

# Upgrading School Buildings in Mexico with Social Participation

## THE BETTER SCHOOLS PROGRAMME

Alastair Blyth, Rodolfo Almeida, David Forrester,  
Ann Gorey and Juan José Chávez Zepeda





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# FOREWORD

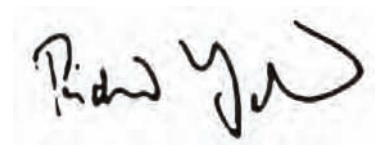
Improving the quality of education is a political and social priority in Mexico. In recent years, the OECD has been working with policy makers in both federal and state authorities, parent councils, school leaders and others in Mexico to implement an education reform strategy: a strategy to improve teaching, school management and leadership across schools.

The urgent need to address the quality of Mexico's vast building stock is an important part of the reform and quality agendas. The Better Schools Programme targeted 16 000 schools in urgent need of repair in Mexico. Implemented by the National Institute of Physical Infrastructure for Education (INIFED, *Instituto Nacional de la Infraestructura Física Educativa*), it represents a significant step forward in improving the quality of education provision through social participation in Mexico.

Many countries face challenges with regard to maintaining an existing school building stock to acceptable standards of quality. Providers of education have a responsibility to ensure the health, safety and security of children and spaces for learning. But educational spaces must also be fit for purpose in terms of their capacity to support the needs of the curriculum, pedagogy and innovation. In addition to making recommendations to improve programmes such as the Better Schools Programme (BSP), this report reflects on good practices in Mexico that may be useful to other countries.

This report is the outcome of the second national review by the OECD Centre for Effective Learning Environments (CELE). The first CELE review of the Secondary School Building Modernisation Programme in Portugal was conducted in 2009. Both reports draw on the experience of international experts and CELE.

I trust that this report will provide useful analyses, not only for Mexico, but also many other countries, of how a governance model based on social participation can contribute to maximising the value of investment in education infrastructure.



Richard Yelland  
Head of the Centre for Effective Learning Environments (CELE)  
July 2012



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Mexico's participation in the review was co-ordinated by Luis Benavides. The background information co-ordinated by Carlos Arámbula Garza formed a valuable contribution to the review. The Review Team would also like to acknowledge support and assistance of Ambassador Enrique Loeza Tovar and Pedro Sanchez Mejorada, as well as all the people the team met during the review visits.

The Report is the responsibility of the Review Team and the findings, analyses and conclusions – which are based on the information provided as well as observations – are those of the Review Team. Whilst the Review Team benefitted greatly from the information provided and discussions with a wide range of people, any errors or misinterpretations in this Report are its responsibility.

The report was written by the Review Team (Figure 1) led by Alastair Blyth under the supervision of Richard Yelland. Marco Fernandez of Duke University provided analytical support. The report was edited by Hannah von Ahlefeld.



■ Figure 1 ■ The OECD Review Team in Mexico





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EXECUTIVE SUMMARY



Carrying out work on a kindergarten roof © INIFED



Replacing the windows at Escuela Fernando Montes de Oca, Zacatecas © INIFED

# EXECUTIVE SUMMARY

## BACKGROUND

This is a report of a review undertaken by the OECD Centre for Effective Learning Environments (CELE) of Mexico's Better Schools Programme (BSP). The objective of the BSP is to refurbish 16 000 schools offering basic education in most urgent need of repair – pre-primary, primary, lower secondary and special needs schools – in Mexico's 31 states and the Mexico Federal District.

The Review Team was asked to focus on four key issues:

- Implementation and performance of the BSP, in terms of the emerging challenges in education in Mexico, in particular how the BSP addresses community participation, the physical quality of school buildings, and the selection of schools for funding;
- Governance structure and relationships between stakeholders;
- Funding mechanisms, levels of funding available, and the efficiency with which resources are used; and
- Outcomes and impact of the BSP to date in relation to engaging local communities, improving physical infrastructure and benefits to the local economy.

## DESCRIPTION OF THE BETTER SCHOOLS PROGRAMME (BSP)

The BSP is a federal programme implemented between 2008 and 2012 by the National Institute of Physical Infrastructure for Education (INIFED, *Instituto Nacional de la Infraestructura Física Educativa*) an independent federal agency responsible for regulating and advising on school buildings. A key characteristic of the BSP is that it is implemented with the participation of each school community through parents' associations, known as an Organisation of Social Participation in Education (OPSE, *Organización de Participación Social en Educación*). Promoting greater community engagement in schools through OPSE has been a major focus of the BSP.

## ORGANISATION AND GOVERNANCE

The governance model of the BSP is based on INIFED controlling the payment of funds directly to contractors and overseeing the implementation of the BSP, and the OPSE serving as the legal client on behalf of the school. Each OPSE is composed mostly of parents, who are elected by the parent community

as a whole. It is responsible for commenting on, taking decisions and supervising the school project; contributing to the transparency and presentation of financial accounts; verifying that the building materials and improvement actions are of good quality; and checking that the work is completed on time, with minimal disruption to educational activities.

The selection of projects and contractors through a lottery or *sortition* process is another innovative aspect of the BSP's organisation. The use of the *sortition* process to select the contractor from an approved list, whereby the quality and efficiency of contractors has already been assessed, ranked and recorded, is an efficient way to ensure that government work is allocated to contractors who have demonstrated ability to manage and deliver projects on time, within budget and to the specified standards.

## FUNDING AND COST EFFECTIVENESS

Between 2008 and 2012 – through the BSP and an emergency Sanitary Facilities Refurbishment programme conducted in 2009 involving 2 200 schools – INIFED aims to transfer up to MXN 1 million of federal funding per school for a total of 19 399 schools, affecting some 4.7 million students, at a total cost of approximately MXN 9 500 million. This exceeded the initial target of 16 000 schools assigned to INIFED for the BSP.

INIFED deployed resources effectively in line with the strict regulations and financial constraints governing the BSP's implementation. These define the procedures for identifying and prioritising schools, awarding contracts, construction specifications, materials to be used, resource allocation and schedules of work. However, the following caveats must be noted.

- Within the agreed scope and budget of the BSP, it has only been able to address a proportion of schools in urgent need of repair in Mexico; and
- For many of the 19 399 schools benefitting from the BSP, funds were not intended to be used to refurbish each school completely.

## IMPLEMENTATION

The implementation procedures devised by INIFED for the BSP were developed for a very specific context (i.e. a large number of small works contracts). INIFED has put in place detailed procedures regarding the administration of the BSP, from initial conception to the realisation of each project. The process of identifying priority schools and then, with the OPSE, prioritising work to be undertaken in these schools is efficient and can be adapted to each specific situation. It takes only a few days per school from diagnosing the physical condition of the school to defining the technical project, with the involvement and approval of the OPSE.

The procedure of awarding contracts for construction work through the *sortition* process, in co-operation with the OPSE and within the framework of an agreement with the state, takes only 3 to 4 months. The selection of local small- and medium-sized contractors by *sortition*, and the process of contractor payment made by bank transfer directly by INIFED, has instilled confidence of all parties in the transparency of the BSP. One consequence of the *sortition* process is that small- and medium-sized companies participating must keep improving their organisation and delivery; those that do not are excluded. These processes have also provided a welcome stimulus in terms of the creation of short-term construction jobs and associated expenditure to local economies. The fact that the OPSE addresses its letter requesting the subsidy directly to the President of Mexico raises the self-esteem of the OPSE and creates a feeling of ownership. The procedures have in-built feedback processes so that subsequent projects and rounds of the BSP benefit. In the future, a programme like the BSP could use master planning to demonstrate how a number of small projects – or the addition of a classroom, laboratory, media room or shelter – co-ordinated over time can improve a school.

## QUALITY

The quality of the built environment can make an important contribution to improving education quality. The school's built environment needs to complement and support the educational programme, the curriculum and pedagogies used, as well as meet the specific needs of teachers and students.

The BSP focuses on providing assistance to schools with buildings in urgent need of repair: it has not been designed to support schools to address the fundamental need to modernise spaces to meet the needs of 21st century education. Within its current remit, the BSP could better serve to complement, support and enhance federal and other programmes, particularly those that fall within the remit of the School Council of Social Participation, such as physical education programmes, recreational, artistic and cultural activities, and bullying prevention and reading programmes.

## SOCIAL PARTICIPATION

Social participation has been one of the cornerstones of the BSP and reflects a long history of social participation in Mexico. The BSP seeks to harness the energy and enthusiasm of parents in participating schools. While this activity is contributing to the success of the BSP, it is only likely to be sustained by strong leadership and ongoing support. The BSP has demonstrated how partnerships between the community and government can result in substantial benefits to the community and foster trust in the government's capacity to deliver quality education services. A clear decision-making framework, clarity of roles and expectations, and well-defined lines of responsibility have contributed to the successful engagement of parents and others in the BSP.

Future initiatives should look to building on these outcomes, in particular by reinforcing the role of the network of parents' associations in Mexico.

## 1. INTRODUCTION



After refurbishment of toilet block at  
Escuela Fernando Montes de Oca, Zacatecas - © INIFED



*This chapter briefly presents the Better Schools Programme in Mexico in the context of the objectives of the review, the structure of this report and a summary of the visit by the Review Team.*

# 1. INTRODUCTION

## 1.1 THE BETTER SCHOOLS PROGRAMME (BSP)

In November 2007, the newly elected Mexican Government set out its education and other policies in its National Development Plan 2007-12.<sup>1</sup> This included targets to improve participation and standards of all levels of education in Mexico. This was partly driven by international comparisons, notably results of the OECD Programme for International Student Assessment (PISA), and a commitment that “no school in poor condition should be left unrepaired”. In addition, results of a survey conducted earlier in 2007 by the Secretariat of Public Education (SEP, *Secretaría de Educación Pública*) indicated that 33 455 of the more than 178 000 schools offering basic education (pre-primary, primary, lower secondary and special needs schools) were in need of urgent repair and maintenance in Mexico’s 31 states and the Mexico Federal District (DF). In the following year, the Alliance for the Quality of Education, which was signed between the federal government and the teachers’ union (National Union of Educational Workers or SNTE), issued a commitment to establish what became the Better Schools Programme (BSP), supported by earmarked federal funding.

The BSP, which aims to repair 16 000 schools offering basic education in Mexico, is implemented by the National Institute of Physical Infrastructure for Education (INIFED, *Instituto Nacional de la Infraestructura Física Educativa*), a national body responsible for regulating and advising on school buildings. Between 2008 and 2012 – through the BSP and an emergency 2009 Sanitary Facilities Refurbishment programme involving 2 200 schools conducted in 2009 – INIFED will have injected funding of up to MXN 1 million per school into a total of 19 399 schools, affecting some 4.7 million students, at a total cost of approximately MXN 9 500 million. This exceeded the initial target of 16 000 schools assigned to INIFED for the BSP.

A key characteristic of the BSP is that it is implemented with the participation of each school community through parents’ associations, known as an Organisation of Social Participation in Education (OPSE, *Organización de Participación Social en Educación*). Promoting greater community engagement in schools through OPSE has been major focus of the BSP (INIFED, 2010).



## 1.2 OBJECTIVES OF THE REVIEW

INIFED asked the OECD Centre for Effective Learning Environments (CELE) to undertake a review of the Better Schools Programme (BSP) driven by INIFED with a view to carrying out an objective assessment and evaluation of the effectiveness of the programme.

The Review Team was asked to focus on four key issues:

- Implementation and performance of the BSP, in terms of the emerging challenges in education in Mexico, in particular how the BSP addresses community participation, the physical quality of school buildings, and the selection of schools for funding;
- Governance structure and relationships between stakeholders;
- Funding mechanisms, levels of funding available, and the efficiency with which resources are used; and
- Outcomes and impact of the BSP to date in relation to engaging local communities, improving physical infrastructure and benefits to the local economy.

The composition of the Review Team is presented in Annex B1.

## 1.3 STRUCTURE OF THE REPORT

The remainder of the report is organised into three main sections. Section 2 provides the national context with a description of the main characteristics of the Mexican education system, a summary of the key features of the BSP, and an outline of the implementation of the BSP. Section 3 analyses the programme, identifying its strengths, the challenges and problems it has faced, and opportunities for the future. Section 4 draws together conclusions and recommendations from the analysis.

## 1.4 THE REVIEW VISIT

The review visit took place from 16 to 24 April 2012. The Review Team met state authorities and visited 21 schools in three states (Oaxaca, Yucatan and Puebla), as well as Mexico DF (Table 1.1). These areas were selected because they represent different geographic conditions (hot humid, arid and temperate) as well as varied socio-demographic profiles (rural, urban or semi-urban). A programme of the review visit is presented in Annex B2. A summary of schools visited by the Review Team and the work undertaken in the school as part of the BSP is presented in Annex B3.

