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HAITI

PILOT OF THE ONE LAPTOP PER CHILD MODEL

(HA-T1093)

PLAN OF OPERATIONS

This document was prepared by the project team consisting of: Emma Näslund-Hadley, Project Team Leader; Aimee Verdisco and Claudia Cox (SCL/EDU); Sophie Makonnen (EDU/CHA); Marise Etienne (PDP/CHA); Guilherme Sedlacek (OVE/OVE); and Javier Jimenez (LEG/SGO). Claudia Urrea (consultant) also contributed to this document.

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BASIC SOCIOECONOMIC DATA

For basic socioeconomic data, including public debt information, please refer to the following address:
http://www.iadb.org/res/externallink_list.cfm?language=en&parid=1&item1id=1&detail=Box1#b1

INFORMATION AVAILABLE IN THE FILES OF SCL/SCL

PREPARATION:

Plan of Operations Assessing Education Quality (ATN/SF-10739-HA)

EXECUTION:

Implementation Plan

Manual of Operations

ABBREVIATIONS

CCB/CHA	Bank's Representation in Haiti
CIDA	Canadian International Development Agency
DEF	Basic Education Department
EFACAP	Basic Education Pedagogical Support Center
ESR	Environmental and Social Impact Review
EU	European Union
ICT	Information and Communication Technology
LAC	Latin America and the Caribbean
MDG	Millennium Development Goals
MENFP	Ministry of Education and Vocational Training
MO	Manual of Operations
OLPC	One Laptop Per Child
OREALC	UNESCO´s Regional Office on Education in Latin America and the Caribbean
PCU	Project Coordinating Unit
PDF	Portable Document Format
SC	ICT in Education Steering Committee
SOF	Special Program for Employment, Poverty Reduction and Social Development in Support of the Millennium Development Goals
SERCE	Second Regional Comparative and Explanatory Study
TC	Technical Cooperation
UNESCO	United Nations Educational, Scientific and Cultural Organization

PLAN OF OPERATIONS

(HA-T1093)

EXECUTIVE SUMMARY

Beneficiary:	Ministry of Education and Vocational Training (MENFP)
Team members:	Emma Näslund-Hadley, Project Team Leader; Aimee Verdisco and Claudia Cox (SCL/EDU); Sophie Makonnen (EDU/CHA); Marise Etienne (PDP/CHA); Guilherme Sedlacek (OVE/OVE); Javier Jimenez (LEG/SGO); and Claudia Urrea (consultant).
Executing agency:	Ministry of Education and Vocational Training (MENFP)
Target beneficiaries:	Primary school children in Haiti
Financing:	IDB (ORC-SOF): US$3,000,000 OLPC Co-financing: US$2,000,000 Local counterpart: US$ 100,000 Total: US$5,100,000
Objectives:	The overall objective of this initiative is to provide technical assistance to the Government of Haiti in implementing its strategy for one-to-one computing in basic education. The specific objective is to test one-to-one computing in a context of extreme poverty by piloting it in public and non-public schools in Haiti, comparing results along the following dimensions: (i) effectiveness and value added of OLPC in the teaching-learning process; (ii) generation of child-centered learning; and (iii) sustainability of investment.
Execution timetable:	Execution period: 18 months Disbursement period: 24 months.
Special contractual conditions:	The Project Team recommends special contractual conditions regarding sole sourcing, the presentation of a Manual of Operations and the length of the disbursement period. See paragraphs 4.5, 4.7, 4.9, and 4.10
Exceptions to Bank policies and procedures:	The Project Team recommends exceptions to Bank policies on country of origin and the proportion of investments in equipment. See paragraphs 4.9 and 4.10.
Environmental and social review:	The Project was reviewed by the ESR committee on November 12, 2007. No negative environmental or social effects were identified and the TC has been classified as a "C" according to the Safeguard Classification Tool.
Coordination with other donors:	The initiative is being prepared in coordination with other donors supporting the network of Basic Education Pedagogical Support Center (EFACAP), including the European Union (EU) and the Canadian International Development Agency (CIDA).

I. BACKGROUND AND JUSTIFICATION

1.1 Prompted by the increasing availability of sophisticated technologies at falling prices and allured by the promise technology holds for accelerating progress in education, many countries in the Region have sought Bank support for programs that incorporate technology in the teaching-learning process. Most recently, governments have expressed interest in utilizing existing budgets for education technology in more child-centered ways, particularly for one-to-one computing. This poses a particular challenge for poor countries, where infrastructure, teachers, and other critical inputs are lacking.

1.2 **Haiti Government Strategy.** In Haiti, the strategy of the Government for the next decade includes the introduction of one-to-one computing in the primary school system. However, prior to opting for full-scale implementation, it has requested Bank assistance in assessing the efficiency of one-to-one computing in education. The proposed Technical Cooperation (TC) was specifically designed to allow the Government to answer a series of research and operational questions, including: (i) can one-to-one computing be used to enhance learning in a cost-effective manner; (ii) is one-to-one computing a suitable tool to accelerate learning of overage students (a priority issue of the Haitian Government since 80% of children in school are over-aged); (iii) can one-to-one computing compensate for deficiencies in the number of teachers; (iv) can one-to-one computing improve teaching and learning in multi-grade schools; (v) what are the positive externalities for poor rural and isolated communities; and (vi) what are the implementation requisites for bringing one-to-one computing to scale in Haiti? To answer these questions, a minimum threshold in terms of access to laptops is required. Absent this minimum, the research questions cannot be answered. Therefore, the Government is requesting that the technical assistance package provided by the Bank, which represents the totality of Social Fund resources allocated to Haiti, include laptops.

