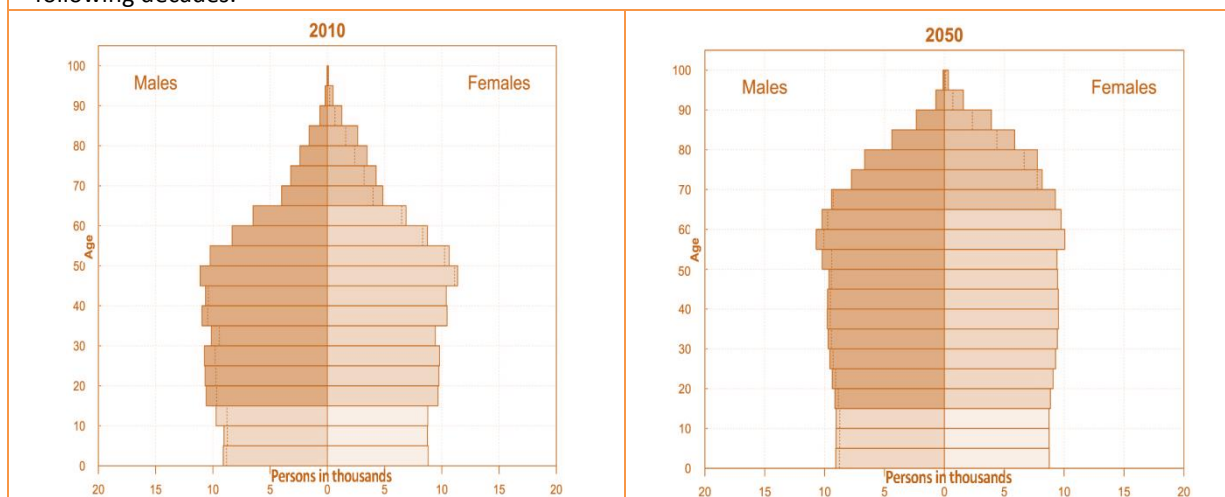


Country
Barbados
GENERAL SOCIOECONOMIC DATA
Demographic data

Total population ¹	Urban population ²	Rural population	Human Development Index ³	GINI Index ⁴
286,000	32%	68%	0.776 (High)	53.53

Tendencies in the change of population over time⁵

The number of youth and children will increase slightly in the next decade, and will likely decrease in the following decades.


Economic data

Gross Domestic Product (GDP) in millions USD ⁶	GDP per capita ⁷ in USD	Percentage of GDP invested in education ⁸	Expenditure per student at primary level (% of GDP per capita) ⁹
4,348 (2014)	15,199 (2014)	5.6 (2012)	22.7 (2008)

STRUCTURE & LEVELS OF THE MANDATORY EDUCATION SYSTEM

Level	Nursery		Mandatory Education: 12 years (ages 5 to 16)													
			Primary							Secondary						
Grade																
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16		

Attendance is not mandatory at ages 3 and 4 but universal provision is being pursued. Also, students are being incentivized to continue in school until age 18 for greater opportunity of certification.

¹ Banco Mundial, 2015. [Población total](#). Note: data estimate for 2014.

² Banco Mundial, 2015. [Población urbana \(% del Total\)](#). Note: data estimate for 2014.

³ Programa de las Naciones Unidas para el Desarrollo, 2014. [Tablas Estadísticas del Informe sobre desarrollo humano](#). Note: data for 2013.

⁴ Banco Mundial, 2015. [Índice de Gini](#). Nota: se presentan los datos disponibles del año más reciente.

⁵ Departamento de Asuntos económicos y sociales de las Naciones Unidas, 2012. [World Population Prospects: The 2012 Revision](#). Note: population pyramids are adapted.

⁶ Banco Mundial, 2015. [PIB \(USD a precios actuales\)](#). Note: data estimate for 2014.

⁷ Banco Mundial, 2015. [PIB per cápita \(USD a precios actuales\)](#). Note: data estimate for 2014.

⁸ Banco Mundial, 2015. [Gasto público en educación, total \(% del PIB\)](#). Note: data for the most recent year.

⁹ Banco Mundial, 2015. [Gasto por alumno, nivel primario \(% del PIB per cápita\)](#). Note: data for the most recent year.