The Report is based on extensive interviews with INIFED and other federal and state officials, and on the evidence gathered as part of school visits by the Review Team. INIFED also provided briefing material in preparation for the review visit. The Review Team was able to draw on the findings of related OECD reports (OECD 2010, 2011b, 2011c) and its own experience as part of the OECD review team of the Secondary School Building Modernisation Programme in Portugal, conducted in 2009 (OECD, 2012).

The Review Team held discussions with a wide range of stakeholders, including SEP; representatives of state educational authorities; school principals, supervisors, teachers, the OPSE presidents (chairs) and other OPSE members; students; technical and social advisers to INIFED; and contractors involved in the programme. A list of people interviewed is provided in Annex B2.

Type of school	Number of schools visited	Range of enrolments per school	Range of budgets per project (K MXN)
Pre-primary	4	19 to 263	530 to 591
Primary	13	75 to 638	389 to 989
Lower secondary	2	72 to 219	523 to 802
Special school	1	250	742
<b>Total</b>	<b>20</b>	<b>19 to 638</b>	<b>389 to 989</b>

■ **Table 1.1** ■ **Summary of schools visited**

### NOTE

1. Each new Government in Mexico is constitutionally required to set out in a National Development Plan the policies it will pursue in its 6-year term.

## 2. CONTEXT AND FEATURES



Breaking up the old paving at Escuela Ermilo Abreu Gómez  
© INIFED



Constructing new classroom blocks © INIFED

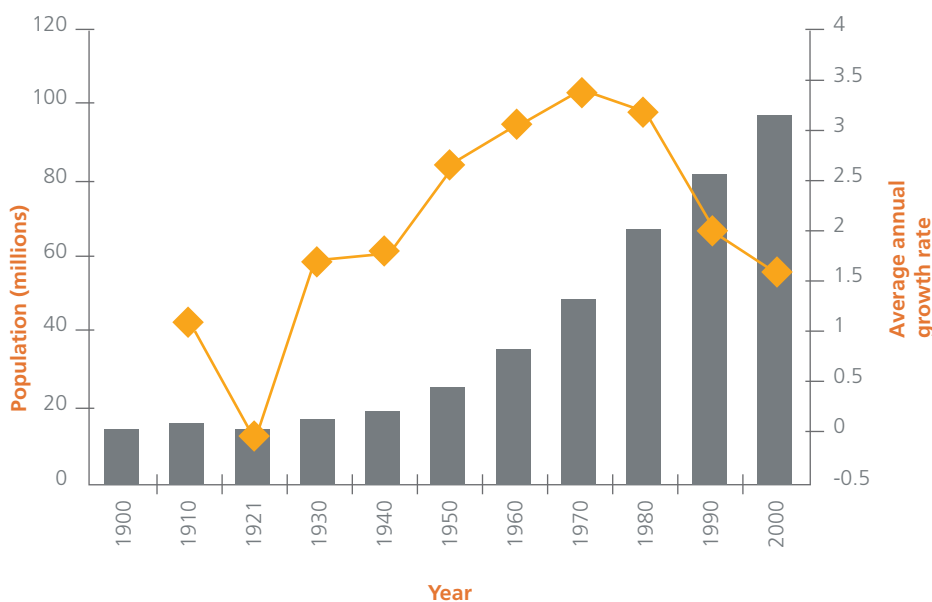
*This chapter presents the demographic, economic, education, political and financial context of the Better Schools Programme (BSP). The process of implementing the BSP is presented in detail, in addition to the organisational structure, roles of those responsible for implementing the BSP. Data are provided on the implementation of the BSP in the three states visited by the Review Team, Oaxaca, Puebla and Yucatan, and the Federal District.*

## 2. CONTEXT AND FEATURES

### 2.1 EDUCATION IN MEXICO

#### 2.1.1 DEMOGRAPHIC AND ECONOMIC CONTEXT

With a population of over 112 million<sup>1</sup>, Mexico is the 11th most populated country in the world and the largest in the Spanish-speaking world. It covers an area of nearly 2 million km<sup>2</sup>, making it the 13th largest country by area. Throughout the 20th century<sup>2</sup>, Mexico's population grew rapidly from 13 million in 1900 to 25 million in 1950 and then, supported by effective Government programmes to reduce infant mortality and increase life expectancy, up to 50 million in the early 1970s and 97 million in 2000. Only in the last decade has the rate of growth slowed down from a 3.5% per year growth peak in 1965, to 0.99% in 2005 (see Figure 2.1). As a result, 50% of the population in 2010 was aged less than 26 years, and although the rate of growth has slowed down, the total population is still projected to double over the next 40 years. Some 10% of the population speak an indigenous language and claim an indigenous heritage.<sup>3</sup>



■ **Figure 2.1** ■ Population of Mexico and average growth rate, 1900-2000

Source: Instituto Nacional de Estadística y Geografía in Mexico (INEGI)

Over the period as whole, this sharp population growth has been more than matched by Mexico's economic growth, which averaged over 5% between 1995 and 2001, and after a brief hiatus has continued to grow at around 4% per year, notwithstanding a second hiatus linked to the global recession in 2009 (World Bank, 2010a). As a result, Mexico has emerged as a leading middle-income country: its Gross Domestic Product (GDP), Purchasing Power Parity (PPP) adjusted, was estimated at USD 1 463 million in 2009 and USD 874 800 million in nominal exchange rates

(World Bank, 2010a). Mexico's standard of living, as measured in GDP in PPP per capita, was USD 13 200. The World Bank reported in 2009 that the country's Gross National Income in market exchange rates was the second highest in Latin America, after Brazil (World Bank, 2009).

This wealth is, however, very unevenly distributed. 17% of the population lives below Mexico's poverty line, and a high proportion of the population, perhaps 70% according to Government estimates, lack one of the 8 economic indicators used by the Mexican government to define poverty (Mexico Government, 2010). As in other countries in recent years, these disparities have been growing: between 2004 and 2008, the proportion of the population earning less than half of the median income rose from 17% to 21%, and the absolute levels of poverty rose considerably from 2006 to 2010 (CONEVAL, 2011).

### 2.1.2 POLITICAL AND GENERAL EDUCATION CONTEXT

The Republic of the United States of Mexico is a federation of 31 states plus the Mexico Federal District (DF). According to the 1917 constitution, the country's administration is split between the federal union, state governments and municipal governments. Each of these has an executive branch, with a President, Governor or municipal Mayor, respectively. At national level there is a legislative branch with a Senate and Chamber of Deputies; and a judiciary, headed by the Supreme Court of Justice. At the federal level, since its establishment in 1921, the Secretariat of Public Education (SEP, *Secretaría de Educación Pública*), one of 18 secretariats that make up the federal cabinet, has been responsible for the planning, regulation and promotion of education. Since every state of the Union is a free and sovereign state, it also has a legislative branch with local deputies and a judicial branch according to Article 116 of the Mexico Constitution and the Constitution of every state of the Union; each is ruled by its own legislative body and has its own Department of Education.

Under Article 3 of the Mexico Constitution, "Every individual has a right to be educated. The State including the federation, the states, the Mexico DF and the municipalities shall provide for preschool, primary and secondary education. Preschool, primary and secondary levels shall integrate the mandatory basic educational scheme." There are 15 years of mandatory education in Mexico, comprising early education, which has been compulsory from age 3 since 2002, and primary and middle education up to the age of 14.

In 2008-09, there were 25 million students enrolled in basic education, which accounts for 76% of the total students enrolled in education in Mexico: 4.6 million students are enrolled in pre-schools, 14.8 million in primary schools, and 6.2 million in lower secondary schools.

### 2.1.3 BASIC EDUCATION: A RESPONSIBILITY SHARED BETWEEN FEDERAL AND STATE GOVERNMENTS

In the early years of the Republic, much of the responsibility for delivering basic education rested with the state and municipal authorities. But from the 1930s to the 1970s, as pressures to provide education and basic literacy for the burgeoning 5 to 15-year-old population increased, SEP took progressively greater control over basic education, culminating in the Federal Education Law of 1973. This process was reversed in the early

1990s in the context of wider moves to decentralise power in Mexico. In 1992, the federal government, the trade union representing teachers in Mexico – the *Sindicato Nacional de Trabajadores de la Educación* (SNTE) – and state governors signed a National Agreement for the Modernisation of Basic Education (SEP, 1992), which transferred the operation of basic education to state governments. Article 13 of the new 1993 General Law of Education delegated responsibility for the delivery of “initial-basic education services, including indigenous and special education and other services for training teachers” to the 31 states. The Mexico DF continued to receive funds directly from SEP, which also administered the provision of basic education in the Mexico DF. According to Article 13, SEP retained responsibility for establishing and disseminating overall national policy for basic education and for regulating many aspects of its delivery, including training teachers, producing and updating free textbooks and determining school building standards. In 2008, the National Institute of Physical Infrastructure for Education (INIFED, *Instituto Nacional de la Infraestructura Física Educativa*) – which replaced the Administrative Board of the Federal School Construction Programme (CAPFCE, *Comité Administrador del Programa Federal de Construcción de Escuelas*) founded in 1944 – was created as the mechanism for establishing and monitoring school building standards.

#### 2.1.4 FINANCIAL CONTEXT

Education has been a policy priority in Mexico for many years. Between 2000 and 2008, expenditure on education as a percentage of GDP increased from 5.0% to 5.8%, in line with the OECD average (OECD, 2011b). As other countries with above-average proportions of their populations under the age of 15, Mexico spends a high proportion of education expenditure (2.9% of GDP) on primary and lower secondary education, and a very high proportion on pre-primary education. At over 20% of total public expenditure, education accounts for a higher proportion of Mexico’s public expenditure than any other OECD country (OECD, 2011b). This is, however, in part because total public expenditure on all services at 20% of GDP (OECD, 2011b) represents a lower proportion of GDP compared to any other OECD country. Excluding oil and gas revenues, which account for one third of the 20% in Mexico, the contrast with other OECD countries is even more striking (OECD, 2011c).

SEP’s education budget for basic education in 2012 is MXN 263 625 million. Most of this budget is transferred to the 31 states, which can use the funds for any education-related purpose in addition to the funds raised by the states themselves. SEP also allocates funds to the Federal District, the education budget for which is under direct federal control. SEP’s budget in the national accounts is broken down into three main categories: (i) direct expenses (subdivided into personal services, materials and supplies, general services, pensions and retirements, other recurrent expenses and capital investment); (ii) subsidies; and (iii) transfers (in each case sub-divided by recipient and between current and capital expenditure). The transfers are intended to cover only a proportion of states’ expenditure on basic education. In principle, each state may raise taxes and thereby increase its expenditure on education or other services. However, states have a much less buoyant tax base than the Federal Government with its VAT, income tax and oil and gas revenues. A recent OECD report (OECD, 2011c) concluded that states had not exploited fully their own tax raising powers. The result is that federal subsidies have consistently represented around 80% of total expenditure on basic education: e.g. 78% in 2008, compared with 22% from the states and 0.2% from the municipalities (OECD, 2011c).

In most states, there is no separate line in the education budget for maintenance costs. The responsible body must therefore determine the funds to set aside from within the overall budget to cover these costs. In 2008, Mexico spent 98.1% of its primary school budget on current expenditure and only 2% on capital, compared with OECD averages of 92% and 8%, respectively (OECD, 2011b). Much of the recurrent budget is devoted to teachers' salaries. Mexico stands out amongst OECD countries, together with Portugal, as devoting over 90% of its education budget to staff salaries and other compensation (OECD, 2011b). Within that total, a high proportion (85% out of 94% in primary schools) is for teachers' salaries.<sup>4</sup> The remaining 6% of expenditure must cover all subcontracted, bought in and support services, notably maintenance. By comparison, on average across OECD countries, 20% of primary school current budgets are devoted to such bought in services, on top of the 8% for capital expenditure (OECD, 2011b).