1.3 **The XO Laptop.** This proposed TC will be co-financed by the Bank and the One Laptop Per Child (OLPC) Foundation, which will finance over 70% of the required laptops. The OLPC Foundation has designed the XO laptop, which is an educational device to be deployed where infrastructure is poor and teacher quality is lacking. The machines are sized for children and include a number of innovations, including open source software, allowing children and teachers to create and invent new inputs; energy efficiency, accommodating solar or human power; mesh networking, facilitating online interaction; and a hermetic seal to make it resistant to water and dirt. Over the past year pilots of the XO laptop have been initiated in several countries, including Nigeria, Brazil, Peru and Uruguay. Based on the results from the pilots, Uruguay is in the process of scaling up its initiative to encompass 150,000 students; and also Peru is about to expand its project.

1.4 **Justification for Use of Resources from the Social Fund.** The proposed Project lays out an innovative design to ascertain whether one-to-one computing improves the quality and relevance of education. The findings will be crucial as

an input to future country programming in Haiti and beyond. As more countries express interest in utilizing existing budgets for education technology in more child-centered ways, the TC will provide important answers regarding the potential benefits and implementation requirements of one-to-one computing. That is, the TC and the impact evaluation it finances will likely generate one-to-one computing projects in Haiti and beyond. Such future projects would not be limited merely to primary education, as one-to-one computing has particular potential as a tool to attract out-of-school youth to secondary education and vocational training. This proposal is in line with the Social Fund's objectives (GN-2426-3) insofar as the Project will enhance upstream investment lending in Haiti and beyond in the use of Information and Communication Technology (ICT) to improve the quality and relevance of education. Through the provision of technical assistance to support the identification of alternative investments in the education sector and the attainment of the Millennium Development Goals (MDG), the proposed TC meets the eligibility criteria of the Social Fund.

II. PROGRAM DESCRIPTION

A. Program goal and purpose

2.1 The overall objective of this initiative is to provide technical assistance to the Government of Haiti in implementing its strategy for one-to-one computing in basic education.The specific objective is to test one-to-one computing in a context of extreme poverty by piloting it in public and non-public schools in Haiti, comparing results along the following dimensions: (i) effectiveness and value added of OLPC in the teaching-learning process; (ii) generation of child-centered learning; and (iii) sustainability of investment. In achieving its objectives, the Project will consist of four components.

B. Components

2.2 **Component 1. Sampling.** A preliminary sampling matrix has been identified to capture the following school characteristics: urban, rural, public, non-public, multi-grade and single-teacher schools. To accommodate these variables, allowing for variation in results the sample should contain a minimum of 13,200 beneficiaries. The TC will finance the further elaboration of this matrix, from which an estimated 60 public and non-public primary schools in three departments will be selected for the pilot. All beneficiary schools will belong to existing school networks structured around Basic Education Pedagogical Support Centers (EFACAP). Implementation of the pilot will be sequenced, allowing for ongoing evaluation and comparison between groups of schools receiving the XO laptops at the beginning and at the end of the pilot. An additional category will be created of schools offering the over-age accelerated program. The interventions will cover grades 2 to 5, benefiting some 13,200 students and 500 teachers.

2.3 **Component 2. Development of Inputs.** The Project will finance the development of quality inputs for the pilot. Specific packages of inputs will be designed to

support the introduction of XO laptops in schools, including solutions for connectivity and security, the identification of teacher training needs, development of content in Creole, and a maintenance and repair plan. These interventions will be complemented with texts and didactic materials.

2.4 The Project will finance a combination of content in Creole and French. The user-interface for the operation system (Sugar) will be translated into Creole. The default software applications included on the XO laptops will be translated into Creole and a minimum of one additional software application for each of the following curricular areas will be developed using a combination of Creole and French: reading/writing, communications, interaction with the environment, numeracy and problem-solving skills, and social skills. Grade-specific and curricular-specific content for each grade will be developed, including a combination of the digitalization or translation of text books and other required texts into Creole or French, experiments, movies, audio files and Portable Document Format (PDF) files. To this end, the project will finance individual consultants with specific linguistic and technological knowledge. A separate module will be developed for schools targeting over-aged students.

2.5 **Component 3. Intervention.** The Project will finance technical support at the school level, acquisition of inputs, and a comprehensive training program. The technical support will include: (i) an additional pedagogical and one new ICT advisor per EFACAP, working within the existing school network monitoring and support structure; and (ii) a support team to launch the initiative consisting of one technical support person per beneficiary school for a period of 15 weeks.

2.6 The comprehensive training initiative will cover the central, departmental and community/school levels. It will be iterative in nature and allow for continuous feedback. As a first step, to create understanding for the OLPC model and to standardize the processes for the implementation of the pilot, the training program will be initiated with a process management session with the participation of: (i) EFACAP pedagogical and ICT advisors; (ii) regional MENFP inspectors; and (iii) representatives from the Basic Education Department (DEF) of the MENFP. The initial session will be followed by a series of immersion training sessions at the departmental level for the launching team and the EFACAP pedagogical and ICT advisors. This training will be hands-on, and will focus on the use of the laptop as a pedagogical tool, and basic trouble shooting and maintenance issues.

2.7 Similar immersion training sessions will follow at the school level for teachers and students, based on a summer camp model (Group I) and an in-school training model (Group II). These sessions will include guided experimentation, creation and play for the children, and immersion in constructionist approaches and pedagogies for the teachers. In addition, teachers and interested students will receive training in basic repair and maintenance of the machines. To ensure sustainability, regular follow-up sessions will be organized among groups of schools. Community-level meetings will be organized to raise awareness of the project among parents and other members of the community.