POLITICAL STRUCTURE OF THE EDUCATIONAL SYSTEM

General political organization of the country

The government in Barbados consists of a Parliamentary Democracy. There are two major political parties.

National organisms in charge of making decisions on topics related to education

The **Ministry of Education, Science, Technology and Innovation** has the responsibility and decision-making power on all topics related to educational programs, policies and pedagogical processes.

Regional/local organisms in charge of making decisions on issues related to education

There are no local authorities that intervene in decision making within the island. Secondary schools are run by Boards (their Chairmen may be appointed by the Minister).

Aspects of the political context that influence school management

(no relevant aspects were highlighted)

GENERAL ENROLLMENT DATA

National enrollment

There are 44,154 estimated public school students (including primary and secondary) for the 2014-2015 school year.

Among these, 23,462 are primary and nursery students, and 20,692 are secondary students.

Attendance rate within population in school age

According to UNESCO's "Out of School" rate, only 2.9% of children of primary school age did not attend school in 2011.

SCHOOL INFRASTRUCTURE GENERAL STATUS

Number of school facilities and/or schools¹⁰

Within the public sector there are 10 nursery schools, 70 primary schools and 22 secondary schools.

Installed capacity/coverage in terms of physical spaces

Coverage is considered universal, with the exception of Nursery schools (3 and 4 year old age group)

General conditions of the education infrastructure

Utilities, drainage and sewerage systems are generally in order.

The age of the facilities varies among buildings: some are over 75-100 years old, the majority was built within the past 60 years, and the rest have been built within the last 20 years.

Termites present in softer or more poorly treated commonly used types of wood, commonly increase the need to replace doors, chalkboards, and wood trim in general. Salt air eventually corrodes steel reinforcements. Failure to maintain roofs leads to moisture getting to coral stone walls and causing mold in some rooms. Re-painting of walls does not keep pace with needs required to sustain clean surroundings.

Environmental risks affecting the infrastructure and constructions in process

Hurricanes are a constant risk every year from July to November.

Seismic activity has been experienced intermittently giving rise to a need for greater attention and planning.

Infrastructure expansion needs in short/medium terms

Needs identified recently include the general need to address maintenance, replace those buildings that are now too costly to maintain or to make safe and to ensure the location of school matches the population needs.

¹⁰ School facilities refer to the physical building. One or more schools may be contained within the same facilities.

Secondary sector is short of two schools and these are being planned for. One has been included in an approved loan. The site for the second school is under review, with funding also to be identified. Other problems include urban crowding and rural underutilization.

Other relevant information

- Buildings are generally repaired on an as-needed basis due to funding constraints:
- Responsive small private contractors facilitate an efficient response to problems in the primary level (only constrained by the Ministry's occasional inability to pay in a timely manner).
- Educational infrastructure is generally given priority, but there is a need for greater recognition/clarity of the budget required for adequate maintenance.
- The island's small size simplifies the challenge of management.

SCHOOL INFRASTRUCTURE MANAGEMENT

Main public organisms in charge of the management of the school infrastructure¹¹

Ministry of Education, Science, Technology and Innovation (MoE)

- **Project Implementation Unit**
Is responsible for maintenance of nursery and primary schools and for oversight of the execution of major civil works projects for all schools.
- **Planning Section**
Advises on the infrastructure priorities based on available data on changes within the education system and participates in the formulation of programmes to address the need for maintenance or new infrastructure.
- **Ministry Management**
Led by the Minister and supported by the Permanent Secretary, the Chief Education Officer and the department heads of the Ministry decide on what programmes or projects will be proposed to central government to be funded and executed.

Website: <http://mes.gov.bb/>

Ministry of Housing, Lands and Rural Development

Ensures school buildings are properly insured as the Government's central property manager.

Ministry of Health

Uses its inspectorate to check and ensure that health threats are eliminated by calling on the Ministry of Education to deal with any substandard situation – for example in the state of food service areas, drainage problems leading to mosquitoes, odors, interior ventilation issues that may arise etc.

Ministry of Finance

Is in charge of approving the annual budget and any programs specific for school infrastructure

Tenders Committee

Is in charge of the procurement process and purchases for Government departments and agencies. This applies for school infrastructure with a budget of over \$BDs 200,000 (100,000 USD).

Central Treasury

Is responsible for the administration of the resources and makes payments to the contractors (once approved by the MoE).

