CASE STUDY: EDUCATION PROJECT IN HAITI

1. Background

1.1. On January 12, 2010, a 7.3-magnitude earthquake struck Haiti. Approximately 222,750 people died, 1.2 million were left homeless, and 500,000 were displaced. In the worst-hit areas much of the infrastructure was destroyed, causing mass migration to Port-au-Prince and putting intense pressure on an already-weakened network of social services.

1.2. Even before the earthquake, Haiti was still in recovery after a series of hurricanes and other external shocks in 2008. The country was testing the limits of the scarce resourced and underperforming education sector, which was struggling with limited access and low quality education, and a Ministry of Education and Professional Training (MENFP, its
initials in French), which was institutionally weak and unable to regulate and supervise the sector.

1.3. The earthquake worsened problems created by these circumstances. Approximately 50% of schools were destroyed, and the damage and destruction to the education system was estimated at US$ 478.9 million.

1.4. In August 2010, a program to reorganize the education sector laid the foundation to create an education system for all children that is well managed, without school fees, publicly funded, and dedicated to providing quality education services as well as social services, for a period of five years. The estimated cost is approximately US$ 4.3 billion. The new educational model is expected to consolidate the preschool, primary, and intermediary levels (from 1st to 9th grade) into a single school instead of having three separate schools (preschool, primary school [1st to 6th grade], and middle school [grades 7 to 9]).

2. The government’s education plan

2.1. This US$ 30 million project is the first step towards responding to the short-term needs for the reconfiguration of the education system and lays the foundation for long-term support for educational reform in Haiti.

2.2. The project will begin on January 3, 2011 and is planned for a 2-year period.

2.3. The final goal of the project is to improve the provision and quality of educational services at the preschool and primary levels in 30 schools.

2.4. The objectives of the project are: (i) to provide quality infrastructure, (ii) to improve educational quality and provide educational tools, and (iii) to implement an effective campaign for support and acceptance of the project.

2.5. The project costs are as follows:
<table>
<thead>
<tr>
<th>Categories</th>
<th>Funding</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Provision of quality infrastructure</strong></td>
<td>23,750,000</td>
<td>79%</td>
</tr>
<tr>
<td>1.1. 30 schools built</td>
<td>18,450,000</td>
<td>62%</td>
</tr>
<tr>
<td>1.2. 30 schools equipped</td>
<td>4,850,000</td>
<td>16%</td>
</tr>
<tr>
<td>1.3. 30 schools with maintenance contracts</td>
<td>450,000</td>
<td>1%</td>
</tr>
<tr>
<td><strong>2. Education quality improvement</strong></td>
<td>2,750,000</td>
<td>9%</td>
</tr>
<tr>
<td>2.1. 300 teachers trained</td>
<td>989,092</td>
<td>2.6%</td>
</tr>
<tr>
<td>2.2. 9,000 school packages for students produced and delivered</td>
<td>1,750,000</td>
<td>6%</td>
</tr>
<tr>
<td>2.3 300 school packages for teachers produced and delivered</td>
<td>10,908</td>
<td>0.04%</td>
</tr>
<tr>
<td><strong>3. Support and acceptance for the project</strong></td>
<td>1,500,000</td>
<td>5%</td>
</tr>
<tr>
<td>3.1. Communication campaign designed</td>
<td>450,000</td>
<td>1%</td>
</tr>
<tr>
<td>3.2. Communication campaign disseminated</td>
<td>1,050,000</td>
<td>4%</td>
</tr>
<tr>
<td><strong>4. Successful project management</strong></td>
<td>2,000,000</td>
<td>7%</td>
</tr>
<tr>
<td>4.1. Project completed</td>
<td>1,380,000</td>
<td>5%</td>
</tr>
<tr>
<td>4.2. Evaluations completed</td>
<td>310,000</td>
<td>1%</td>
</tr>
<tr>
<td>4.3. Internal and external audits completed</td>
<td>310,000</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>30,000,000</td>
<td>100%</td>
</tr>
</tbody>
</table>
### 3. Logical Framework