2.8 The Project will finance the acquisition of inputs, including 13,700 XO laptops, charging devices (e.g. cranks, yoyos, bicycle cassettes and pedals), solar energy systems, multi-battery chargers, school servers, satellite dishes, printers, power strips, and grounding materials. In addition, it will finance minor infrastructure adjustments, such as installation of locks and other security related work. With funds of the OLPC Foundation and the Government of Haiti, a six-month pre-pilot will be implemented and monitored in approximately four schools in the Port-au-Prince area prior to the approval of this TC. After making necessary adjustments to the model, an 18-month pilot will be implemented in two phases in the schools covered by this TC. The Government will sponsor the local distribution of the XO laptops to beneficiary schools.

2.9 **Maintenance and repair.** Resources will be used to finance a three-tiered system for the maintenance and repair of the laptops. At the school level, teachers and students will be trained in basic maintenance and trouble shooting (e.g. antenna replacement, debugging and re-imaging of software). At the EFACAP level, ICT advisors and the launching team will receive training in more sophisticated repair and maintenance (e.g. change of motherboard and connectivity issues). For problems requiring more technical expertise, MENFP will enter into collaborative arrangements with the schools benefiting from the Vocational Training Program (SF/1627-HA). A 5% replacement part stock will be financed.

2.10 **Component 4. Evaluation.** The Project will finance an evaluation tool to determine the effectiveness of: (i) new technologies in improving learning as measured by an international standardized test; (ii) the pedagogical model, contrasting child-centered and teacher centered learning; (iii) the teaching environment, including classroom management and gender relations; and (iv) the sustainability of the model in terms of the durability of the investments.

2.11 The evaluation will be both qualitative and quantitative. The quantitative evaluation will consist of the application of a standardized test, measuring the change in test scores over the course of the project. The standardized test will be a translated version of the math and language tests applied to third and fourth graders as part of the Second Regional Comparative and Explanatory Study (SERCE). The ex-ante application of the test will be conducted by UNESCO´s Regional Office on Education in Latin America and the Caribbean (OREALC) and financed through the TC Assessing Education Quality ATN/SF-10739-HA. The qualitative evaluation will consist of the continuous observation of classroom practices. The purpose of this observation is to determine changes in pedagogy induced by one-to-one computing. The observation will also seek to identify any attitudinal and behavioral changes inside and outside the classroom, including school management practices, value placed on education by families, use of laptops at home, and perceived educational trajectories of students. The observation will take place ex-ante to determine the baseline and continue throughout the implementation of the Project. The Results Framework specifies the indicators to be monitored and evaluated (Annex I).

III. COST AND FINANCING

A. Summary cost table

Table III-1
Project Cost US$

COMPONENTS	IDB	OLPC	LOCAL	TOTAL	%
1. Sampling	17,800	-	-	17,800	0.4%
2. Development of Inputs	490,743	-	-	490,743	9.6%
3. Intervention	1,691,694	1,880,000	100,000	3,671,694	72.0%
4. Evaluation	200,000	-	-	200,000	3.9%
5. Coordination and Technical Assistance	280,000	120,000	-	400,000	7.8%
6. Contingencies	259,763	-	-	259,763	5.1%
7. Audit[1]	60,000	-	-	60,000	1.2%
Total	**3,000,000**	**2,000,000**	**100,000**	**5,100,000**	**100%**

B. Description and composition of financing

3.1 The total cost of the Project amounts to US$5.1 million: US$3.0 million will be financed through the Special Program for Employment, Poverty Reduction and Social Development in Support of the Millennium Development Goals (ORC-SOF); US$100,000 will constitute local counterpart; and US$2.0 million will be financed by the OLPC Foundation. The application of the first standardized test will be financed through the TC Assessing Education Quality ATN/SF-10739-HA.

C. Sustainability

3.2 While the proposed Project is limited to a pilot scale, the changes in pedagogy it introduces will provide lasting insights and skills to Haitian educators and administrators. Similarly, those children that benefit directly from the Project will have developed lifelong familiarity with ICT which may be utilized in their future education and work, and passed on to parents and other siblings.

3.3 Regarding the sustainability of equipment, the XO laptop is designed to last for a minimum of five years under environmentally harsh conditions. In addition, as indicated above (see par. 2.9), the proposed Project will finance the creation of a three-tiered system for the maintenance and repair of the laptops, including training in maintenance at the school and EFACAP levels, and the development of more advanced ICT expertise through vocational training centers. In addition, 5% of Project resources will be used to create a replacement part stock.

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[1] The project's external audit will be carried out by independent auditors acceptable to the Bank, following the Bank's policies and procedures (Documents AF-100 and AF-300), based on the terms of reference previously approved by the Bank (Documents AF-400 and AF-500). The independent auditors will be selected in accordance with the procedures related to the selection and contracting of audit firms that have been approved by the Bank (Document AF-200). The annual financial statements must be submitted within one hundred twenty (120) days after the end of the fiscal year, beginning with the fiscal year in which the first disbursement has been made from the Bank's financing; and the final statement must be submitted within one hundred twenty (120) days after the date of last disbursement. The cost of the audit is included as part of the project cost and is paid for by the Bank's financing.

IV. EXECUTING AGENCY AND MECHANISM

A. Executing agency

4.1 The beneficiary and the executing agency will be the Ministry of Education and Vocational Training (MENFP).

B. Executing mechanism

4.2 **ICT in Education Steering Committee.** An ICT in Education Steering Committee (SC) has been created with wide representation from the private sector and organizations working in promoting the use of ICT. The MENFP will chair the SC, which will have the following functions: (i) overseeing the pilot and its roll-out at the national level, promoting its objectives and goals; (ii) actively promote child-centered learning methods through the use of ICT in education as a means of updating and upgrading curricula; and (iii) based on the results of the pilot, draft the national one-to-one computing strategy for Haiti.