International Finance Institutions (IFI)

- There are no established government programs for funding. Construction of new schools or major works have generally been funded by loan programs from international financing agencies. Therefore IFIs take a major part in the process of planning and building new infrastructure.

Main laws, codes, and applicable regulation

¹¹

Education Act

States the guidelines that must be followed to achieve the educational standards set by the MoE in the country. It includes those that oblige the government to provide school infrastructure for anyone who requires it.

Available at: http://www.bstu.org/Barbados_Education_Act.pdf

Health and Safety Act: This new legislation passed in 2013. It mandates attention to all matters potentially affecting the health and safety of users. Further attention is being directed to all public facilities including educational infrastructure in light of the new Health and Safety legislation.

Town and Country Planning Act

Environmental Protection Department Regulations

Considerations on quality and safety codes

- Special importance has been given to the adequacy of construction methods in response to earthquake threats and to ensure that there is clarity regarding the correct standards that ensure buildings will not be subject to collapse under seismic activity as was seen recently in several, relatively new concrete structures in Haiti. Vigilance over steel bending practices, reinforcement protection with adequate blockwork infill and consideration of having adequate sheer walls are matters being highlighted for special attention by the building community and public agencies.

SPECIFIC PROGRAMS FOR INVESTMENT IN SCHOOL INFRASTRUCTURE

- In 2012, Barbados signed a loan with the Caribbean Development Bank for \$70Mn Bds (35Mn USD) to rebuild six primary schools, refurbish two others and build one new secondary school. Works were planned to be completed by 2018 but have been delayed. Resolution is expected to be imminent but the finish date will likely fall in 2019 or 2020 even if works proceed relatively smoothly.
- A private philanthropic trust is building new Nursery Schools to meet commitment to universal early childhood access from age 3 for the country. One school was built by 2013 and six more new schools are to be built in the next 3 years. One is presently scheduled to be completed in January 2016 and another to start construction in October 2015. An investment of approximately \$36M Bds (13M USD) overall is projected.

Comments and considerations

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TOOLS FOR PLANNING/MANAGING SCHOOL INFRASTRUCTURE

Main tools/systems planning/management of school infrastructure

Tools are underdeveloped or not in place. Also recent National Census data is still awaiting release.

Considerations and general comments

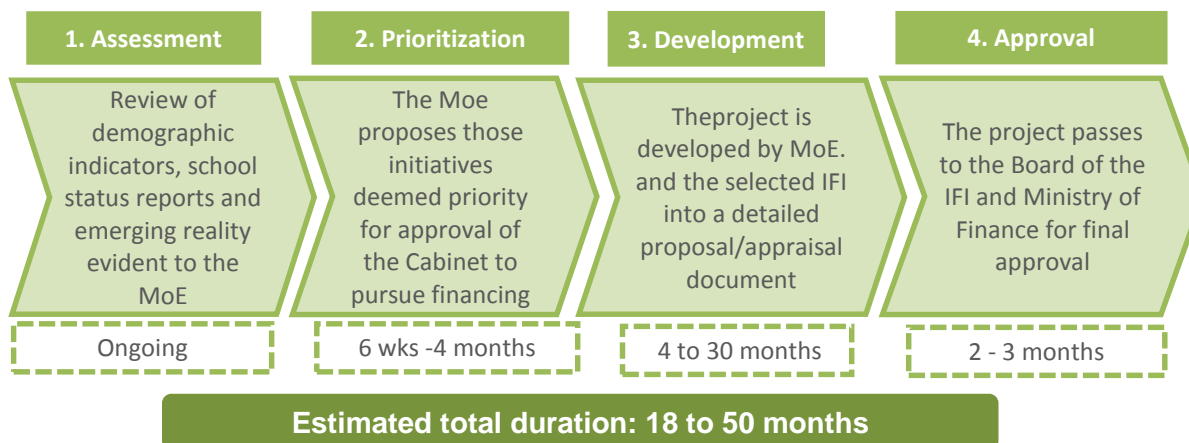
- There is a mapping study underway that will provide a Geographical Information System linked to a database drawing on relevant data from all major agencies and departments. The consultancy is to be completed in late 2015
- A separate survey of Secondary schools is to be facilitated this year to provide a preliminary budgetary estimate of current secondary schools' physical needs. Also, an overview status report on Primary School infrastructure is being updated by the Ministry's Project Unit.
- A database of school profiles is also being developed to provide easy reference to basic information and key recent repairs conducted at each school.