<table>
<thead>
<tr>
<th>Narrative summary</th>
<th>Indicators</th>
<th>Verification methods</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Final Result (Impact)</strong></td>
<td>• Improve the provision and quality of educational services at the preschool and primary levels</td>
<td>• 80% of students pass their final exams with a grade of at least 70/100</td>
<td>• Student records&lt;br&gt;• Graduation grades compared to past years</td>
</tr>
<tr>
<td><strong>Objective 1</strong></td>
<td></td>
<td>• 30 new schools in operation which comply with building codes and design guidelines</td>
<td>• Biannual reports from supervisory consultants and monitoring units</td>
</tr>
<tr>
<td>Provision of quality education infrastructure</td>
<td></td>
<td>• 30 schools constructed, equipped, and with maintenance contracts</td>
<td>• Report from external consultant or engineer</td>
</tr>
<tr>
<td><strong>Results</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 30 schools built&lt;br&gt;• 30 schools with equipment installed&lt;br&gt;• 30 schools with maintenance contracts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Objective 2</strong></td>
<td></td>
<td>• 300 trained teachers will provide classroom education with new educational materials</td>
<td>• Biannual reports from supervisory consultants and monitoring units</td>
</tr>
<tr>
<td>Results</td>
<td>Objective 3</td>
<td>Results</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>---------</td>
<td></td>
</tr>
</tbody>
</table>
| • 300 teachers trained  
• School packages for teachers, produced and delivered  
• School packages for students, produced and delivered | • Positive acceptance of the project  
• Target population understands the objectives of the project | • 80% of the target population has heard the messages on the various radio stations  
• 40% of the population has seen the spots on TV channels |
| • 90% of teachers attend and actively participate in workshops  
• 80% of teachers pass teaching evaluation exams with a sufficient grade  
• 90% of teachers use school packages effectively in their teaching  
• 100% of registered students receive and use school packages | • Observation guides for measuring teacher performance in the classroom  
• Educational statistics and reports from specialists and teachers | • Surveys of people who have and listen to radio  
• Surveys of people who have and watch TV |
| | Teachers actively participate in technical support | |
### Results Matrix

**Project goal**
Improve the provision and quality of educational services at the preschool and primary levels

<table>
<thead>
<tr>
<th>Component</th>
<th>Base</th>
<th>S 1</th>
<th>S 2</th>
<th>S 3</th>
<th>S 4</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 1: Provision of quality infrastructure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 schools built</td>
<td>0</td>
<td>5</td>
<td>15</td>
<td>10</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td>30 schools equipped</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>30 schools with maintenance contracts</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td><strong>Objective 2: Education quality improvement</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300 teachers trained</td>
<td>0</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>100</td>
<td>300</td>
</tr>
<tr>
<td>300 school packages for teachers produced and delivered</td>
<td>0</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>100</td>
<td>300</td>
</tr>
<tr>
<td>9,000 school packages for students produced and delivered</td>
<td>0</td>
<td>1,000</td>
<td>2,000</td>
<td>3,000</td>
<td>3,000</td>
<td>9,000</td>
</tr>
<tr>
<td><strong>Objective 3: Implementation of a support campaign</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200 television spots on 4 channels</td>
<td>0</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>200</td>
</tr>
<tr>
<td>5,000 minutes in spots at 15 radio stations</td>
<td>0</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>2,000</td>
<td>5,000</td>
</tr>
</tbody>
</table>

**Note:** This is an excerpt from the Project Results Matrix. For the purpose of the exercises, parts of it are omitted. The results shown in this matrix are equivalent to the products represented in the WBS.
1. **Project Management**

1.1. **Project Board of Directors.** The supervisory project board includes the technical director from the Ministry of the Economy and Finance (TD), who will act as board president, a director from the Ministry of Education (DME), a director from the Ministry of Public Works (MPW), a delegate from the Economic and Social Assistance Fund (ESAF) a representative from the Association of Certified Teachers and a delegate from the civil society representing parents and students.