4.3 **Project Coordination Unit.** The Project will be implemented by a Project Coordinating Unit (PCU), which will be located in MENFP and responsible for: (i) directing the technical and administrative functions, including the supervision and coordination of human and financial resources; (ii) planning, directing, monitoring and documenting Project activities; (iii) preparing quarterly progress reports and a final report; (iv) preparing and submitting through the MENFP disbursement requests to the Bank and the corresponding justification of expenses; (v) preparing and submitting through the MENFP to the Bank an audited financial statement regarding the Project's expenses; (vi) maintaining an adequate disbursement supporting documentation filing system; and (vii) contract and supervise the external evaluation of the Project.

4.4 **Revolving Fund.** A revolving fund will be set up to advance resources from the Bank and secure a smoother execution of the programmed activities.

4.5 **Manual of Operations.** The operating regulations will be laid out in a Manual of Operations (MO), which will govern its execution. **The entry into effect of the MO, in the terms approved previously by the Bank, will be a condition precedent to the first disbursement of the Bank's contribution.**

C. Program implementation readiness

4.6 The introduction of a one-to-one computing strategy at the national level is an utmost priority of the Government, which will give the Project priority in terms of resource mobilization and prompt execution. The pre-pilot described above will give the MENFP experience in one-to-one computing and the system wide changes it entails, including logistical, pedagogical and technical issues. This experience will provide a foundation for the timely execution of the Project.

D. Execution period and disbursement schedule

4.7 The execution of this Project in a context such as Haiti presents logistical challenges, including limitations in distribution capacity, connectivity, security and human resources. The noted limitations in execution capacity of the MENFP add further complication. The activities have been sequenced to be executed within an 18 month timeframe, and the disbursement period will be 24-months. **The Project Team recommends to the Board of Executive Directors that it approve this proposed disbursement period, which exceeds by 12 months the maximum disbursement period stipulated in the Special Program for Employment, Poverty Reduction, Social Development in Support of the Millennium Development Goals (GN-2426-3).**

E. Procurement

4.8 The capacity of the MENFP for the procurement of the operation has been assessed as high risk, therefore all the procurement processes to be carried out will be supervised by the Bank on an ex-ante basis. The execution of procurement and contracting will be carried out in accordance with the *Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank* (GN-2349-7 and current version) and the *Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank* (GN-2350-7 and current version) and the Annex Ad Hoc (see Annex III).

4.9 The OLPC Foundation is co-financing the proposed TC through the provision of 10,000 XO laptops. The OLPC Foundation is a non-profit organization in good financial standing. It is funded by a wide spectrum of sponsor organizations, including Google, Brightstar Corporation, eBay, Nortel Networks, and Red Hat.[2] As condition prior to first disbursement, the Beneficiary should have entered into an agreement with OLPC Foundation regarding the terms under which the Foundation would participate in the Project, including the provision of XO laptops. For this contribution OLPC's procurement policies will apply. **In addition to the XO laptops financed by the OLPC Foundation, the Project Team recommends to the Board of Executive Directors that the OLPC Foundation be sole sourced for the procurement of an additional 3,700 XO laptops in accordance with the provisions in Policy GN-2349-7 (Cl. 3.6(c).** This recommendation is based on the following technical considerations: (i) the OLPC Foundation is the sole manufacturer and distributor of the XO laptop; (ii) the XO laptop is the only computer available worldwide that can use manpowered energy generators (crank, yoyo, and bicycle cassette and foot pedal), a feature which is central for use in Haitian schools; (iii) the XO laptop is also the only computer on the world market with a sun readable screen. That is, the laptop can be used in schools with poor infrastructure (the large majority of Haitian schools) and after school hours; (iv) the XO laptop includes mesh networking

[2] It should be noted that Intel resigned their membership on January 3, 2008. The support of the remaining 14 sponsors guarantees the sustainability of the OLPC Foundation.

hence enabling group work; and (v) the XO laptop can hop the internet signal (even if it is off) to other computers that are out of the range. That is, a computer that is one kilometer away from the Internet range can still get Internet through signal replication. **Although the XO laptop is not the only option available on the market, based on these considerations, it is the most viable one-to-one computing alternative for Haiti, and the Project Team is hereby recommending that the Board of Executive Directors approve an exception to the Procurement Policies of Goods and Works financed by the Bank (GN-2349-7) for a waiver on eligibility of country of origin, as location of manufacturing is in China.**

4.10 **To ensure consistency with the ex-ante test application and interpretation of results, the Project Team recommends to the Board of Executive Directors that UNESCO/OREALC be sole-sourced for the ex-post application and evaluation of the standardized test in accordance with the provisions in Policy GN-2349-7 (Cl. 3.6(c).** This recommendation is based on the following technical recommendations: (i) it is the only agency administering a standardized primary education test in the LAC region; and (ii) it creates consistency with the ex-ante application financed through ATN/SF-10739-HA. **To test the efficiency of one-to-one computing, a sufficiently large subset of the population must have access to the XO laptop. The required investments in equipment and infrastructure will therefore exceed 30%, and the Project Team recommends that the Board of Executive Directors approve an exception to Bank policy.**

V. MONITORING AND EVALUATION

5.1 **Monitoring.** To follow the implementation of the Project, a comprehensive monitoring system will be created, involving close supervision at the school (launching team), district (EFACAP pedagogical and ICT advisors), departmental (regional MENFP inspectors) and central levels (PCU, SC and representatives from the DEF). Any issues that arise will be addressed as appropriate and documented as a central input to the overall evaluation.

5.2 **Technical and basic responsibility.** The Bank's Representation in Haiti (CCB/CHA) will have the disbursement responsibility, and the technical responsibility will be shared between the Education Division (SCL/EDU) and CCB/CHA. The OLPC Foundation will be responsible for providing technical assistance.