PLANNING FOR THE CONSTRUCTION OF NEW SCHOOLS AND MAJOR INTERVENTIONS IN EXISTING SCHOOLS (INTERVENTIOS WORTH OVER \$200,000 Bds -100,000 USD)

Overview of the process

Some Major projects have long gaps between them; so the process does not occur frequently. International Financial Institutions loan agreements have been used to date for most major projects. The adaptation of existing buildings is seldom considered, due to low availability of suitable options.

Planning scheme for the construction of new schools and major interventions



Phase 1: Needs assessment for new infrastructure

Stakeholders	MoE (Project Unit, Ministry Management, Planning Section) School management, Parental community.
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Duration	Ongoing
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There is no routine procedure with a set schedule for making these determinations. Sometimes the Project Unit generally, will advise on the condition of buildings that needs repair, with the input of its own engineers and/or on the basis of set standards for space and minimum facilities. Other times the Planning Unit advises with regard to the need for more infrastructure on the basis of projected population to be catered for. Also school directors and/or parental communities may advise the MoE regarding needs for improvements/more infrastructure.

Phase 2: Prioritization of projects

Stakeholders	MoE (Planning Section, Project Unit, Ministry Management), Central Government.
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Duration	6 weeks to 4 months
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There is no routine procedure with a set schedule for making these determinations. Usually the Planning Section in conjunction with the Project Unit and Ministry Management work to clarify the areas of need and propose a program of works for presentation for loan funding. This applied to the last programs formulated and approved. The Ministry of Education determines/approves the nature, scope, features of projects to some extent in conjunction with user groups. The Central Government (Cabinet) eventually confirms the need for new facilities based on existing info and the position taken by the Ministry of Education.

Phase 3: Development of the project proposal (identification of land, architectural project and budget)

Stakeholders	MoE; Town Planning; Min. of Housing and Lands, Consultants, School communities, IFI
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Duration	4 to 6 months for design (+2 years for land acquisition) (+ 8 to 9 months for tendering if needed)
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The mechanisms to secure land plots can be lengthy, and are limited by available government funds. The process may vary widely depending on land availability, the need for an acquisition and so on. The

procedure for compulsory acquisition requires cooperation among various Ministries/departments including Lands and Surveys, Ministry of Housing and Lands, Town Planning, Land Tax Department and the Ministry initiating the acquisition (in this case Education). Formalization of the transaction also involves the Cabinet, the Governor General and the Parliament at various stages of the process. Given the number of departments, slow action by any of these extends the process, which can be as long as two years to complete. Once land is secured, the design process begins.

School communities are expected to be involved in the design process and engage in the pre-design and design stages. The Architects are expected to facilitate adequate user-group feedback and participation. However more emphasis needs to be placed on this to ensure meaningful input at the design stage. Designs are usually completed in four to six months depending on the size of the proposed school.

Note: Hiring of design consultants will be carried out via the Public Tenders Committee if the contract sum to be paid overall exceeds Bds \$200,000. If consultants are selected through the Tenders Committee, the Tender process can be lengthy especially if funding is by IFI and approvals are required by that agency as well along the way (eight to nine months).

Phase 4: Approval and granting of resources

Stakeholders	Board of the IFI, Ministry of Education, Ministry of Finance and Parliament for the annual Budget
Duration	2 to 3 months

The MoE (Project Unit, Ministry Management) approves final designs. The designs are approved by Town and Planning, Housing and Lands departments.

The MoE hands over the project to the Ministry of Finance, which determines whether a particular project can be approved and budgeted for in the upcoming Financial Year. The financial year runs April 1 to March 31. Large projects wait for new Financial Years given the resource requirements. The budget is approved by the Parliamentary process.