1.2. **The project manager** was elected prior to the beginning of the project and began work on January 1, 2011.

1.3. **Project Implementation.** The Ministry of the Economy and Finance (MEF) will execute the project through ESAF.

1.4. The executive unit will eventually include the project manager under the supervision of the MEF technical director, as well as three specialists who will each manage one of the 3 components. Additional personnel will include a financial accounting specialist, a procurement specialist, a specialist responsible for monitoring and evaluation and an IT specialist.

1.5. Due to the hiring and internal structuring process, it is assumed that the unit will not be operational during the first two months of the project's implementation.
Timeline and Project milestones

1. Objective 1: Provision of quality infrastructure

1.1. Construction. The selected contractors are anticipated to be able to construct 30 schools within the planned timeline.

- Construction work was granted through an international tender, a process which is expected to take two months until signature of the contract.
- As in most procurement processes, in this case, risk mitigation suggests planning for one month of lag time from signing the contract to beginning implementation.
- It will take an estimated three months before signature of the contract for supervisory services for construction and structural review.

1.2. External equipment and work. Once school construction has been completed, schoolyards should be designed and equipment installed in children’s play areas. The duration of each task is 50 days.

1.3. School equipment. Once construction has been completed, schools will be equipped with furniture, computers, kitchens and libraries.

- It is estimated that equipment manufacturing will take 100 days from signature of the contract and all equipment will be imported from outside the country.
- The maintenance contract should take effect once equipment has been acquired and installed.

1.4. School maintenance. All school directors will receive a week-long maintenance training session before the schools are opened; training will incorporate the manual and installations available from ESAF.
2. **Objective 2. Education quality improvement**

2.1. **School packages.** The project proposes using the National School Meals Program for the packaging and distribution of school packages. Distribution is included in the cost of the school packages. ESAF already has a contractual agreement with the National School Meals Program (PNCS are its initials in French).

2.2. The design and development of all materials for student and teacher packages will be implemented in sequence to ensure quality control. A printing service outside the country will be contracted to print all the material.

2.3. It is anticipated that printing for each component will take a maximum of 50 days from signature of the contract.

2.4. **Professional development.** Training will be provided to the 300 teachers in the 30 new schools. It is assumed that the training for the 4 groups of teachers will last in a total 50 days and will be carried out during the 4 weeks prior to the beginning of each semester (12.5 days per group).

3. **Objective 3. Support and acceptance for the project**

3.1. This objective is focused on developing a communication campaign targeting support and acceptance for the project. The campaign will begin in August 2011 and will continue until February, 2013. A Memorandum of Understanding (MOU) has already been signed with MENFP.

3.2. The campaign will be distributed using the country's most popular media. The objective is to obtain support and acceptance of the project and to demonstrate that, little by little, school activities will return to normal.

4. **Objective 4. Project management**

4.1. **Project Implementation.** A reminder: after the official project kick-off, 2 months will be needed before the implementation unit is formed.
4.2. **Intermediate and final evaluations.** Approximately one month is required for each evaluation; the procurement process will take 2 months from the signature of the contract.

4.3. **Annual project audits.** ESAF will take on the responsibility of hiring an external auditor who complies with the funder's requirements to perform two annual audits which will be presented within 60 days of the end of each calendar year.

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**Project Costs**

1. **Objective 1: Provision of quality infrastructure (US$ 23.75 million)**

   1.1. **Construction.** School construction represents a cost of **US$ 15,000,000**. Payment will be made under the same conditions at the beginning and at the conclusion of the contract. Architectural, construction, and supervision companies may be contracted.

   1.2. The project will record the work progress in percentages by calculating contractor payments as well as earned value.

   1.3. **External equipment and work.** Design and construction of schoolyards will cost **US$ 900,000** for the 30 schools and the children's play area equipment will cost another **US$ 900,000** for the same 30 schools.