5.3 **Progress and final reports.** The PCU will be responsible for preparing quarterly progress reports and a final report.

5.4 **Description of proposed evaluations.** As described above, the proposed TC will finance a rigorous qualitative and quantitative evaluation (see par. 2.10-2.11), including the application of a standardized test ex-ante and ex-post and observation of classroom practices and changes in pedagogy.

VI. PROGRAM BENEFITS AND RISKS

A. Program benefits and developmental impact

6.1 The main benefit of the proposed TC is the testing of the efficiency of one-to-one computing in education. The results of the assessment will have important implications for the generation and design of future education projects in Haiti and the Latin America and the Caribbean (LAC) region. It will help determine the effectiveness of one-to-one computing as an instrument for improving learning; and identify implementation requisites under poor and environmentally harsh conditions. In the specific case of Haiti, the results of the assessment will play a central role in the development of a national one-to-one computing strategy. An additional benefit is the creation of a cadre of students who have developed ICT skills, which may be useful for future studies and in helping integrate Haitian businesses into the global economy. The Haitian Government will also have gained invaluable experience in introducing ICT into one sector, which can subsequently be applied in other sectors such as health, energy and transportation.

B. Target beneficiaries

6.2 Based on the national sampling matrix (see par. 2.2), an estimated 60 public and non-public primary schools in three departments will be identified as beneficiary schools. The TC will directly benefit some 13,200 students and 500 teachers.

C. Risks

6.3 The execution of this Project in a context such as Haiti presents logistical challenges, including limitations in distribution capacity, connectivity, security and human resources. The limitations in execution capacity of the MENFP add further complication. To mitigate risks associated with the implementation of the pilot, the national level targeting mechanism provides the flexibility needed to rapidly redirect and deploy the pilot in alternative locations, thereby avoiding an extension of the execution period if difficulties arise in a district. In addition, and perhaps most importantly, the high priority of this Project to Haiti's ICT in education strategy is the best guarantee to ensure its timely implementation.

VII. ENVIRONMENTAL AND SOCIAL REVIEW

7.1 The Project was reviewed by the Environmental and Social Impact Review (ESR) committee on November 12, 2007. No negative environmental or social effects were identified and the TC has been classified as a "C" according to the Safeguard Classification Tool. Investments in equipment will be environmentally sound and include solar and manpowered energy. The XO laptops meet standards for the reduction of hazardous substances, and the training of teachers and advisors will include safe disposal practices for computer waste.

VIII. CERTIFICATION

8.1 I hereby certify that this operation was approved for financing under the Special Program for Employment, Poverty Reduction and Social Development in Support of the Millennium Development Goals Trust Fund (ORC-SOF) through an email dated on November 16, 2007 and signed by Goro Mutsuura (VPC/GMC). Also, I certify that resources from the Special Program for Employment, Poverty Reduction and Social Development in Support of the Millennium Development Goals Trust Fund (ORC-SOF) are available for up to US$3,000,000 in order to finance the activities described and budgeted in this document. This certification reserves resources for the referenced project for a period of twenty-four calendar months counted from the date of signature below. If the project is not approved by the IDB within that period, the reserve of resources will be cancelled, except in the case a new certification is granted. The commitment and disbursement of these resources shall be made only by the Bank in US$ Dollars. The same currency shall be used to stipulate the remuneration and payments to consultants, except in the case of local consultants working in their own borrowing member country who shall have their remuneration defined and paid in the currency of such country. No resources of the Fund shall be made available to cover amounts greater than the amount certified herein above for the implementation of this Plan of Operations. Amounts greater than the certified amount may arise from commitments on contracts denominated in a currency other than the Fund currency, resulting in currency exchange rate differences, for which the Fund is not at risk.

(ORIGINAL SIGNED) 01/02/08

Marguerite S. Berger
Chief
Grants and Cofinancing Management Unit

Date

Results Framework
Matrix of Indicators

Project Objective	The overall objective of this initiative is to provide technical assistance to the Government of Haiti in implementing its strategy for one-to-one computing in basic education. The specific objective is to test one-to-one computing in a context of extreme poverty by piloting it in public and non-public schools in Haiti, comparing results along the following dimensions: (i) cost-effectiveness and value added of OLPC in the teaching-learning process; (ii) generation of child-centered learning; and (iii) sustainability of investment.

Results Indicators	**Baseline**			**Goal**			
By the end of the Project, learning in math and language will increase in the Project beneficiary schools.	To be determined by ex-ante test application.				To be determined by ex-ante test application.	(+5%)	The assessment of learning will be measured by the application of the second round of the Latin American Laboratory of Education Quality (SERCE).
By the end of the Project, teachers in beneficiary schools will have adopted and implemented a child-center approach.	To be determined by ex-ante classroom observation.				To be determined by ex-post classroom observation.	(Observable change in attitudes and behaviors)**.**	Classroom observations will be ongoing throughout the Project.

Intervention	**Baseline**	**Year 1**	**Year 2**	**Goal**	
Products					*Project Records and External Evaluation*
Some 13,200 children and 500 teachers using the XO laptop.	0	7,000	13,700	13,700	
Some 13,200 children and 500 teachers trained in the use of the XO laptop as a learning tool.	0	7,000	13,700	13,700	
Proportion of beneficiary classrooms with functioning electricity solutions (solar or human powered) for the XO laptops.	0	60%	100%	100%	
XO laptops that are maintained and kept in a working condition.	0	95%	95%	95%	

Intervention	Baseline	Year 1	Year 2	Goal	
Intermediate Results					*External Evaluation*
Classroom management practices have changed to a child-centered learning approach in beneficiary schools.	To be determined by ex-ante classroom observation.			To be determined by ex-ante classroom observation.	
Improved perceived educational trajectories of beneficiary students.	To be determined by ex-ante qualitative survey.			To be determined by ex-ante qualitative survey.	
Higher value placed on education by beneficiary families.	To be determined by ex-ante qualitative survey and observation.			To be determined by ex-ante qualitative survey and observation.	
Lower drop-out rate of overage students.	To be determined by ex-ante survey.			To be determined by ex-ante survey.	
Final Results					*The assessment of learning will be measured by the application of the second round of the Latin American Laboratory of Education Quality (SERCE)*
Children with improved results on a standardized test.	To be determined by ex-ante test application.			To be determined by ex-ante test application.	