This distinct picture arises in part because of deliberate policy choices made by Mexico in favour of teachers, both the number of teachers employed and the salaries paid to them, and in terms of constraints on overall public expenditure. The latter raises wider issues that are beyond the scope of this review concerning the challenges faced by Mexico in securing sufficient tax revenue to match its growing spending needs. The OECD addressed these in its 2011 economic survey of Mexico (OECD, 2011c), which observed that "at only 20%, Mexico's tax-to-GDP ratio is low by international standards". The report included recommendations that "Mexico should further pursue its significant efforts to increase tax revenues", including in particular at sub-national level raising real estate (property) taxes as an efficient means of securing revenue in support of local services".<sup>5</sup>

## 2.2. THE BETTER SCHOOLS PROGRAMME (BSP)

### 2.2.1 OBJECTIVES OF THE BSP

Between 2008 and 2012 – through the BSP and an emergency Sanitary Facilities Refurbishment programme conducted in 2009 involving 2 200 schools conducted in 2009 – INIFED is transferring up to MXN 1 million of federal funding per school for a total of 19 399 schools, affecting some 4.7 million students, at a total cost of approximately MXN 9 500 million (Table 2.1). To date, the BSP has addressed the highest priority refurbishment needs of 17 197 schools – or 19 399 schools, including schools participating in the Sanitary Facilities Refurbishment programme, exceeding the initial target of 16 000 schools assigned to INIFED for the BSP. Many of the schools in worst condition are small schools in rural areas.

The National Council for Education Development (CONAFE) and the Secretariat of Social Development (SEDESOL) are responsible for administering the repair and maintenance of the remaining schools targeted for repair as part of the Alliance for Educational Quality. In total, INIFED, SEDESOL and CONAFE will repair 37 495 schools as part of the Alliance for Educational Quality over the period 2008-12.

The primary objective of the BSP is to repair 16 000 of the 33 455 schools offering basic education in Mexico identified as being in the poorest condition. There are three secondary objectives of the BSP:

- Building on the long tradition of social participation in education in Mexico, to make the parents of each school, through the formation of an Organisation of Social Participation in Education (OPSE, *Organización de Participación Social en Educación*), engage as direct beneficiaries of each approved project;
- To generate jobs, and stimulate the local economy, as part of the response to the world-wide economic crisis; and
- In the interests of efficiency and to accelerate the benefit both to individual schools and to the economy, to secure delivery of each project in the shortest time possible (between 3 and 4 months).

The BSP does not address the rehabilitation of a building with structural problems. This would require greater investment in terms of finances and time, and there are other programmes in place that address this issue. Annex B4 presents the number of individual actions, total investment, jobs generated and students benefitting from the BSP in each state between 2008 and 2011.

### 2.2.2 THE ROLE OF INIFED

The National Institute of Physical Infrastructure for Education (INIFED) is a decentralised government agency funded by SEP. Its mission is to assess and certify the quality of education infrastructure in Mexico (INIFED, 2008). It was created in 2008 following a Senate initiative and superseded CAPFCE. INIFED provides regulatory guidance and advice on national disaster risk management and offers other consulting services.

INIFED is directly responsible for school buildings in the Federal District, but can only carry out work directly on school buildings in the states by mutual consent with the state authorities. INIFED exercises technical and administrative responsibility for work programmes in states, whenever federal resources are involved. It co-ordinates activities related to prevention and preparedness of physical infrastructure in the event of natural disasters, in addition to providing training, assessment and technical assistance. INIFED is also responsible for supporting the participation of civil society, private sector initiatives and the education community in improving and maintaining school properties.

INIFED's objective, set out in the General Law for Physical Infrastructure for Education (2008), is to ensure that the physical infrastructure of the country's schools are safe, secure, of high quality and designed to support implementation of the national education programme, which covers curriculum, teaching and learning. INIFED's mission is to increase access and participation of children and young people to education by providing inspiring and motivating physical learning environments.

### 2.2.3 ORIGINS OF THE BSP

The BSP was prompted by widespread concern over the condition of school buildings and the insufficient spending on school maintenance in Mexico. In response, in 2007 a questionnaire was sent by SEP's Unit of Planning and Evaluation of Education (UPEPE, *Unidad de Planeación y Evaluación de*



*Políticas Educativas*) to the principals of all elementary schools to obtain information about the condition of schools. The survey classified schools as poor, very poor or in the poorest condition. Accounting for those schools that had closed, were due to close or had otherwise benefitted from refurbishment funding, SEP identified 33 455 schools in urgent need of repair. There were particular concerns over structural safety (e.g. poor roofs) and sanitation, including toilets, provision for washing hands and drinking water.

In May 2008, the Mexican government and the National Union of Educational Workers (SNTE) jointly launched the Alliance for Educational Quality to promote innovative educational policies and to mobilise human, material and institutional resources to improve students' learning outcomes. One of the five priorities of the Alliance was to modernise schools, supported by improved school management and social participation. The BSP was formed under the framework of the Alliance for Educational Quality.

Under the BSP, INIFED is responsible for administering the repair of the 16 000 schools. The BSP is driven by INIFED with the support of parents' associations (OPSE), which help set the priorities for refurbishment in each school. Promoting greater community engagement in schools through OPSE has been major focus of the BSP.

The priorities of the BSP are health and sanitation, roofing, electrical installations, floors and ceilings, fenestration and window grills, painting, new construction (either classrooms or new sanitary blocks), corridors and walkways, hard play areas, and boundary walls/fences.

Year	No. of states (including Mexico DF)	No. of schools	Expenditure (million MXN)	No. of students	No. of short-term construction jobs generated
2008	18	2 189	949.94	648 530	54 725
2009	32	3 429	1 897.70	821 187	68 600
2009 *	32	2 202	499.35	600 431	55 050
2010	31	3 907	2 228.64	874 454	78 140
2011	32	4 122	2 212.00	851 125	90 024
2012	32	3 550	1 703.44	879 496	71 000
<b>Total</b>		<b>19 399</b>	<b>9 490.96</b>	<b>4 675 223</b>	<b>417 539</b>

Table 2.1 ■ Participation in the BSP, 2008-12

\* Schools participating in the Sanitary Facilities Refurbishment programme.

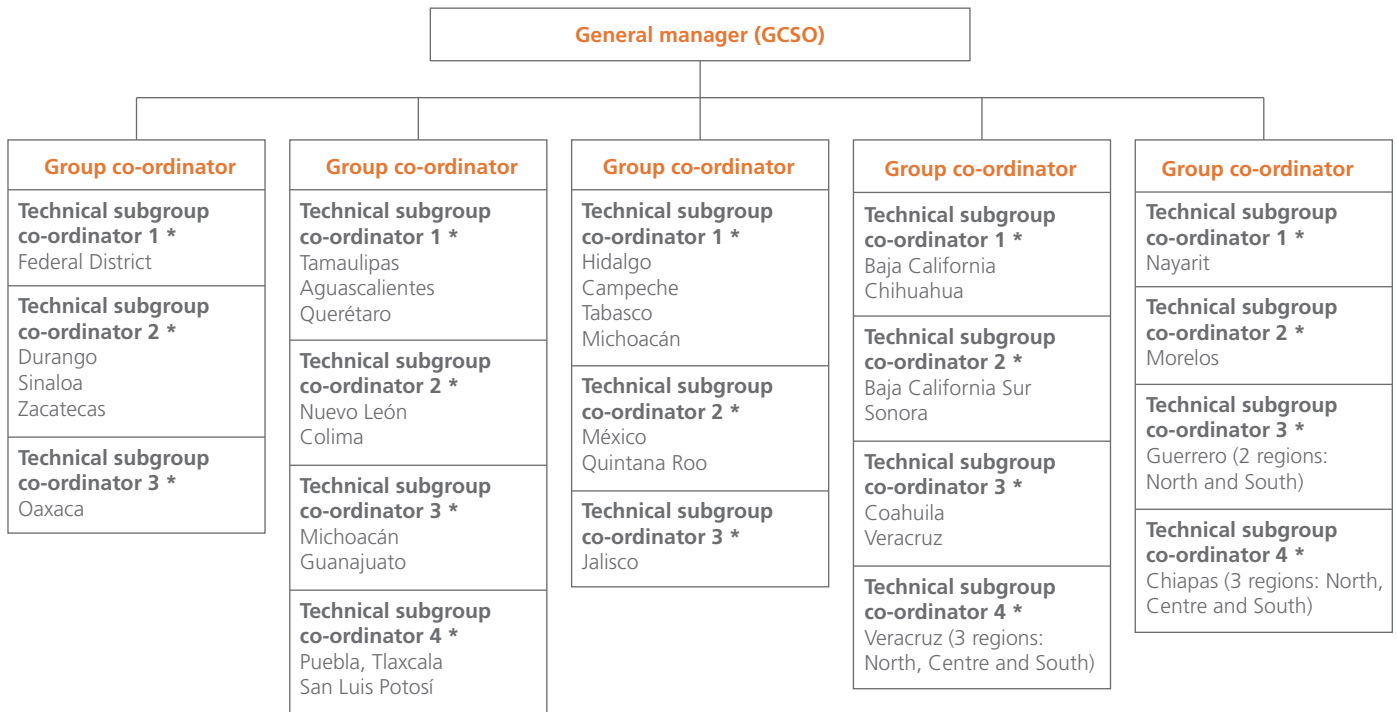
Source: INIFED Briefing to OECD Review Team.

## 2.3 THE PROCESS OF IMPLEMENTATION

### 2.3.1 OPERATIONAL STRUCTURE

INIFED established a decentralised operational structure to implement the BSP. The programme is administered from INIFED headquarters in Mexico City through the Building Management and Work Supervision unit (GCSO, *Gerencia de Construcción y Supervisión de Obra*) (Figure 2.2).

The GCSO is composed of five technical sub-groups, all of which are overseen by a General Manager. Each technical sub-group has its own co-ordinator and is composed of one or more states, with administrative staff based at INIFED headquarters. Each state has technical and social promoters, who are in the field. Boxes 2.1 to 2.4 provide detailed information on the participation of the three states in the BSP visited by the Review Team, Puebla, Yucatan and Oaxaca, and Mexico DF.



\* Each technical subgroup has a co-ordinator. Both the group and sub-group co-ordinators are located at INFED headquarters in Mexico City. Each state in each technical subgroup has a state co-ordinator(s) and technical and social promoters, who are all based in the field.

■ Figure 2.2 ■ Organisational structure of the Building Management and Work Supervision unit (GCSO) at INIFED

Students, Mexico DF © R. Almeida

Area	1495 km <sup>2</sup> (0.1% of national territory)
Population	8 851 080 (8% of the total population, 2010)
No. of delegations	16
No. of children at the age of basic schooling	1 937 538, of whom 88% are enrolled in school
No. of schools providing basic education and funding	8 478, of which 4 512 are Federal and 7 are state funded



Participation in the BSP, Mexico DF				
Year	No. of schools	No. of students enrolled	Cost (MXN)	No. of staff
2008	566	167 688	230 360 000	5 state co-ordinators 50 technical promoters 30 social promoters
2009*	59	16 088	16 630 000	-
2009	289	71 126	139 630 000	2 state co-ordinators 23 technical promoters 2 social promoters
2010	401	159 311	237 360 000	3 state co-ordinators 3 technical promoters 26 social promoters
2011	300	107 597	162 430 000	3 state co-ordinators 3 technical promoters 21 social promoters
2012	220	54 504	105 570 000	2 state co-ordinators 2 technical promoters 16 social promoters
<b>Total</b>	<b>1 844</b>	<b>576 314</b>	<b>891 980 000</b>	

\* These figures relate to the Sanitary Facilities Refurbishment programme.

Sources: [cuentame.inegi.org.mx](http://cuentame.inegi.org.mx); <http://www.inee.edu.mx>.

Box 2.1 Background data on the BSP in the Mexico Federal District (DF)

Area	33 902 km <sup>2</sup> (1.7% of national territory)
Population	5 779 829 (5% of the total population, 2010)
No. of municipalities	217
No. of children at the age of basic schooling	1 799 744 (31% of population), of whom 94% are enrolled in school
No. of schools providing basic education and funding	9 806, of which 1 012 are Federal and 8 794 are state funded
No. of staff in the BSP	1 state co-ordinator 1 social promoter 7 technical promoters



Year	No. of schools	No. of students enrolled	Cost (MXN)
2009*	109	14 407	234 073
2009	70	16 764	32 570 000
2010**	-	-	-
2011	102	22 993	53 440 000
2012	100	24 775	47 980 000
<b>Total</b>	<b>381</b>	<b>51 141</b>	<b>134 224 073</b>

\* These figures relate to the Sanitary Facilities Refurbishment programme.

\*\* Puebla did not participate in the BSP in 2010.

Source: INIFED, Puebla.

■ **Box 2.2** ■ Background data on the BSP in Puebla

Students, Yucatan © R. Almeida

Area	39 524 km <sup>2</sup> (2.0% of national territory)
Population	1 955 577 (2% of the total population, 2010)
No. of municipalities	106
No. of children at the age of basic schooling	328 004, of which 95.3% are enrolled in school
No. of schools providing basic education, by level of education	2 697, of which 995 are pre-schools, 1 237 primary and 505 secondary
No. of staff in the BSP	1 state co-ordinators 1 social promoter 4 technical promoters



Year	No. of schools	No. of students enrolled	Cost (MXN)
2008	56	16 591	20 200 000
2009*	26	7 090	4 120 000
2009	24	5 748	11 330 000
2010	50	11 057	25 620 000
2011	50	9 033	27 500 000
2012	50	12 387	23 990 000
<b>Total</b>	<b>200</b>	<b>61 906</b>	<b>112 760 000</b>

\* These figures relate to the Sanitary Facilities Refurbishment programme.