   1.4. **Equipment and furniture.** **Total amount US$ 4.85 million.** Estimated costs are as follows:

   - School furniture: US$ 30,000 per school
   - Electrical equipment: US$ 20,000 per school
   - Library furniture: US$ 20,000 per school
   - Computers: US$ 30,000 per school

   1.5 **School maintenance.** Maintenance for each school is estimated at **US$ 15,000 per year.**
2. Objective 2. Improvement of educational quality (US$ 2.75 million)

2.1. School packages for children. The design, development, and printing of school packages for children are estimated at **US$ 194,44** per package. Packages will also include school materials.

2.2. School packages for teachers. The design, development, and printing of school packages for teachers is estimated at **US$ 36.36** per package. Packages will also include teaching materials.

2.3. Professional development. It is estimated that 50 days will be needed for the training, which will be carried out by groups of teachers 4 weeks before the start of each semester. The costs for the professional development of 300 teachers for the 30 schools are **US$ 1,000,000** (includes the cost of school packages for teachers).

3. Objective 3. Support and acceptance for the project (US$ 1.5 million)

3.1. This component will use **US$ 1,500,000** to implement the communication strategy. The objective will be implemented in two stages: the first stage to design the communication strategy, which includes material, and the second for payment to the various methods of communication.

3.2. The communication campaign will use the media available in the country, which include television, radio, and print. The cost is estimated at **US$ 1,050,000**.

4. Objective 4. Successful project management (US$ 2.0 million)

4.1 Completed project. The project implementation will not use more than 5% of the entire program budget. Distribution of costs for project stages will be prorated and indirect.

4.2 Intermediate and final evaluations. Costs are estimated at **US$ 310,000**.

4.3 Annual project audits. Costs are estimated at **US$ 310,000**.
Project Procurements

Due to the high demand for work and the lack of companies that have the necessary capacity and equipment, the project will hold an international public bid for contracting architecture, construction, supervision, evaluation, and auditing companies.

Furniture will be procured through a national public bid to stimulate local industry. Contracts for installation and maintenance of computers will also be sought through a national public bid.

Due to the lack of local capacity, the development of the school packages for students, the teacher's training and the communication strategy will be contracted through a private bid for international companies. The communication campaign and dissemination of the messages will be contracted to a local company through a direct contract.

The various specialty services will be grouped together to the extent possible to limit the number of tenders. The purchase, installation, and maintenance of electrical equipment will be under a single bid to one company.

Teacher training will be conducted by qualified consultants who will be contracted once all training material is delivered and approved for the project.
Project Risks

Project management risks related to implementation.

- The difficulty in recruiting quality personnel for the executing unit may cause delays at the beginning of the project.

- The limited capacity of the construction sector to undertake planned school construction activities according to the new building codes may lead to delays in the timeline.

- The scarcity of quality construction materials to comply with hurricane and earthquake-resistance construction requirements may cause the project to exceed estimated time and costs.

- It is possible that the revision of the building codes through the Ministry of Public Works, Transport and Communication (MPWTC) will not be completed as scheduled (Ministry approval and signature is scheduled for the first week of February, 2011). Of the ten codes, previously approved, five had approval delayed by 30 days. These delays may cause further delays in the delivery of work to ME and in its use.

- Previous hurricane seasons have been intense; strong rains may delay project implementation. Hurricane season is from June to November.

- There are reports that show that the school packages are very limited and often do not serve their intended purpose. The Ministry has chosen the Canadian model for content development, but it is possible that the teachers will reject the new system.

- The next presidential elections may have a negative impact on the government's commitment to the project. The elections will be held in April, 2012. There is a 60% probability that the government will change.

- The turnover rate of qualified personnel to other executing units is very high. In the five projects in implementation, turnover due to various causes was at 40%. 
• Salaries for teachers are very low, and previous experiences have shown that they are generally not motivated to change their teaching methods. The probability that the government will approve a salary increase is 50%.

