI is an integrated system that was developed in-house by PRODAM (Procesamiento de Datos Amazonas S.A.), a mixed company, in which the State of Amazonas is the majority shareholder.
- 6.4 The AFI system includes all the budgetary, financial, and accounting information for entities forming part of the Municipality of Manaus, including SEMED. This system will therefore include all the financial records and information for the IDB project. It currently allows accounting information to be retrieved for different environments, however it does not permit identification of program transactions with the characteristics required by the Bank (by source of financing and by investment category), making it necessary for a module to be adapted, or a parallel system used to keep the project's financial data and accounting books in a unified way.
- 6.5 **Disbursements and cash flow.** The program will operate with funds advanced by the Bank. These funds must meet the project's real liquidity needs over a period of not more than six months. The executing agency will present disbursement requests to the Bank, duly accompanied by the financial plan, which will show the funding needs for this period. The executing agency will submit an initial project financial plan to the Bank, which must include a disbursement timetable for the whole execution period. For future advances it will be necessary to account for at least 80% of the funds advanced, and submit a new financial plan updated for the period in question.
- 6.6 Disbursements will be paid into an exclusive dollar account at Banco do Brasil. These resources will be transferred immediately by SEMEF to an exclusive account in Brazilian reais in the project's name at Banco do Brasil (operating account). The executing agency will have direct access to the online reports and statements for this account.

6.7 **External control and reporting:** The Audit Office of the State of Amazonas (TCE-AM), which was recently accredited by the Bank to conduct these audits, will be responsible for external control of the project. The executing agency is to submit its duly audited financial statements to the Bank within 120 days of the end of the fiscal year. The content of the reports, and opinions to be given, are to follow the guidelines defined by the IDB for external audits.

6.8 **Financial supervision plan:**

Supervision activity	Supervision plan			
	Nature and scope	Frequency	Party responsible	
			Bank	Third party
<b>FIDUCIARY</b>	Ex post review of disbursements and procurement.	Annual	Fiduciary team	Fiduciary team and TCE-AM
	Financial and operational audit.	Annual		TCE-AM
	Review of disbursement requests	Periodic	Fiduciary team	
	Inspection visit to examine internal controls and control environment.	Annual	Fiduciary team	TCE-AM
<b>COMPLIANCE</b>	Annual allocation of budgetary resources for project implementation.	Annual	Fiduciary team	Executing agency
	Submission of audited financial statements and operational audit.	Annual	Fiduciary and technical teams	Executing agency – TCE-AM
	Conditions precedent to first disbursement.	Once only	Fiduciary and technical teams	Executing agency

6.9 **Execution mechanism.** The program executing agency will be the Municipality of Manaus through SEMED. A project management unit (PMU) will be created within SEMED, reporting directly to the Secretary of SEMED. The PMU will be the official interlocutor with the Bank and all other public and private organizations. It will be headed by a general coordinator and will have civil servants and consultants hired for a fixed term. Along with the general coordinator, it will include at least: a manager for each project component, a financial manager, a procurement manager, and a legal adviser. A project management support firm will be hired by SEMED to supply qualified professional staff to execute the various PMU functions, as well as computer system support for project management. The PMU will coordinate with SEMED's departments and divisions involved in PROEMEM, within the scope of the project's activities, thus avoiding duplication of functions and responsibilities.

6.10 The Planning and Financial Management Division, which reports to the Education Secretary, will be responsible for financial execution and accounting management, supported by the PMU. The integrated municipal financial administration system (AFIM) will be used. This will be supplemented with a project management system enabling the data recording and report generation required by the Bank. The Operating Regulations, currently under preparation, will describe the program's execution mechanism and establish the functions to be performed by both the PMU and other internal SEMED areas.