Sources: Official Diary of the state 23 December 2011; Instituto Nacional de Estadística y Geografía (INEGI).

■ **Box 2.3** ■ Background data on the BSP in Yucatan

Parent and student, Oaxaca © R. Almeida

<b>Area</b>	95 364 km <sup>2</sup> (4.8% of national territory)
<b>Population</b>	3 801 962 in 2012 (3% of the total population, 2010)
<b>No. of municipalities</b>	570
<b>No. of children at the age of basic schooling</b>	1 187 395, of whom 81.3% are enrolled in school
<b>No. of schools providing basic education and their funding</b>	12 326, of which 1 648 are Federal and 10 327 are state funded.
<b>No. of staff in the BSP</b>	3 state co-ordinators 3 social promoters 21 technical promoters



Year	No. of schools	No. of students enrolled	Cost (MXN)
2009*	93	25 359	21 560 000
2009	194	46 460	118 740 000
2010	103	25 946	59 990 000
2011	314	44 388	168 830 000
2012	1 004	74 324	143 950 000
<b>Total</b>	<b>1 708</b>	<b>216 477</b>	<b>513 070 000</b>

\* These figures relate to the Sanitary Facilities Refurbishment programme.

Sources: INIFED; Web page of the state government; INEGI.

■ **Box 2.4** ■ Background data on the BSP in Oaxaca

### 2.3.2 FUNCTIONS OF THE BSP STAFF AT STATE LEVEL

At the state level, the BSP has either one or two state co-ordinators, depending on the size and geographical complexity of the state, social promoters and technical promoters (Figure 2.2).

- The *State Co-ordinator* plans and distributes interventions for improvement; assigns schools to the social and technical promoters; co-ordinates the technical promoters who advise the OPSEs; reviews technical projects; supports and co-ordinates the lottery or *sortition* process; co-ordinates the contracting process with the enterprises; and co-ordinates, monitors and verifies the site(s) until the conclusion of the project.
- The *Social Promoter* participates in meetings with the OPSE and prepares the Agreement Act; assists the OPSE to prepare the subsidy request; maintains clear communication between INIFED, OPSE, authorities and contractors; and provides administrative support for the BSP.
- The *Technical Promoter* presents the BSP to the school; prepares the Technical Project and the Work sheet; and provides support to the OPSE for rehabilitation works, before, during and after completion.

The Review Team observed clear and effective communication between INIFED's headquarters and the state co-ordinators during its visit to the three states and the Federal District.

### 2.3.3 IMPLEMENTATION PROCEDURE

The selection of schools to participate in the BSP follows a clearly defined procedure. Following the initial identification by the Secretariat of Public Education (SEP) of schools most in need of repair, there have been five rounds, one each year from 2008-12. In each round, schools are identified, contractors selected and projects completed. After INIFED evaluates the schools' eligibility to participate in the BSP based on the information provided by SEP, it gives the names of schools to the appropriate INIFED state co-ordinator, who visits the school with the technical promoter to inform the school that it has been considered for the programme.

### 2.3.4 DIAGNOSIS OF THE PHYSICAL CONDITION OF SCHOOLS

The technical promoter carries out a detailed diagnosis and survey of the designated school using a customised tool, the Technical Information Card (CIT, *Cédula de Información Técnica*). The CIT is a form that sets out the technical condition and needs of the school. It comprises four modules, which can be complemented with photographs and plans of the school. The completed CIT is signed by the state co-ordinator, the technical promoter and the school principal, in addition to the member of the educational community participating in the diagnosis (Figure 2.3).

Finally, INIFED identifies nine key areas for improvement action, to be implemented in order of priority in a selected BSP school (Figure 2.4).

### Module 1. Basic information

- **General data.** Name of the school, level of education, number of shifts, postal address, code, GPS location, etc.
- **Names** of the individuals who collected the information.
- **Site.** Proximity to a disaster prone area, size, type of soil, topography, category of land, etc.
- **Municipal services.** Access, public transportation, water supply, water disposal, electric energy, telephone, etc.
- **Analysis of the existing buildings.** Number of buildings, construction type, number of floors, number and type of spaces, and surfaces, etc.
- **Security.** External lighting, outdoor spaces lighting, civil protection (internal civil protection plan, drills, security areas, fire extinguishers, alert systems, connection to the seismic alert system), etc.
- **Plans per building.** Topographic survey, structural and architectural drawings, soil mechanics, electrical installations, sanitary installations, document of legal property identification, etc.

### Module 2. Water, sanitation and hygiene

- **Municipal water distribution.**
- **Existence of a well.**
- **Water consumption, quality, pressure and storage.**
- **Sanitary drainage,** such as connection to the municipal drainage.
- **No. and condition of water fountains.**
- **Sanitary spaces** for boys and girls, for teachers, for handicapped, etc.
- **General summary of sanitary equipment,** such as toilets, washbasins, urinals, showers, etc.

### Module 3. External work

- **Parking spaces.**
- **Perimeter protection:** fence, wire mesh, access door.
- **Outdoor and recreation areas,** such as civic square, flag pole, football court, basketball, volleyball, swimming pool, green areas.
- **Annexes (pre-school and primary),** such as playgrounds, sandboxes, etc.
- **Accessibility.** Ramps and walkways.
- **Special roofs.**
- **Electrical installations,** such as cables, illumination, water pumps.

### Module 4. Structure of the buildings (building A, B, C, D, etc.)

- **Type and year of construction.**
- **Typology of structures.** Regional, prefabricated, structural geometry, building materials, number of stories, surfaces, etc.
- **Type and no. of spaces per building.** Educational spaces (classrooms, multipurpose, laboratories, workshops, etc.), administrative spaces, other spaces (cooperative, cafeteria, kitchen, waiting room, medical service, gymnasium, store, dining hall, teachers' house, dormitories for students, etc.), sanitary modules.
- **Damage in each building.** Around the building, structural, non-structural, weakness of materials, etc.

■ **Figure 2.3** ■ **Modules in the Technical Information Card**



- Sanitary services/plumbing.
- Roofing and waterproofing.
- Electrical installations/Solar lighting system.
- Floors, walls and ceilings.
- Lock keys, glasses and protections (fenestration).
- Painting.
- New annexes.
- Walkways, courts and hard play.
- Fences and boundary walls.

■ **Figure 2.4** ■ Key areas for consideration in an “improvement action”

### 2.3.5 SETTING UP THE ORGANISATION OF SOCIAL PARTICIPATION IN EDUCATION

Involving the community in the management and decision-making process is the cornerstone of the BSP. In order to ensure community engagement in and benefit from the process, it was important to create a mechanism by which INIFED could directly fund the school’s refurbishment. An OPSE was thus set up for each BSP project to act as the legal client on behalf of the school. Under the BSP, the work can only take place if there is an OPSE. Each OPSE is composed mostly of parents, who are elected by the parent community as a whole. The OPSE cannot appoint school directors, teaching and administrative staff or public servants as representatives. All the members of the OPSE must be identified with their Federal Electoral Institute (IFE) credentials<sup>6</sup>.

The OPSE is first consulted after the completion of the CIT survey. The technical co-ordinator then organises a meeting with the OPSE and the school community to discuss the objectives of the BSP. The OPSE signs the Agreement Act, which is a legally binding document defining the roles and responsibilities of the OPSE, and the work programme. Throughout the project, the OPSE instructs INIFED to make payments directly to contractors via bank transfer.

The OPSE’s main duties are to:

- Comment on, take decisions and supervise the functioning, operation and maintenance of the school project;
- Participate in all the stages of the BSP;
- Contribute to the transparency and presentation of financial accounts;
- Verify that the building materials and improvement actions are of good quality;
- Monitor the timely completion of work;
- Verify that the work disrupts educational activities as little as possible; and
- Participate in and encourage others to care for and preserve the facilities.

### 2.3.6 FROM THE TECHNICAL PROJECT TO THE AGREEMENT ACT

Based on the findings of the CIT survey, INIFED prepares the Technical Project (PROT, *Proyecto Técnico*) (Figure 2.5), which contains the school's name, address and a general description of the project; a description of each element for improvement, with technical specifications for each item (i.e. unit, quantity and cost); and a site layout plan. A Work sheet (*Hoja de Trabajo*) is included in the PROT, which describes each element of the work in detail (e.g. windows, roof, doors). The PROT is signed by the OPSE, the state co-ordinator and the technical promoter. It is used to determine the level of subsidy.

The PROT can be prepared relatively rapidly because it draws from the “Component Reference Catalogue”, which was specifically developed for the BSP. The catalogue provides detailed specifications by component and unit price for each type of work (e.g. brick wall, or timber joinery for windows). There are similar catalogues for different programmes, for example SEMS (Under-Secretary for Higher Medium Education) and Technological Institutes (Under-Secretary of Higher Education). If the school requires a new type of work, such as a classroom or sanitary block, INIFED sends the corresponding architectural drawings.

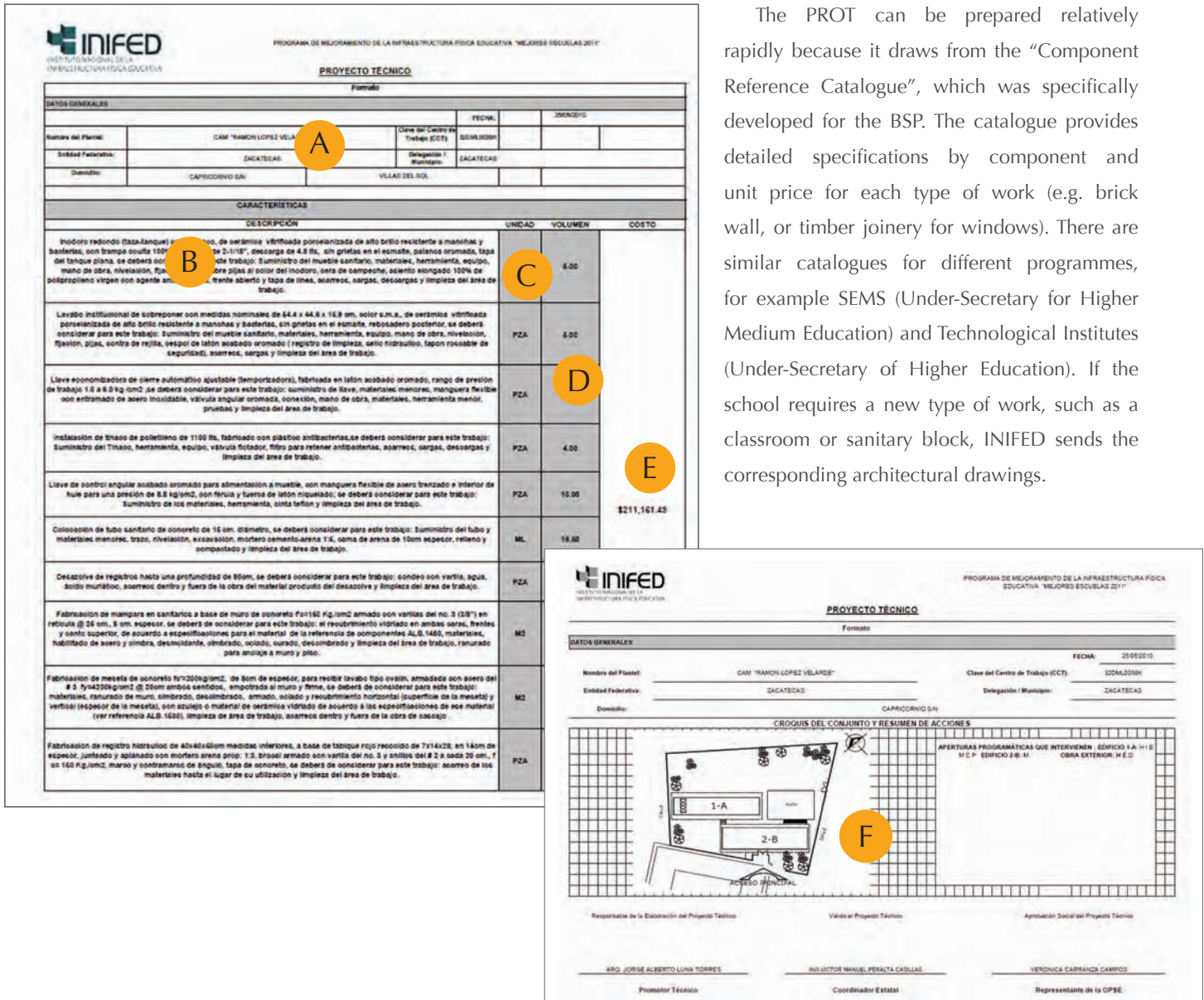



Figure 2.5 Documentation for the Technical Project\*

\* The PROT contains the school's name, address and a general description (A); a description of each element, e.g. sanitary services/plumbing, with technical specifications for each item (B); unit (C); quantity (D) and cost (E); and a site layout plan (F) indicating the size and nature of work to be conducted. Source: INIFED.