Comments and considerations

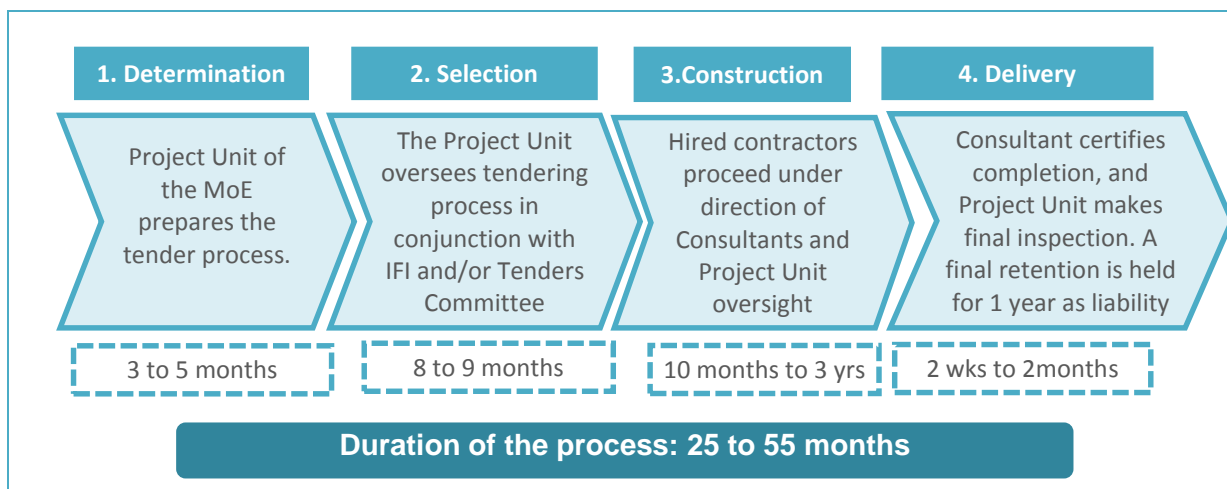
- There is a need to enhance tender guidelines to remove grey areas that can lead to tendering delays.
- Innovative architectonic designs may be considered in order to improve the learning environment and enhance emerging teaching practices. Implementing these innovative designs is possible with the opportunity provided to design new schools; however the cost and performance gains of such designs will have to be evaluated and deemed worthwhile.
- In Barbados, schools often have to be built or rebuilt on unique small sites, which call for a site-specific design. This has led to occasional gains in efficiency, although it is not always achievable with *cookie cutter* (similar or identical) designs.

IMPLEMENTATION PROCESS FOR BUILDING NEW SCHOOL INFRASTRUCTURE (NEW / REPLACEMENT / EXPANSION)

Overview of the process for the implementation of new school infrastructure

All public works have to follow the same process for building new infrastructure.

Schematic Process



Phase 1: Determination of the terms for the implementation of the project	
Stakeholders	MoE. Project Unit
Duration	3 to 5 months
The MoE Project Unit is directed to execute and prepare the tendering process in conjunction with the IFI and the Tenders Committee.	
Phase 2: Selection of contractors and procurement	
Stakeholders	Tenders Committee or IFI (if involved), Solicitor General's Office, Project Unit/Ministry/Users
Duration	8-9 months
<p>The Project Unit oversees tendering for contractors in conjunction with IFI and/or Tenders Committee. The projected budget of the intervention will determine the procedures the project will follow:</p> <ul style="list-style-type: none"> - Projects over \$200,000 (100,000 USD) require of public tender - Projects over \$500,000 (250,000 USD) also require Cabinet Infrastructure committee approval to selected contractor. <p>The tender process can be lengthy especially if the Project is funded by IFIs (8 to 9 months including hiring) whose approvals are required along the way. The Solicitor General's Office prepares and approves Contracts.</p> <p>Note: Thresholds are being adjusted to facilitate rather than restrict efficiency, specifically regarding the shift of thresholds related to use of contracts and public tender vs requested quotations. Proposed changes to procurement processes are currently under review. Quotations can be used with projects costing under \$200K Bds (100,000 USD).</p>	
Phase 3: Construction of the projected works	
Stakeholders	Ministry Project Unit, Contractor, Design Consultant, Central Treasury
Duration	9 months to 3 years (depending on the nature of the work)
<p>The execution of works is carried out by the hired private contractors, who are overseen by a Project Unit and by Design Consultants.</p> <p>The Design Consultants oversee construction in conjunction with Ministry of Works' clerks on site daily. Payment claims are submitted with Consultant Quantity Surveyor and Architect certification to the Project Unit of the Ministry of Ed. These are forwarded through the central Treasury for release of funds.</p> <p>The duration of the construction will depend on the size of the project, but extensions or additions of facilities have taken up to 18 months. Construction of a small primary school to accommodate about 300 children 300 would likely take 9 to 12 months.</p>	
Phase 4: Delivery of the work to the educational authority	
Stakeholders	Consultants, Contractor, Ministry Project Unit, School management