Notes:

1. The Matrix of Indicators will show the base level values, expected year values, and target values of each indicator;
2. Outputs and outcomes are grouped together to facilitate monitoring of component performance
3. The right hand column can be used for description of output / outcomes and choice of indicator and other explanatory notes
4. In the Results annex/section, this Matrix will be complemented by a detailed account of the arrangements (including institutional responsibilities, operating regulations, terms of reference, hiring of consultants, budgeting) showing how the data will be collected, verified, analyzed and reported to the Bank. The data sources and rationale behind the base line and target values will also be described.

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DETAILED BUDGET

COMPONENTS	IDB	OLPC	LOCAL	TOTAL	%
1. Sampling	**17,800**	-	-	**17,800**	**0.4%**
1.1 Consulting services	17,800	-	-	17,800	
2. Development of Inputs	**490,743**	-	-	**490,743**	**9.6%**
2.1 Creole OLPC Contents	133,500	-	-	133,500	
2.2 Didactic Materials	124,600	-	-	180,000	
2.3 Immersion Training	80,100	-	-	80,100	
2.4 Summer Camp	137,505	-	-	137,505	
2.5 Community Awareness Raising	4,005	-	-	4,005	
2.6 Process Management Training	11,033	-	-	11,033	
3. Intervention	**1,691,694**	**1,880,000**	**100,000**	**3,671,694**	**72.0%**
3.1 Launching Team	209,328	-	-	209,328	
3.2 Pedagogical and ICT Advisors	108,936	-	-	108,936	
3.3 Energy systems	267,000	-	-	267,000	
3.4 Installations of security	16,020	-	-	16,020	
3.5 Connectivity	170,880	-	-	170,880	
3.6 Servers	80,100	-	-	80,100	
3.7 Alternative powered devises	66,750	-	-	66,750	
3.8 XO laptops	701,480	1,880,000	-	2,581,480	
3.9 Local distribution (in kind)	-	-	100,000	100,000	
4.0 Repair and maintenance	71,200	-	-	71,200	
4. Evaluation	**200,000**	-	-	**200,000**	**3.9%**
4.1 Field observation	100,000	-	-	100,000	
4.2 Qualitative assessment and analysis	100,000	-	-	100,000	
5. Coordination and Technical Assistance	**280,000**	**120,000**	-	**400,000**	**7.8%**
6. Contingencies	**259,763**	**-**	**-**	**259,763**	**5.1%**
7. Audit	**60,000**	-	-	**60,000**	**1.2%**
Total	**3,000,000**	**2,000,000**	**100,000**	**5,100,000**	**100%**

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PROJECT PROCUREMENT PLAN

Model A - for specific projects

General information

Country: Haiti
Borrower: Government of Haiti
Executing agency: Ministry of Education and Vocational Training (MENFP)
Project name: Pilot of the One Laptop per Child Model
Project and loan contract numbers: HA-T1093
Brief description of the project's objectives and components: The objective of the project is to test the efficiency of one-to-one computing in a context of extreme poverty by piloting it in public and non-public schools in Haiti. The Project will consist of four components the first one being sampling of approximately 40 communities, the second components will consist of development and distribution of quality inputs for schools, the third component will provide technical support at the school level by acquisition of inputs and a comprehensive training program and the fourth component will consist of an evaluation tool.
Estimated date of project approval by the Board of Executive Directors: February 2008
Estimated date of signature of the technical assistance: March 30, 2008
Estimated date of the final disbursement: March 2009

A. Introduction

Procurements for the proposed project will be carried out in accordance with the *Policies for the Procurement of Works and Goods Financed by the Inter-American Development Bank* (GN-2349-7), of January 2005; and the *Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank* (GN-2350-7), of January 2005, and with the provisions established in the loan contract and this procurement plan.

B. Procurement plan

The procurement plan for *Pilot of the One Laptop per Child Model* which covers the project in its entirety[1] has been agreed between the Bank and the Ministry of Education and Vocational Training. The plan, which is summarized in Appendix 1, indicates the procedure to be used for the procurement of goods, the contracting of works or services, and the method of selecting consultants, for each contract or group of contracts. It also indicates cases requiring prequalification; the estimated cost of each contract or group of

[1] The first 18 months of project execution are counted from the date of publication of the general procurement notice, or the first specific procurement notice published following approval of the loan, whichever is earlier.

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contracts; the requirement for prior or post review by the Bank; and estimated dates for the publication of specific procurement notices and completion of the contracts included in this project. The procurement plan will be updated annually or whenever necessary or as required by the Bank.

The procurement plan is available at the Ministry of Education and Vocational Training.. It is also available on the Bank's website: Project procurement information.

C. Project procurement

The following is a general description of the procurement planned for the proposed project.

Works procurement: The works to be contracted include the following: *[describe the general type of works]* **N/A**

Goods procurement: The goods to be procured for this project include the following:

1. Didactic material for all 60 schools
2. Alternative powered devices
3. 70 servers
4. Energy systems for 60 schools
5. Installation of Security in schools
6. Procurement of 3,700 XO laptops
7. Procurement of 10,000 XO laptops by the OLPC Foundation

Project goods requiring ICB will be procured using the SBDs issued by the Bank. Procurement subject to NCB and PC will be undertaken using bidding documents agreed upon with the Bank.