Once the PROT is approved by the OPSE, the Technical Promoter prepares the Technical Approval for the state co-ordinator’s approval, and it is sent to INIFED for final authorisation. The Technical Approval gives the total cost of the “improvement action” in the school, with a breakdown of the costs of each element (Figure 2.6). The group co-ordinator, the state co-ordinator and the technical promoter sign the document.

Following the Technical Approval, the OPSE signs the Agreement Act, formalised with INIFED, thereby accepting the terms and conditions of the BSP. The OPSE addresses a letter to the President of the Republic to request the subsidy (Figure 2.7). All the corresponding papers are sent to INIFED’s Finance Management department.



**INIFED**  
INSTITUTO NACIONAL DE LA  
INFRAESTRUCTURA FÍSICA EDUCATIVA

PROGRAMA DE MEJORAMIENTO DE LA  
INFRAESTRUCTURA FÍSICA EDUCATIVA  
"MEJORES ESCUELAS 2011"

---

**DATOS GENERALES**

<b>Nombre del Plantel:</b>	CAM "RAMON LOPEZ VELARDE"	<b>Clave del Centro de Trabajo (CCT):</b>	32DML0038K
<b>Entidad Federativa:</b>	ZACATECAS	<b>Delegación / Municipio:</b>	ZACATECAS
<b>Domicilio:</b>	CAPRICORNIO S/N		

**FECHA:** 25/05/2010

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**APROBACIÓN TÉCNICA**

Clave	Descripción del Concepto de la Acción	Subtotal
H	INSTALACIONES HIDROSANITARIAS	\$215,309.80
I	IMPERMEABILIZACION / TECHUMBRE	\$129,168.15
M	PISOS, MUROS Y PLAFONES	\$65,708.73
E	INSTALACIONES ELECTRICAS	\$38,581.60
D	ANDADORES, PLAZAS Y CANCHAS DEPORTIVAS	\$37,381.99
C	CANCELERIA, VIDRIOS Y PROTECCIONES	\$20,087.18
P	PINTURA	\$4,032.21
		<b>Subtotal</b> \$ 510,269.96
		<b>I.V.A. 16%</b> \$ 81,643.19
		<b>TOTAL</b> \$ 591,913.15
		<b>TOTAL REDONDEO</b> \$ 591,913.00

Responsable de la Elaboración del Proyecto Técnico

ARQ. JORGE ALBERTO LUNA TORRES

Promotor Técnico

Valido el Proyecto Técnico


ING. VICTOR MANUEL PERALTA CASILLAS

Coordinador Estatal

Aprobación Técnica

Figure 2.6 Example of a Technical Approval document.

# SOLICITUD DE SUBSIDIO



**Solicitud de Subsidio**

<<Municipio y Entidad Federativa>>, a <<día y mes>> de 2011

Lic. Felipe Calderón Hinojosa  
 Presidente de los Estados Unidos Mexicanos  
 Presente

Señor Presidente, somos miembros de una comunidad educativa formalmente constituida en la Escuela <<nombre del Plantel Escolar>>, con Clave de Centro de Trabajo << citar el C. C. T. >>, Ubicada en << domicilio completo y correcto >>; que representamos a una Organización de Participación Social en la Educación (OPSE).

Debido a que la Escuela presenta serios problemas de deterioro que dificultan el aprendizaje de nuestros hijos, resulta necesario rehabilitarla para que los niños y jóvenes de nuestra comunidad, tomen sus clases en un espacio digno, seguro y funcional, que les permita convertirse en mejores ciudadanos. Es por ello que solicitamos su apoyo para mejorar las condiciones de las instalaciones de la Escuela mencionada.

ATENTAMENTE

<<firma>>  
 C. <<nombre completo y correcto >>  
 Representante <<Titular o Suplente>> de la OPSE

SEP

INSTITUTO NACIONAL DE LA INFRAESTRUCTURA FÍSICA EDUCATIVA

Figure 2.7 Example of model letter, which can be adapted to each context

### 2.3.7 FROM SORTITION TO IMPLEMENTATION

Following the formalisation of the Agreement Act, INIFED issues a public invitation to local and non-local small- and medium-sized building contractors to apply to appear on a register of valid companies to undertake BSP projects. As part of its due diligence, INIFED checks the legal status of companies, registration, solvency, tax payments, technical and administrative capacity, experience and competence, and the company's equipment. Each company must present legal, technical and financial/administrative documentation in support of the application. Companies must have at least MXN 1.5 million in cash as the projects must be carried out quickly (in 90 calendar days), and the company may have to pay for materials or employees in advance of payment by INIFED.

Companies satisfying the requirements established by INIFED can participate in the *sortition* process, which is a type of lottery in which packages of schools are randomly assigned to building companies. The panel that oversees this process is composed of:

- The programme manager or representative from the building and construction management team;
- A representative of the internal auditor (OIC), who ensures that the process runs according to procedure;
- A representative from the OPSE, usually the President; and
- The INIFED state co-ordinator.

Projects are grouped in packages of three to five schools with a maximum construction value of MXN 2.5 million per package. Generally the packages are arranged so that schools are located nearby, which facilitates supervision and transportation of materials.

The aim of the lottery process is to ensure the fair and transparent allocation of each school package to a contractor (Box 2.5). Ballot papers are drawn from two transparent drums: one drum contains the names of the contractors and the other contains the school packages. Once selected, a contractor has five days to sign the contract for a package. Companies are not permitted to undertake work on more than two packages in any round. To ensure that the local economy benefits, from 2010 a ratio of 70:30 was required for local to non-local companies. If the contractor advises INIFED that it cannot complete the work, another contractor must be appointed. Instead of holding a new lottery, reserve cards are also put into the contractor's drum. There could well be three times as many ballot papers for contractors as there are for school packages and reserve cards. To ensure transparency of the process related to unintended exclusion of contractors from the *sortition* process, every contractor card is drawn and those not selected in the initial or reserve rounds are marked "non-beneficiary" and placed back in the drum with the packages. This means that every contractor is assigned either a package, a reserve or a card marked "non-beneficiary". At the end of the process, the result is recorded in a register.



■ **Figure 2.8** ■ Sortition event at INIFED, 21 March 2012\*

\*Photo left: Officials conducting the sortition procedure (© Oscar Arriaga); photo middle: a package composed of 3 to 5 schools (© R. Almeida); and photo right: companies participating in the sortition process (© R. Almeida).

The performance of contractors having taken part in previous rounds of the BSP and applying to take part in another *sortition* is also taken into account. The evaluation of the contractor, which is undertaken by the Technical Promotor, considers for example, timeliness of project completion, working relationships with the school and OPSE, and quality of the work completed. INIFED's internal auditor (OIC) verifies this evaluation. In 2011, OIC undertook separate evaluations of at least one site for each contractor. Contractors are rated as:

- "Excellent". These companies will have the opportunity to take part in another three *sortition*.
- "Good". These companies can participate in another three *sortition*.
- "Satisfactory". These companies will get one last opportunity.
- "Poor". These companies will not be allowed to take part in future *sortition*.

**Organisation.** School packages are organised alphabetically, according to the school's locality and reference number. For example, Package 1 contained schools in localities Ajalpan and San José Miahuatlan; Package 2 contained schools in localities Atlixco, Atzitzihuacan and Izucar de Matamoros.

**No. of school packages.** 25, with 4 schools in each package, making up 100 schools (or "Actions" using INIFED's terminology).

**No. of contractors.** There are 100 contractor's cards. 25 of these cards will be selected in the sortition process for each school package, plus 10 reserves, which are numbered Reserve 1...10. The reserve is used if the successful contractor resigns. A contractor has 5 working days to confirm its resignation. The 65 remaining cards are marked "non-beneficiary".

■ **Box 2.5** ■ An example of the sortition process carried out in Puebla 2011

Source: INIFED

The evaluation of contractors has proven beneficial for BSP for three reasons. First, evaluations of contractors, which take into account the views of the OPSE, promoters and INIFED Technical Co-ordinators, provided valuable and rapid feedback to INIFED regarding the BSP. Second, in 2012, INIFED estimates that the project evaluation has saved a month of time that would have otherwise been needed to evaluate the companies through a public call for tender. Third, the fact that contractors participating in the BSP had been evaluated assisted INIFED to complete the work according to the BSP's tight deadlines. All BSP projects were to be completed by the end of June 2012, before the election in July 2012, putting significant pressure on the teams, the OPSE and contractors. For example, the *sortition* took place in Puebla on 2 April 2012 and in the Mexico DF on 31 March 2012. Thus, contracts for BSP projects were prepared so that the works would be completed by 30 June 2012, but that administration of the schools would be handed over to the OPSE the day after the election, thus avoiding potential politically-motivated incidences in the schools, which also serve as voting stations.

### 2.3.8 CONTRACTUAL ARRANGEMENTS

The construction contracts follow a typical bi-partite model, and the procedures are similar to those found in contracts for works of similar scale in other countries. In this case, the contract is signed between the OPSE and the contractor. A contractor could well find himself signing up to ten contracts in one round, if it has been awarded two packages.

The contractor must also sign a promissory note equal to the value of the construction work, which would oblige the contractor to pay the OPSE should it (the contractor) fail to carry out or complete the work. In other words the contractor is acting as a guarantor for the money that it will be paid. The contractor must also sign a bond equal to 50% of the contract value valid for 12 months after the completion of the contract. The contract covers liabilities and performance under the contract, and latent (hidden) defects that may emerge before the end of that period. Some elements of the project may have separate manufacturer warranties; for example a roof may have an 8-year warranty. The contracts include penalty clauses for delays and termination if appropriate.

The payment procedure for the contractor is as follows:

- Upon signature of the contract, 50% of the total contract amount is paid by INIFED upon instruction from the OPSE;
- A second payment of 25% is made once 75% of the work has been completed and validated by the Technical Promoter; and
- The remainder is paid on completion of the work, which means that the Technical Report must be presented to the OPSE by the Technical Promoter and approved by the OPSE in a signed deed of acceptance.

The completed work is audited by the OIC and the Superior Audit of the Federation. The Chief of Group conducts site visits. In addition, any complaints by the OPSE are followed up. These evaluations seek to clarify the severity and cause of the problem, for example, whether it is due to poor workmanship or quality of materials, or inappropriate use.

## NOTES

1. According to the 2010 census, the population of Mexico was 112 336 538.
2. Other than from 1910 to 1920, when populations across the world declined.
3. According to the National Commission for the Development of Indigenous Peoples (CDI), there are 62 recognised indigenous languages in Mexico.
4. This is partly explained by the federal government's provision of text books, the culture of voluntary cleaning undertaken by the local community, and modest expenditure on energy bills.
5. The federal government had since presented a budget to the Congress allowing states to levy an additional consumption tax of up to 5% on top of the federal VAT, currently levied at a rate of 16%, except for bordering regions (*i.e.* the United States border, Belize and Guatemala), where the rate is 11%. This proposal was rejected by Congress on 14 November 2011.
6. The Federal Electoral Institute credentials – Instituto Federal Electoral (IFE) – are a common form of identity verification in Mexico.



### 3. ANALYSIS OF THE BETTER SCHOOLS PROGRAMME (BSP)



*This chapter presents an analysis of the four aspects addressed by the Review Team regarding the Better Schools Programme: its organisation and governance, funding and cost-effectiveness, issues of quality, and social participation. The broader economic impact of the BSP is also discussed.*

## 3. ANALYSIS OF THE BETTER SCHOOLS PROGRAMME (BSP)

### 3.1 ORGANISATION AND GOVERNANCE

#### 3.1.1 ORGANISATION

The organisation and control of the BSP, a 100% federally funded programme, is the responsibility of the National Institute of Physical Infrastructure for Education (INIFED, *Instituto Nacional de la Infraestructura Física Educativa*). As an independent federally-funded agency responsible for regulating and advising on school building projects in Mexico – and as a repository of information for school facilities policy and practice in the country – INIFED is well placed to administer the BSP. While the BSP is initiated by and the responsibility of the federal government, it is directed at schools that are administered by the states. INIFED thus employs a strong core staff in Mexico City and a network of technical staff on short-term contracts in each state to implement the BSP. All states participating in the BSP were required to sign an agreement with the federal government.<sup>1</sup> States were consulted by INIFED through the Secretariat of Public Education's (SEP, *Secretaría de Educación Pública*) network of ambassadors (OSFAE, *Oficinas de Servicios Federales de Apoyo a la Educación*), which was established to co-ordinate the delivery of basic education in each state.