Duration	2 weeks to 2 months
<p>Once the Contractor finishes the construction process, the facility is handed over for use on achievement of Practical Completion. The Design consultant (architect) certifies the completion and the Project Unit performs a final inspection. This process can take 2 to 3 weeks or months depending on issues to be resolved finally and satisfactorily.</p> <p>When approved, the School Management takes over the facility and it is monitored through a 1 year Defects Liability period. Once that period is finished the final retention is released.</p>	
Comments and considerations	
<ul style="list-style-type: none"> - The tender process can be uncertain, generate delays, and be repetitive. It is important to ensure minimal delays. For that, new procurement guidelines are being developed at present. - Complications during the construction phase range from slow delivery of some inputs, such as windows; slower than ideal payment of invoices; end theft. - Contract preparation lags somewhat behind the timeframe established to execute works. Works proceed while contracts are under preparation. It is likely that an earlier start in the procurement process could assist in preventing this problem. - Some private initiatives occur from small Parent-Teacher Associations, assisted donations and volunteer assistance, but construction of public facilities requires compliance with governmental processes to ensure quality and safety. 	

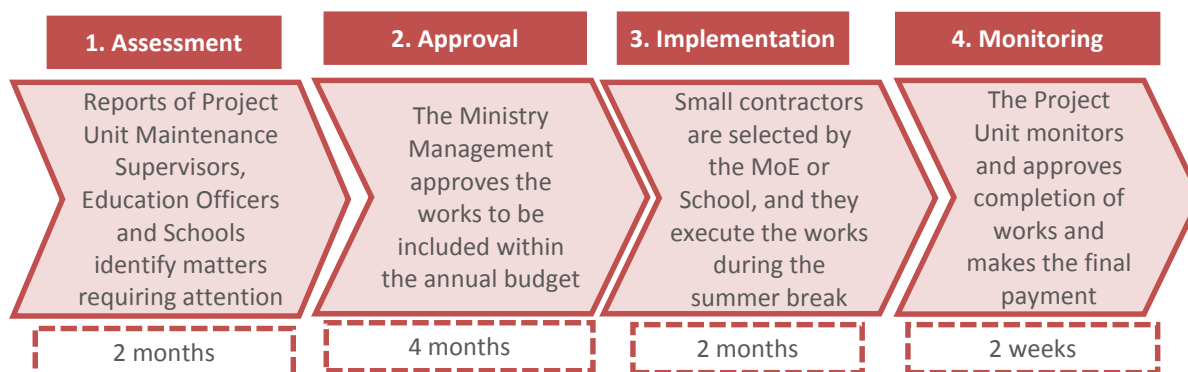
ROUTINE MAINTENANCE PROCESS (ORDINARY EVENTUALITIES)
Management process for minor maintenance
<p>There are no set processes for routine maintenance. There is some private sector and parent community interest in schools, although some PTAs may be more able to assist than others depending on the wealth of the particular school population. PTAs usually assist with painting and other minor projects that address conditions such as cleaning, retouching bathrooms, providing fans or sometimes air-conditioners where rooms are especially hot. This does not occur on a large scale. However, a trend towards more PTA activity is evident given the known funding constraints of Government.</p>
Comments and considerations
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EXTRAORDINARY MAINTENANCE PROCESS (CORRECTIVE/IMPROVEMENT)
General considerations
<p>Primary and Secondary school maintenance is funded by annual Treasury support. Maintenance for small works is carried out on an ongoing basis using tried and tested private small contractors on the basis of assessed quotations.</p> <p>The MoE's Project Unit is responsible for maintenance and minor enhancement/additions within Primary and Nursery schools and is provided an annual budget of approximately \$4M Bds. (\$2M USD) for small works (for the 80 schools existing in the country). The budget is approved on an item by item basis by the Project Unit that reviews advice from the Technical Section. Generally, small contractors are dispatched immediately on an as-needed basis to respond to small repairs such as plumbing leaks, break-ins, or other urgent matters. Estimates must be provided by multiple contractors before the start of works, and go through a formal approval process described below. for those matters that are not urgent in nature. Such as additions of classrooms and other small project enhancements like covered walkways, new nutrition serving centers or additional bathrooms/toilets. Contracts must be drawn up only for works over \$50,000 Bds (25,000 USD).</p> <p>Secondary schools' maintenance funding is provided by the MoE. Approximately \$2.5M Bds (\$1.25M USD) are allocated to address needs of the 22 schools annually. Each school's Board of Management uses the funds received independently to carry out minor repairs and maintenance as necessary. Other funds may also be approved for special projects requiring separate funding to particular schools.</p>