The capacity of the MENFP for the procurement of the operation has been assessed as high risk, therefore all the procurement processes to be carried out will be supervised by the Bank on an ex-ante basis. The execution of procurement and contracting will be carried out in accordance with the *Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank* (GN-2349-7 and current version) and the *Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank* (GN-2350-7 and current version) and Annex Ad Hoc.

The OLPC Foundation is co-financing the proposed project through the provision of 10,000 XO laptops. For this contribution OLPC's procurement policies will apply. In addition to the XO laptops financed by the OLPC Foundation, the Bank will procure 3,700 XO laptops in accordance with the provisions in Policy GN-2349-7 (Cl. 3.6(c), the XO laptops for this project on a sole-source basis from the OLPC Foundation. A request for an eligibility waiver for the 3,700 financed with Bank resources is hereby submitted since the manufacturer is located in China. The OLPC Foundation is the sole manufacturer and

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distributor of the XO laptop, which was designed to provide children in developing countries with sufficiently affordable access to new channels of learning. The monetary value of the laptop for this project is US$188 per laptop.

Procurement of non-consulting services:

Non consulting services for the project include:

1. Connectivity
2. Development of Creole OLPC content (several lots)
3. Repair and maintenance
4. One Process and management training
5. Community awareness training
6. Immersion team
7. Summer camp immersion trainings

Procurement of consulting services: Consulting services for the project include:

1. Pedagogical and ICT counselors
2. Sampling services
3. Consultants for the launching team
4. Qualitative assessment and analysis
5. Field observation

The consulting firms to be hired for the project will be selected using the standard request for proposals (RFP) issued by the Bank, or an RFP satisfactory to the Bank in cases where the standard RFP is not applicable. Individual consultants will be selected bearing in mind the provisions established in chapter V of the policy in document GN-2350-7.

Short lists of consultants for consulting services estimated to cost less than US$200,000.00 equivalent per contract, may consist entirely of national firms.

Operating expenses: The following operating expenses will be financed by the Bank:

1) Project Coordination team

Project operating expenses to be financed by the Bank may be contracted using the executing agency's procedures that have been previously reviewed by the Bank and classified as satisfactory.

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Others: *[Indicate whether there is any special provision for scholarships, grants, acquisition of land, claims, and rights of way necessary for project execution, etc. Indicate how the procurements mentioned in this section are to be carried out].* **N/A**

Advance contracting and retroactive financing: *[Describe arrangements for advance contracting and retroactive financing included in the project, if any].* **N/A**

D. Bank review of procurement decisions

All contracts will be subject to prior review by the Bank in accordance with Appendix 1 of the policies for the procurement of works and goods and the selection of consultants, respectively.

E. Domestic preference

Bids offering goods originating in the borrower's country will receive a 15% price preference in contracts requiring international competitive bidding, as established in Appendix 2 of the procurement policies. *[This section needs to be verified to ensure that it agrees with the provisions of the loan contract.]* **N/A**

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Appendix 1

Procurement Plan[2]

Country: Haiti
Borrower: Government of Haiti
Executing agency: Ministry of Education and Vocational Training (MENFP)
Project name: Pilot of the One Laptop per Child Model
Project and loan contract numbers: HA-T1093
Brief description of the project's objectives and components: The objective of the project is to test the efficiency of one-to-one computing in a context of extreme poverty by piloting it in public and non-public schools in Haiti. The Project will consist of four components the first one being sampling of approximately 40 communities, the second and third components will consist of development and distribution of quality inputs for schools and the fourth component of an evaluation tool.
Estimated date of project approval by the Board of Executive Directors: February 2008
Estimated date of signature of the technical assistance: March 30, 2008
Estimated date of the final disbursement: March 2009

[2] All project contracts should be included, even if not financed by the Bank, indicating the source of funding in each case.

Project: Pilot of the One Laptop per Child Model
Project number: HA-T1093
Period included in this Procurement Plan: From: 04/07 until 06/09

Ref. No.[3]	Description and type of the procurement contract	Estimated Contract Cost (US$)	Procurement method [4]	Review (ex-ante or ex-post)	Source of financing and percentage		Pre-qualification [5]	Estimated dates		Status [6] (pending, in process, awarded, cancelled)	Comments
					IDB %	Local/ Other %	(Yes/No)	Publication of specific procurement notice	Completion of contract		
	1. Goods										
	○ **Good 1** Didactic material for all 60 schools	124,600.00	NCB	Ex-ante	100%		No	April-08	September-08		
	○ **Good 2** 3,700 XO laptops	701,480.00	DC	Ex-ante	100%		No	April-08	December 08		
	○ **Good 3** 10,000 XO laptops (co-financing)	1,880,000.00	DC	Ex-ante	-	100% (OLPC)	No	April 08	December 08		
	○ **Good 4** Alternative powered devices	66,750.00	DC	Ex-ante	100%		No	April 08	December 08		
	○ **Good 5** 70 servers	80,100.00	NCB	Ex-ante	100%		No	June 08	December 08		
	○ **Good 6** Energy systems for 60 schools	100,000.00	ICB	Ex-ante	100%		No	June 08	November 08		
	○ **Good 7** Installation of Security in schools (Several lots)	16,020.00	DC	Ex-ante	100%		No	August 08	November 08		

[3] If a number of similar individual contracts were to be executed in different places or at different times, these can be grouped together under a single heading, with an explanation in the comments column indicating the average individual contract amount and the period during which they would be executed. For example, an education project that includes school construction might include an item "school construction" for a total of US$20 million, and an explanation in the comments column such as: "This encompasses some 200 contracts for school construction averaging US$100,000 each, to be awarded individually by participating municipal governments over a three-year period between January 2006 and December 2008."