The selection of projects and contractors through a lottery or *sortition* process is a particularly innovative aspect of the BSP's organisation (see 2.3.7). The prequalification process, whereby the quality and efficiency of contractors is assessed, ranked and recorded, is consistent with construction industry practice. Such a process is an efficient way of ensuring that government work is allocated to contractors who have demonstrated ability to manage and deliver projects on time, within budget and to the specified standards.

#### 3.1.2 GOVERNANCE

The governance model of the BSP is based on INIFED controlling payment to contractors and overseeing the implementation of the BSP, and the Organisation of Social Participation in Education (OPSE, *Organización de Participación Social en Educación*), a parents' group, serving as the legal client (see 2.3.5). The OPSE is another innovative aspect of the BSP – and one that builds on Mexico's tradition of community participation<sup>2</sup>.

Each school participating in the BSP is required to create an OPSE, which is composed mainly of parents. According to the regulations, other members of the school community such as teachers, public officials and school administrators are excluded from participating in the OPSE. Elected by the parent body at large, the OPSE is composed of a president (chair), secretary, and usually one representative per class. The OPSE

articulates parents' views on the repairs needed at the school, within the resources available. It acts as the legal client and supervisor for each approved building contract. But the OPSE does not receive and is not accountable for the contract payments, which are paid directly from INIFED to the approved contractor by bank transfer. Work is only complete once the OPSE, as well as the INIFED representative, signs the deed of acceptance.

The Review Team concluded that this model of governance was most effective when there is a close relationship between the OPSE, especially the OPSE president, and the school principal. In fact, principals in some schools visited by the Review Team indicated a willingness to play a greater role in managing the school, especially the school budget.

In principle, a more decentralised governance model based on local initiatives and negotiation could have been used. That would, however, have been both risky and counter-cultural: while there is a long tradition of local community participation in Mexico, there is no precedent of delegated budgets for schools or of independent governance of publicly funded schools. So, other than the states, there was no body corporate with which the federal government could contract to deliver the BSP.

While the BSP is an important federal initiative it is not the first time parents have played such a role in Mexico. In 2001, the federal government created the Programme of Quality Schools (PEC, *Programme Escuelas de Calidad*) to promote community participation in schools (Box 3.1). There are examples of similar initiatives in other countries where parent participation in local schools is strongly encouraged as a means of improving the commitment, involvement and engagement of communities in local projects. In Australia, for example, the Federal Government's "National School Pride" programme is a minor works programme to improve the condition of schools. It is a stimulus to the local economy and to local employment. Schools, councils and parents play a key role in the decision making process. Annex B5 compares Australia's National School Pride Programme and Mexico's BSP.

In 2001, the federal government created the Programme of Quality Schools (PEC, *Programme Escuelas de Calidad*) to promote community participation in schools. Stakeholders from the school community, including principals, teachers, parents and community members, formed the School Council of Social Participation. Participation by the schools in the PEC was voluntary. PEC was seen as contributing to school autonomy by allowing local stakeholders to diagnose the specific shortcomings of a school and to design a School Transformation Strategic Plan (PETE, *Plan Estratégico de Transformación Escolar*). The plans were then submitted to state officials, and the accepted plans received resources for up to 5 years, renewable each year, based on satisfactory performance. The federal government funded 75% of the total cost of the PEC. States funded the remaining 25%. Schools were invited to raise further resources from the school community, including non-governmental organisations and the private sector. PEC regulations also required the school community to be involved in implementing the plan.

Parents are custodians of the funds and must verify the purchases and contracts made using PEC resources. In most states, the demand for PEC funding exceeds the availability of resources. A state selects the schools following federal government rules, which require a competitive review of the PETEs and prioritises disadvantaged schools, particularly indigenous schools.

**Box 3.1** ■ Programme of Quality Schools in Mexico

Source: World Bank, Mexico Country Brief.

## 3.2 FUNDING AND COST EFFECTIVENESS

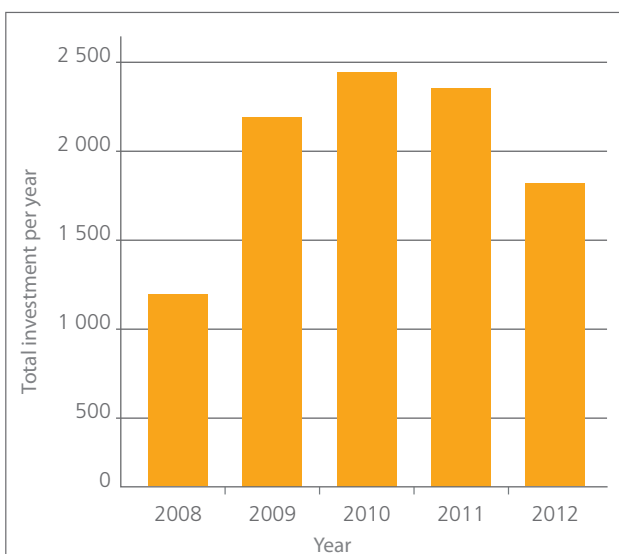
### 3.2.1 EFFICIENCY

Since the BSP was launched in 2008, the federal government will by the end of 2012 have invested nearly MXN 9.5 billion in 19 399 schools offering basic education in Mexico (Figure 3.1).<sup>3</sup>

At its peak, the BSP has accounted for less than 0.5% of the annual federal budget for education in Mexico. In 2012, the final year of the programme, the BSP accounted for only 0.3% of the annual budget (Figure 3.2).

The average project cost is MXN 490 000, which is consistent with INIFED's initial target for the refurbishment of at least 16 000 priority schools. Indeed, the Review Team agreed that considering the modest average project cost, these projects had yielded significant returns to schools and communities. Although the Review Team did not audit projects, based on its analysis of a sample of Technical Information Cards (CIT, see Figure 2.3) and the high satisfaction levels regarding priorities met by the BSP reported by the OPSE representatives during interviews, the Review Team concluded that funds allocated were sufficient to address the priority deficiencies in the 19 399 schools.

The BSP was centrally directed and tightly run by INIFED. The use of standard specifications and materials permitted economies of scale and ensured that a given sum of money delivered the expected product. The Review Team found that financial and other contractual difficulties were only encountered in a small proportion of projects under the BSP. In addition, detailed procedures had been put in place regarding the administration of the BSP, from initial conception to the realisation of each project.



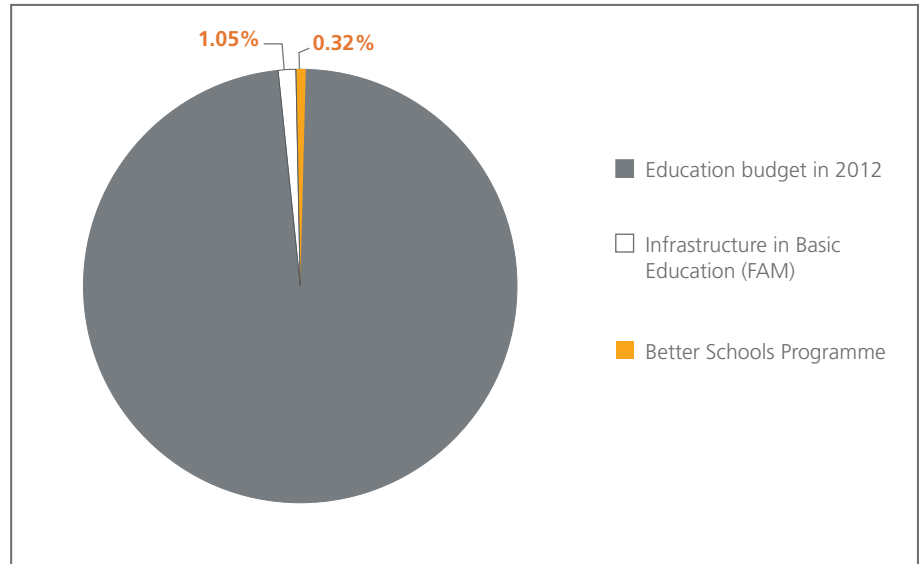
■ **Figure 3.1** ■ Total investment per year in the Better Schools Programme\* (constant 2011 MXN million)

\* Figure for 2009 includes the Sanitary Facilities Refurbishment Programme. Source: INIFED, 2012.

The contracting process was based on grouping projects in packages of three to five schools, with a maximum contract value per package of MXN 2.5 million (see 2.3.7). This contract value was established to encourage applications from small- and medium sized contractors. The contracts did not permit variations in the contractual sum, i.e. there was no mechanism allowing for price adjustments during the project for unforeseen work. As the contractor had already been presented with the priced specification – in other words the contractor was not permitted to submit a competitive price – a margin was created for unforeseen work per unit cost for individual items of work, for example additional work required for uncovering part of the fabric during construction. However, the contractor had to accept and manage the risk that there might be latent defects. For example, in one school visited by the Review Team, the roof of a school building required

substantial additional work, and the contractor did carry out the work within the margin established as part of the overall budget. The Review Team found that this process motivated contractors because contractors understood that there would be finances available in the event of unexpected work. While the Review Team did not review the cost of the projects, it agreed that the sums involved did not appear to yield excessive profits for contractors.

The administrative overhead costs for programmes of minor works such as the BSP can be quite high because of the amount of work involved, and therefore cost, of appraisal, approval, evaluation, monitoring, financial control and audit. Auditing ensures the proper use of public funds in each project, even those of relatively small scale. In this respect, the Review Team agreed that the procedures adopted by INIFED for administrative overhead costs were fit for purpose. These processes were supported in part by the use of established standard specifications and materials, and also for example through volunteer work by parents in the OPSE.



■ **Figure 3.2** ■ Budget for BSP as a proportion of the total federal education budget in 2012  
Source: SEP, 2012.

### 3.2.2 COST EFFECTIVENESS

INIFED deployed resources effectively in line with the strict regulations and financial constraints governing the BSP's implementation. These define the procedures for identifying and prioritising schools, awarding contracts, construction specifications, materials to be used, resource allocation and schedules of work. Therefore, the Review Team concluded that the resources available for the BSP were distributed with due regard to cost effectiveness, with the following caveats.

- Within the agreed scope and budget of the BSP, it has only been able to address a proportion of schools in urgent need of repair in Mexico; and
- For many of the 19 399 schools benefitting from the BSP, funds were not intended to be used to refurbish and equip the school completely.

### 3.3 QUALITY

#### 3.3.1 SCHOOL BUILDINGS AND EDUCATION QUALITY

The quality of the built environment can make an important contribution to improving the quality of education. The school's built environment needs to complement and support the educational programme, the curriculum and pedagogies used, as well as meet the specific needs of teachers and students. Schools that are well designed, carefully maintained and appropriately furnished and equipped can provide teachers and students with better opportunities to pursue learning effectively and enjoyably. If the school's built environment is inadequate, unsafe or not able to meet the needs of the curriculum or pedagogy, the teachers' performance and students' learning will be adversely affected. School buildings can also play a symbolic role in communities in that a well designed and well maintained school signals to the community that education is valued and of benefit to the community. Importantly, school buildings can provide a safe shelter in the event of emergencies and simply provide a place where students, teachers, parents and the community enjoy spending their time (INIFED, 2008).

While individual states have principal responsibility for the establishment, ongoing maintenance and improvement of school sites, INIFED through the BSP plays an important role in stimulating community interest in the quality of their schools. INIFED ensures the quality of the built environment through its building audit process, its specifications for the standard of work to be completed, and the process for selecting appropriately prequalified contractors and identifying appropriate work to be carried out by volunteers. Parents contribute to monitoring, reporting and requesting interventions for school improvement, for example by ensuring that schools buildings and grounds are well maintained and that the buildings are supporting students' learning, recreational activities and safety and hygiene requirements; and by checking security, from external fences to the use of the school as a safe haven centres. State and municipal programmes, school councils, parents and associated community programmes contribute to ongoing maintenance and further improvements.