Major renovations or other improvements/expansions worth over \$200,000 Bds (100,000 USD) require/utilize public tender for design services and contractors, following the process as outlined for new construction. Sometimes, secondary school Boards may receive private funds to carry out extensions or other additions but these are to be tendered and monitored to completion through the MoE via the Project Unit.

Process used for minor repairs and improvements

This process applies for all repairs worth over \$50,000 BDS (25,000 USD) to \$200,000 BDS (100,000 USD)



Phase 1: Assessment of needs

Stakeholders	School management, MoE (Ministry Management, Project Unit)
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Duration	2 months
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The projects identified are compiled (one month) by the Project Unit and submitted for approval within the Ministry of Education as Draft Estimates.

Phase 2: Approval and granting of the resource

Stakeholders	MoE (Ministry Management, Project Unit), Ministry of Finance
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Duration	4 months (budget) + 2 months schedule and hiring
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The proposed works are included by the Ministry Management in the Annual program for the budget process. Submission of the estimates to Ministry of Finance is due in November. Budget for the new Financial Year is confirmed after meeting of Parliament in March.

Phase 3: Execution of the project/resources

Stakeholders	MoE (Ministry Management, Project Unit), School Management, Small Contractors
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Duration	8 weeks of the Summer break
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Once the budget is approved, the Project Unit sets the work schedule for the summer break.

The Project Unit and/or School Management (secondary schools) select the contractor from a prequalified small contractors list.

The Small prequalified contractors execute the works needed during the summer break (to avoid interference with the teaching period).

School Management in coordination with MoE's Project Unit supervises the works.

Phase 4: Monitoring of the executed budget

Stakeholders	Project Unit
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Duration	2 weeks
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The Project Unit monitors and approves completion of works for payment on a stage by stage basis withholding final payment until final inspection is realized and approved.

A final check of the works is done within the closing period of execution, and the works are accepted if there are no discrepancies.

Additional comments and considerations

- In term of execution times, this process is usually efficient unless there are unforeseen issues causing an expansion of the scope of works. Projects are planned carefully to ensure completion within the summer break is achievable.
- Funding has been constrained due to Government budget cuts. PTAs are encouraged to assist the maintenance of schools where they can but initiatives are to be approved by the Ministry.
- There is a need to improve maintenance capacity with continued budget enhancement and of the staff available.
- Budget increase is also necessary to allow early attention to emerging problems.
- Small additions to manpower at the maintenance supervision level would improve review of estimates before approval.

PROCESS FOR REPAIRING THE EDUCATIONAL INFRASTRUCTURE IN CASE OF NATURAL DISASTERS

There are no institutionalized mechanisms/sources of funding to financially support reconstruction of the school system in the case of disasters. Response will be as required by the situation.

OTHER CONSIDERATIONS AND COMMENTS

BEST PRACTICES OF THE COUNTRY THAT COULD BE SHARED (ACCORDING TO THE INTERVIEW)

Ongoing effort to improve construction standards and to apply them in spite of slower passage into law.

PRIORITIES FOR INVESTMENT

Addition of one secondary school to the existing 22.
Digital system for tracking responsible stakeholders of every step in the process.
Funding and mechanisms to improve maintenance and provision of adequate safety features.

GENERAL NOTES

- The data here stated is provided by a set of interviews performed during the months of September and October of 2015 to Richard Harrison, Project Manager at the Education Project Implementation Unit of the Ministry of Education, Science, Technology and Innovation.
- Any data reported in USD are based on exchange rates from October 2015.
- The duration of phases are estimates and not fixed times.
- Any errors in the interpretation of the stated information are the responsibility of Fundación IDEA.