• The existence of radio and television stations in the community is very unpredictable. Of the 30 radio stations, 15 are already starting to shut down.

• Transport of equipment and other materials will be delayed due to the priority given to transport of food and medicine to camps. The probability of transport delays is 80%.

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**Project Assumptions**

*Project assumptions at the beginning of the planning stage*

• An international tender will be held to purchase all equipment; the project anticipates that a warehouse can be found to hold all the necessary equipment. The cost of the warehouse will be subsidized by the government.

• Teachers will support the project.

• 50% of the students are orphans, and the project expects that the Ministry of Social Welfare will be able to finish the enrollment process for identification and registration of each student. 80% of students do not have their school records.

• The project uses a construction model that was applied in the Dominican Republic. The time and cost estimates use historical data and it is projected that construction times will be similar.

• The project hopes that parents will support the project. There are jobs in green spaces that will be filled by parents, such as planting and sowing.

• The cement factory gave oral confirmation that they will have the capacity to produce the material needed for 30 schools.
• The government will approve the law allowing changes to the education system, particularly regarding changes to educational material. It is expected that the law will be passed by June 2012.

• The government committed to approving the land selected for the 30 schools; some of which will need to be constructed on state-owned parks, which are currently being used as tent camps for families who lost their houses in the earthquake.

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**Project Stakeholders**

• Technical Director from the Ministry of Economy and Finance. The director has power and influence and will expect detailed information on the use of project finances every trimester.

• Director from the Ministry of Education. The director is concerned about changing current educational methodology, and particularly concerned about the Canadian method, which he is not familiar with. The new methodology was chosen by the Ministry and will be used to develop the education packages.

• Director from the Ministry of Public Works. The director has many other priorities in his job and has never attended project meetings; it is hoped that he will support the process by approving new building codes and the plans for the new schools. We have discovered that the director does not fully agree with the school design, which is a copy of a project in the Dominican Republic, and that he believes that the design should reflect the local identity.

• Representative from the Association of Certified Teachers. The representative is a candidate for Minister of Education in the upcoming elections and is very busy with preparations for the campaign.

• Delegate from the civil society representing parents and students. The delegate has various conflicts with the parents and does not seem to have any influence to convince them to support the project.
• Director from the Ministry of Commerce and Industry. The director approves contracts for foreign importation of goods and has only given priority to the transport of food and medicine. He has influence over the Director of Public Works.

• Parents and students. 90% of families lost their homes and live in camps; ten of the schools will be constructed in five of the camps and this is beginning to cause concern among families that they will lose their places.

• Radio and Television broadcasters. The broadcasters have been hit hard by the earthquake and with no advertising contracts, many are closing.

• Project funder/donor. The funder requests that reports are complete to approve disbursements. The funder approves procurement and changes to the project scope and timeline.
**Project team organizational chart**

- **Project Management Board (PMB)**
  - **Technical Director from MEF (TD)**
  - **Project Manager (PM)**
    - **Civil Works Specialist (WS)**
    - **Education Specialist (ES)**
    - **Communication Specialist (CS)**
    - **Financial Accounting Specialist (FS)**
    - **Monitoring and Evaluation Specialist (ME)**
      - **Monitoring and Evaluation Specialist (ME)**
      - **Procurement Specialist (PS)**
      - **Computer Technician (CT)**
    - **Civil Works Technician (WT)**
    - **Education Technician (ET)**
    - **Video Communication Expert (CV)**
    - **Procurement Specialist (PS)**
    - **Equipment Technician (EqT)**
    - **Education Trainer (ET)**
    - **Print Communication Expert (PC)**

**Members of the Project Board of Directors**

- Technical Director from the Ministry of Economy and Finance (TD)
- Director from the Ministry of Education (DME)
- Director from the Ministry of Public Works (MPW)
- Delegate from the Economic and Social Assistance Fund (ESAF)
- Representative from the Association of Certified Teachers (ACT)
- Delegate from the civil society representing parents and students (DCS)
Photographs