#### 3.3.2 PROVIDING FUNCTIONAL, QUALITY ENVIRONMENTS

During visits to schools, the Review Team observed examples ranging from basic repairs, which make the buildings and grounds functional and safe, to more significant improvements in which the quality of the built environment had been improved and enhanced by the use of colour, didactic graphics and the redevelopment of spaces to provide for multiple uses. The quality of work was governed by standards developed by INIFED. Some interviewees reported to the Review Team that these standards had been constraining in specific contexts. For example, it is important to consider the quality of materials – durability, and ease of maintenance and cleaning – in regions with tropical climates such as Yucatan. The Review Team understood that the specifications are now regularly reviewed, with consideration of requirements of specific regions.

Even so, these schools appeared to fall well below the required standard for a modern educational environment. This reflects the extent of the task facing programmes like the BSP which, while tackling schools' most urgent repair needs, cannot address the fundamental need to modernise spaces to meet the needs of 21st century education. Indeed, in many countries, funding constraints can pose challenges for setting policies related to maintaining and constructing school buildings, for example, balancing the need to meet a building code in one area such as accessibility, against other basic needs such as providing drinking water. The Review Team therefore noted further opportunities for improvements. While the current priorities of the BSP may preclude some of these actions such as the redevelopment of spaces, the Review Team agreed that raising the quality of the learning environment would require further investment.

In order to provide truly functional environments that meet the needs of 21st century education, a more holistic approach is needed. A master plan would serve to tackle not only isolated worst areas of deterioration, but all elements of the environment, notably:

- Structural soundness of the buildings;
- Ventilation and lighting;
- Painting;
- Sanitation;
- Drinkable water;
- Equipment, including computers, smart boards, reading material, toys and materials; and
- Furniture and fittings.

The BSP has sought to improve school infrastructure in need of urgent repair. However, in some schools, parents requested additional resources from INIFED to address basic quality-related concerns relating to health, safety and security, thus placing an unforeseen financial burden on the BSP. Future projects should thus look to providing funding for appropriate furniture and equipment using public finances, community or voluntary donations.

The initial design, the quality of workmanship, the building materials used and the ongoing preventative maintenance and the pride of ownership by the users (students, teachers, parents) and local community all contribute to the quality of the school and its ability to provide education services. Yet in terms of the broader aspirations of the Alliance for the Quality of Education, the general appearance of most schools is a concern because they are neither attractive nor welcoming. For example, to address safety and security concerns, classrooms in most schools have bars across the windows. In addition, some classrooms were unpleasant spaces for children to learn due to poor ventilation, lack of natural light and poor maintenance of the building.

Two schools visited by the Review Team, which were refurbished as part of the BSP programme, provided good examples of how the initial design of the school has performed well over time.



**Figure 3.3** ■ Courtyard, Escuela Francisco J Mujica, Oaxaca de Juarez  
© Rodolfo Almeida



**Figure 3.4** ■ Roof waterproofing membrane, Escuela Mexico Olimpico, Jardin Balbuena, Venustiano Carranza, Mexico D.F  
© Alastair Blyth

- At *Escuela Francisco J Mujica*, a primary school in Oaxaca de Juarez (Figure 3.3), work was undertaken to replace some of the sanitary equipment and electrical installations, and installing a water treatment plant. Improvements and ongoing maintenance are being carried out by the community. The school principal effectively managed the project by working in collaboration with the OPSE to ensure that the school is safe, secure, structurally sound and also provides an attractive environment for the children and the local community.

- At *Escuela Mexico Olimpico*, a pre-school in Jardin Balbuena, Venustiano Carranza, Mexico DF (Figure 3.4), the roof waterproofing membrane and insulation were replaced, some of the broken paving in the courtyards and play areas was repaired, and a new water tank was installed. The Review Team observed that both internal and external classroom environments were used effectively. OPSE seemed very motivated to maintain the building both before and after the improvement work.

### 3.3.3 LINKING PROGRAMMES FOR EDUCATION QUALITY AND THE BSP

Improving the quality of schools has been on the agenda in Mexico for several years, for example the Programme of Quality Schools (Box 3.1) in 2001 and Alliance for Quality Education in 2008. In these programmes, quality was defined as broader than, but including, education infrastructure.

The BSP focuses on providing assistance to schools with buildings in urgent need of repair: it has not been designed to support improvements in the quality of education, for example to support schools to adapt teaching methods to the new National Curriculum. While the Review Team concluded that the BSP has been improving the infrastructure of targeted schools, it also recognised that the BSP has the potential to address the broader education quality agenda. Specifically, the BSP could serve to better complement,

support and enhance federal and other programmes, particularly those that fall within the remit of the School Council of Social Participation, such as physical education programmes, recreational, artistic and cultural activities, and bullying prevention and reading programmes. For example by:



- Creating appropriate indoor and outdoor areas to support the reading programme;
- Redesigning toilets and placing hand basins outside to reduce opportunities for bullying and to create additional areas for activities requiring water;
- Providing shaded areas for recreational and cultural activities, which can also serve as safe areas for sporting activities;
- Introduce environmental initiatives such as rainwater recycling, sewage treatment and waterless urinals; and
- Allowing parents, who provide teachers with voluntary support for reading programmes, to use spaces for supervising play, to help maintain gardens and play equipment, to assist with traffic management, and to provide additional cleaning services to ensure the school buildings and grounds are safe, secure and attractive.

Figure 3.5 illustrates the links between the BSP and other school initiatives administered by school committees.

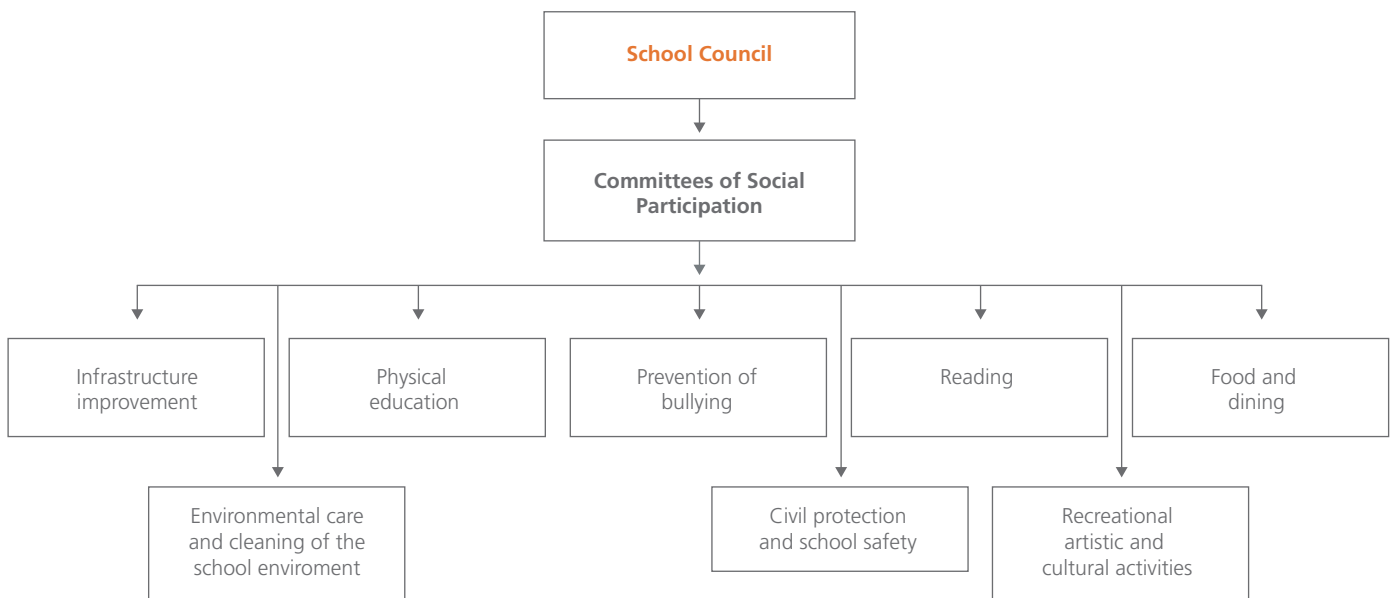


Figure 3.5 ■ The Committees of Social Participation under the School Councils

### 3.3.4 PROVIDING A SAFE, SECURE AND HEALTHY ENVIRONMENT

There is considerable attention given to safety and security in Mexico. While some areas in which schools are located are relatively safe, there is a general concern about the rise in incidences of violence and crime and its possible impact on the school. Not only is there a need to protect schools from intrusion, which is often done by providing external fences, but schools themselves can provide security, for example, as a “safe haven” when there is the likelihood of violence in the community. There are also concerns about traffic outside the school and the need to protect children from traffic accidents.

Discussions with OPSE representatives confirmed that safety and security are key areas of concern to parents and the broader community. They are concerned about safety and security from external threats, be it general violence in a locality, unwanted entry into the school premises, or local safety issues such as road traffic. The OPSE representatives are also concerned about safety within the school premises, citing examples such as:

- Trip hazards which need to be repaired or removed, such as uneven or broken paving or wire or metal protruding from the road;
- Unsafe play equipment, including basketball backboards;
- Outdoor shelters provided by parents which are not built to an appropriate standard and have fallen into disrepair or been damaged by an earthquake or storm.

While fences may be needed in parts of the country with high incidences of violence and robbery and the existence of a defined boundary is important, the Review Team questioned the need for the size, scale and type of fences used in schools visited (Figure 3.6). The Review Team in general questioned the use of the same blanket policy regarding security in schools in all areas.



■ **Figure 3.6** ■ Security fencing, Escuelas José María Morelos, Puebla  
© Alastair Blyth



■ **Figure 3.9** ■ Water tanks for rain storage, Artículo 3ro Constitucional, Los Octores, Oaxaca © Alastair Blyth

In interviews with the Review Team, parents and students also drew attention to the need to improve sanitation (toilets and hand basins with running water), paving, ventilation and lighting levels.

The National Curriculum, which was introduced in 2004, has implications for the quality and quantity of spaces for learning and for the ways in which these spaces are designed, constructed and fitted out with furniture and equipment. However, currently furniture and equipment are not part of the funding arrangement of the BSP.

In schools visited by the Review Team, most renovated classrooms and specialist spaces did not have new furniture or new equipment. Most furniture was old, inappropriate for students and teachers, unattractive and often unsafe. For example, the Review Team noted on several occasions that students

were trying to do group work using old desks with writing arms; chairs were unstable (i.e. with broken frames); and desks needed restoration or replacement. The number of students per classroom, which was 40 in some cases, coupled with the relatively small floor area, made it difficult to arrange the room in any other configuration than desks in rows, which seems to limit the range of options for learning. In addition, obsolete or disused furniture and equipment – which must be checked and catalogued before disposal – was not discarded and cluttered available space.

While the Review Team appreciated the funding constraints, it expressed concern about the lack of regard for furniture and equipment to support the national curriculum, innovative pedagogy and new spaces in general. To address this problem, it suggested that schools and suppliers might be interested in developing a system to coordinate these key requirements. In addition, the immediate removal of old tables, chairs and computers, would make the sites more attractive, safer and healthier.

The Review Team observed that in the majority of schools visited, external areas such as courtyards were not protected from strong sun or rain. The absence of shelter may hinder recreational and educational activities. Shelter of external spaces is badly needed, not only for climatic reasons, but also for developing new educational activities. However, two of the schools visited in the Federal District had set up effective roof shelters as part of the BSP programme, which could also be used for a variety of educational activities:

- The *Amistad Mundial School* (Figure 3.7) had a roof made of a metallic structure and probably polycarbonate roofing. At the time of the visit, this space was used as a dining area.
- In the *Fernando Brom Primary School* (Figure 3.8), the Japanese Embassy financed a well-designed curved roof with a reinforced concrete structure. At the time of the Review Team's visit, this space was used for dancing lessons.



Figure 3.7 Polycarbonate roof at the Amistad Mundial School, Mexico DF

© R. Almeida



Figure 3.8 Curved external shelter at the Fernando Brom Primary School, Mexico City © R. Almeida

### 3.3.5 ENVIRONMENTALLY SUSTAINABLE SCHOOLS

In 2009, INIFED introduced the topic of encouraging sustainable practices within the framework of the BSP through a range of initiatives such as rainwater collection and recycling. Other initiatives currently in place are:

- Waterless urinals;
- Recycling of waste including compostable sewage;
- Low energy consumption light bulbs and timer switches used in key areas;
- Gardens to provide more pleasant environments and also to provide shade; and
- Rainwater storage and reuse (see Figure 3.9).
- Initiatives for the future consideration of the BSP include the installation of:
  - Solar panels, in co-operation with energy companies; and
  - Hydroponic gardens, in collaboration with local suppliers.