[4] **Goods and Works**: **ICB**: International competitive bidding; **LIB**: limited international bidding; **NCB**: national competitive bidding; **PC**: price comparison; **DC**: direct contracting; **FA**: force account; **PSA**: Procurement through Specialized Agencies; **PA:** Procurement Agents; **IA:** Inspection Agents; **PLFI**: Procurement in Loans to Financial Intermediaries; **BOO/BOT/BOOT:** Build, Own, Operate/Build, Operate, Transfer/Build, Own, Operate, Transfer; **PBP**: Performance-Based Procurement; **PLGB:** Procurement under Loans Guaranteed by the Bank; **PCP**: Community participation procurement. **Consulting Firms**: **QCBS**: Quality- and Cost-Based Selection **QBS**: Quality-Based Selection **FBS**: Selection under a Fixed Budget; **LCS**: Least-Cost Selection; **CQS**: Selection based on the Consultants' Qualifications; **SSS:** Single-Source Selection. **Individual Consultants**: **NICQ**: National Individual Consultant selection based on Qualifications; **IICC**: International Individual Consultant selection based on Qualifications

[5] In the case of new Policies it applies only for Goods and Works. In the case Old Procurement Policies it applies for Goods, Works and Consulting Services.

[6] This column "Status" should be used for retroactive procurement and for procurement plan updates.

Ref. No.[3]	Description and type of the procurement contract	Estimated Contract Cost (US$)	Procurement method [4]	Review (ex-ante or ex-post)	Source of financing and percentage		Pre-qualification [5]	Estimated dates		Status [6] (pending, in process, awarded, cancelled)	Comments
					IDB %	Local/ Other %	(Yes/No)	Publication of specific procurement notice	Completion of contract		
	2. Civil works										
	3. Non-consulting services										
	○ **Non consulting Service 1** Connectivity	170,880.00	ICB	Ex-ante	100%		No	April 08	June 09		
	○ **Non consulting Service 2** Development of Creole OLPC content (several lots)	133,500.00	QSB	Ex-ante	100%		No	April 08	October 08		
	○ **Non consulting Service 3** Repair and maintenance (several lots and locations)	71,200.00	DC	Ex-ante	100%		No	June 08	June 09		
	○ **Non consulting Service 4** Process and management trainings	11,033.00	DC	Ex-ante	100%		No	July 08	July 08		
	○ **Non consulting Service 5** Community awareness training	4,005.00	DC	Ex-ante	100%		No	August 08	August 08		
	○ **Non consulting Service 6** Immersion team (several locations)	80,100.00	DC	Ex-ante	100%		No	July 08	August 08		
	○ **Non consulting Service 7** Summer camp immersion trainings (several locations)	137,505.00	DC	Ex-ante	100%		No	July 08	September 08		

Ref. No.[3]	Description and type of the procurement contract	Estimated Contract Cost (US$)	Procurement method [4]	Review (ex-ante or ex-post)	Source of financing and percentage		Pre-qualification [5]	Estimated dates		Status [6] (pending, in process, awarded, cancelled)	Comments
					IDB %	Local/ Other %	(Yes/No)	Publication of specific procurement notice	Completion of contract		
	4. <u>Consulting services</u>										
	○ **Consulting services 1** Pedagogical and ICT counselors	108,936.00	CQS	Ex-ante	100%		No	April-08	August-09		
	○ **Consulting services 2** Sampling services	17,800.00	DC	Ex-ante	100%		No	April-08	August-08		
	○ **Consulting service 3** Fees of personnel of launching team (approximately 30 consultants)	209,328.00	NICQ	Ex-ante	100%		No	June 08	June 09		
	○ **Consulting services 4** Qualitative assessment and analysis	100,000.00	FBS	Ex-ante	100%		No	April 08	June-09		
	○ **Consulting services 5** Field observation	100,000.00	FBS	Ex-ante	100%		No	August 08	June 09		

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Appendix 2

Capacity of the executing agency and supervision of procurement by the Bank

Assessment of the executing agency's capacity to administer procurement

The Project Coordinating Unit (PCU) will be responsible for carrying out project procurements. Having assessed the capacity of the executing agency (Ministry of Education and Vocational Training) to carry out the procurement actions, the Bank rates the overall risk to the project arising from the administration of procurement as average.

Significant deficiencies identified and corrective actions agreed upon are summarized below:

Deficiencies	Corrective action	Completion date	Comments
Lack of experience with the overall public procurement and with Bank's policies	Training by the Country Office in Haiti with the launching of the operation	April 2008	COF has given trainings on a regular basis

Frequency of procurement supervision

Procurement will be done with prior review and in order to build capacity of the PCU training will be given at the launching of the project.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-__/08

Haiti. Nonreimbursable Technical Cooperation ATN/_____-HA
Pilot of the One Laptop per Child Model

The Board of Executive Directors

RESOLVES:

1. That the President of the Inter-American Development Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such agreements with the Republic of Haiti, as may be necessary and to take such additional measures as may be pertinent for the execution of the plan of operations referred to in Document AT-_____ with respect to a non-reimbursable technical cooperation to support the pilot of the one laptop per child model.

2. That up to the amount of US$3,000,000, shall be authorized for the purpose of this resolution, chargeable to the resources of the Special Program for Employment, Poverty Reduction and Social Development in Support of the Millennium Development Goals of the Ordinary Capital resources of the Bank.

3. That the above-mentioned amount is to be provided on a nonreimbursable basis.

(Adopted on ___ _____ 2008)