## 3.4 SOCIAL PARTICIPATION

### 3.4.1 INTRODUCTION

The BSP was designed to be delivered through social participation – that is, participation of the community and in particular parents. In 2.3.5, the role of the OPSE within the overall project process was described. In this section, the role of social participation in the development of education in Mexico is presented, using examples of BSP schools visited, with suggestions on how to develop the approach. It must be noted that although the Review Team’s observations are drawn from only a few projects, based on the Review Team’s collective expertise, it was able to make some useful observations regarding “what works” and “what does not work” in the Mexico context (see Figures 3.10 to 3.15).

### 3.4.2 SOCIAL PARTICIPATION AND THE BSP

A key feature of the BSP is the promotion of social participation. Social participation has been a feature in Mexican education for many years. The 1993 General Education Law included provisions for participation of parents through School Councils for Social Participation (Schools Councils) not to be confused with OPSEs. This builds on a long tradition of social engagement in education in Mexico:

Mexico has a policy which requires every school to set up a council for social participation to enhance engagement with parents and the community and ensure accountability. School councils and engagement with parents and society can help raise awareness of the value of education in the communities in which schools are embedded. But to function well and exercise their tasks they need some influence over the things that matter: the selection of school staff; resources and how they are acquired and used; the curriculum and other school organisation arrangements. (OECD, 2010)

School Councils are composed of school principals, parents, teachers, former students, union representatives, and “people in general”. Each School Council is invited to establish a network of committees, each with responsibility for action in one of eight aspects of the school: (i) infrastructure improvement; (ii) environmental care and cleaning of school environment, (iii) physical activities (such as sports); (iv) civil protection and school safety; (v) prevention of bullying; (vi) reading; (vii) recreation, artistic and cultural activities; and (viii) healthy eating.

The main roles of the School Councils are to provide support for education activities; to become familiar with and offer opinions on pedagogical issues, plans, programmes and sector evaluations; and to propose policies to improve quality and attainment in education. In addition, School Councils participating in the Quality Schools Programme (QSP, *Programa Escuelas de Calidad*) (OECD, 2010) are required to produce an annual working plan and a strategic plan for school transformation in 5-year cycles. While the QSP is not the subject of this review, it is relevant in that these plans include infrastructure. It would be useful to understand how these plans relate to BSP projects and how schools intended to harness the work of the BSP. Based on interviews conducted by the Review Team, these plans did not exist in the schools visited, although the schools did have School Councils. Between 2000-01 and April 2012, the proportion of publicly maintained schools with School Councils reportedly increased from 42% to 80%, that is, from approximately 80 000 to nearly 190 000 schools.<sup>4</sup>

However, the Review Team observed that the School Councils exist largely in name only. As was reported in the OECD’s report *Improving Schools – Strategies for Action in Mexico*:

To date, it appears that the mandate has been fulfilled only to a limited extent, and quite unevenly... Social participation councils at the state and local government levels do not seem to have progressed significantly as participation catalysers among stakeholders, and their activities seem more focused on operative aspects. (OECD, 2010)

### 3.4.3 CHARACTERISTICS OF SUCCESSFUL SOCIAL PARTICIPATION

There is extensive literature on the characteristics of effective social participation. For example, effective social participation requires strong relationships (Santizo Rodall and Martin, 2009), and must have a clear sense of purpose (King and Cruickshank, 2010) and meaningful dialogue (Morris, 2006). Other characteristics include shared goals; capacity for partnership work; governance and leadership; and trust (Billett *et al.*, 2007). While this is not a comprehensive literature review, it does provide a framework for the Review Team’s observations.

Through discussions with the various stakeholders in the BSP including teachers, principals, parents, contractors, supervisors, INIFED and education authorities, the Review Team observed some common characteristics of successful social partnerships. Perhaps the most important was a strong relationship characterised by trust, which is core to any social participation enterprise (Santizo Rodall and Martin, 2009). Other characteristics included responsibility, empowerment, a sense of shared ownership and strong leadership.



■ **Figure 3.10** ■ School Principal (left) with INIFED State Co-ordinator at Escuela Viezay Ramirez, Puebla Principal

© R. Almeida

### 3.4.3.1 MAKING PARTNERSHIPS WORK

The BSP does not follow a traditional model of education delivery, whereby parents as “clients” are the recipients of an education service delivered by one or more government agencies (Santizo Rodall and Martin, 2009). In the BSP, parents are indeed “clients”, but they are also “stakeholders”, “partners” and “professionals”. The role of the client is perceived as more passive, whereas a partner is more actively involved and shares the responsibility for education delivery. As part of its role, the OPSE is encouraged to consider the aspects of the school most in need of refurbishment. The OPSE often works with the school principal to set out a comprehensive list of needs, although INIFED’s Technical Promoter completes the Technical Information Card, which is based on a survey identifying what truly fits within the priorities of the programme (see 2.3.4). The OPSE supervises the construction work, which is a role that a “client” would often expect the “professional” to undertake. This had the intended effect of empowering the local community. At the same time, it relieves professional staff at the school and INIFED of a measure of responsibility.

Similarly, the agency responsible for providing the education service, in this case INIFED, is performing multiple roles of “advisor”, “professional” and “partner”. INIFED in its capacity as “advisor” serves as the crucial interface between the OPSE and the project team establishing the technical project. To a great extent, INIFED’s role is to manage the expectations of the OPSE and the school: to balance the OPSE’s needs with the constrained budget and the wider priorities of the BSP. This requires a participatory approach, and the Review Team agreed that the processes put in place by INIFED successfully facilitated such an approach. To enable this process to function, there must be openness and honesty amongst the participants and mutual respect between partners to build and maintain the relationship (Billett *et al.*, 2007). The Review Team noted during school visits that there was considerable respect for INIFED’s role and for the person fulfilling it. Although on many occasions, the hopes of the OPSE and school principal in terms of what the BSP project would fund were far greater than the funding available for a project, good relationships were developed through regular dialogue with parents. The school felt that they could influence, to some extent at least, the outcome.

Sometimes, a significant constraint to fostering effective participation in different social groups can be unequal power relations (Morris, 2006). For example, if a community organisation is relying on funding from government, or if one party has substantially more knowledge than the other, some participants may feel obliged to accept the choices of the most powerful partner(s) (Eversole, 2010). In the BSP, the role of INIFED as advisor ensures that the OPSE maintains influence over the process and outcome, and is able to leverage the knowledge of its more powerful partner for the community good.

### 3.4.3.2 SOCIAL OWNERSHIP OF THE PROCESS

The parents interviewed by the Review Team felt that they were able to make a meaningful contribution to discussion and decisions. On several occasions the Review Team noted that the list of actions requested by parents could not be carried out under the BSP due to the limited scope of the programme. Although parent participation did not guarantee that parents' wishes were always granted, parents appreciated the dialogue and understood the limitations of the BSP (see Box 3.2).

But the parents and school were not the only ones to benefit from the BSP. The contractor also shared ownership of the process. One of the objectives of the BSP was to support the local economy by selecting local contractors who would then, when needed, hire people with the appropriate skills, providing a boost to the economy. In some cases, such as in Oaxaca, businesses are located far from the workers' villages; in other cases, equipment must be brought in from another state. However, contractors reported to the Review Team a feeling of appreciation, pride and prestige regarding the BSP and their involvement in the BSP. In addition, close co-operative relationships between contractors, OPSE, INIFED and others improved ownership in the project and outcomes.

### 3.4.3.3 DEVELOPING A STRONG RELATIONSHIP UNDERPINNED BY TRUST

Building and retaining trust in a partnership requires engaging with local community partners to build confidence in the partnership. Accountability and transparency have played an important part in engendering trust of different groups in the BSP, in large part because the processes, and roles and responsibilities of each group have been well defined and communicated. Another important contributing factor to accountability and transparency in the BSP has been the responsiveness of INIFED to specific situations, which has built trust in INIFED and the BSP.

Communities visited by the Review Team were noticeably suspicious of government, particularly because government at large at all levels was perceived as being unresponsive to their needs or self-interested. The Review Team heard numerous reports of unfulfilled promises regarding requests for future building projects, or pleas for action being ignored. The local communities appeared to make little distinction between the various layers of government. However, the transparency of the BSP process with its clear decision-making framework, rules and lines of responsibility were welcomed by each community encountered by the Review Team. Parents, teachers and



■ **Figure 3.11** ■ In the kitchen at Escuela Esperanza Villasana, Mexico DF

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**OECD Review Team.** What do you think of the work that has been done?

**OPSE President.** I am very pleased now. Before, this was a mess. The roof sheets were useless and the windows were broken. We are happy [with funding from the BSP] because we lack funds. Before, we helped with all the repairs for the school. Now, being helped by “the nation” is a good thing because we are poor.

**OECD Review Team.** Do you participate in the maintenance of the school?

**OPSE President.** Yes

**OECD Review Team.** How do you participate?

**OPSE President.** We work together fixing roofs, keeping the school clean, sweeping and bringing water for the children.

**OECD Review Team.** Besides you, who belongs to the association? Do the other parents help?

**OPSE President.** Yes, they help cleaning and taking care of trees. Now, we are going to fix the floor and that is a task parents will do.

**Mother.** We need more support for our children.

■ **Box 3.2** ■ **Extract from an interview about the BSP\***

\* The interview was conducted between a member of the OECD Review Team, a parent and the president of the OPSE, Escuela Artículo 3º Constitucional de los Ocotes, Oaxaca. The school is located in a rural community in the state of Oaxaca.

others members of the community interviewed by the Review Team reported that participation in the BSP had shown that the government can actually deliver something for them, and that their say does matter. Contractors interviewed by the Review Team also approved of the transparency of the selection process.

In the schools visited by the Review Team, those working effectively demonstrated:

- A strong relationship between the OPSE, the school principal and staff;
- A clear plan for school improvements;
- The engagement of professional expertise; and
- Realistic responsibilities and workload for those in volunteer positions.

In some instances, co-operation between all parties was so successful that the contractor provided additional services to the school to ensure that the job was completed to the satisfaction of all parties, thus exceeding expectations.



### 3.4.3.4 GOVERNANCE AND STRONG LEADERSHIP

Effective governance is important for the development and continuity of social partnerships. In the BSP, parents have a recognised and clearly defined role in the process, in addition to a real and defined role and place in the school and community. Lack of a clear role and expectations can pose a significant problem when engaging a segment of the community (OECD, 2010). In the case of the BSP, for example, lack of clearly defined roles could result in the OPSE taking responsibility for areas outside its field of expertise, such as that of the school director. The role of the OPSE is clearly defined in the BSP (see 2.3.5): to identify the work required at the school, to take responsibility for the contract, to be the project’s “eyes and ears” on behalf of the community, and to ensure the successful implementation and timeliness of the work. The OPSE has to form a contract which carries with it legal responsibilities. Its power under the contract is relatively limited, but it is responsible for example for hiring the contractor, providing INIFED with the necessary information at the appropriate times so that it can make payments to the contractor, and co-operating with INIFED during the BSP. The Review Team noted in interviews that the OPSE clearly valued its position, responsibilities and defined role. The status of the OPSE as a formal body – rather than an informal group of people – was clearly meaningful to its members.

With good governance comes strong leadership (Morris, 2006). The presidents of those OPSEs interviewed by the Review Team were clearly able to provide strong leadership. Each president had a clear understanding of their role and the decisions they were expected to make.



Figure 3.12 ■ Members of the school OPSE with INIFED at Telesecundaria Guadalupe Hinojosa de Murat, Oaxaca  
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Figure 3.13 ■ OPSE president at Escuela Niger, Mexico DF  
© R. Almeida

### 3.4.3.5 CAPACITY FOR PARTNERSHIP

According to the literature, parents who engage in school projects involving social participation tend to be better educated, better able to interact with school directors and teachers, and therefore more prepared to play a role in decision making (Khan, 2006).

Although the Review Team did not specifically evaluate this aspect, a clear advantage to the OPSE's smooth operation is a president and/or OPSE representatives who have had experience with the system, especially teachers. For example, in one school in Oaxaca, the president of the OPSE was a former school director, and had previous experience of negotiating with the state for funding. The project clearly benefited from the president's previous experience and understanding of the processes. In addition, the president's role as former school director helped to reinforce the OPSE's relationship with the school.

### 3.4.3.6 EMPOWERING PARTNERS

The Review Team observed that the OPSE felt empowered by its responsibilities to advise on priority needs and to monitor construction work undertaken by contractors, etc. through the project and beyond. At the end of the project, the Review Team noted that some OPSE and schools would continue to seek funding and support for other projects, for example obtaining sponsorship from local private sector organisations, bringing together individuals in the community to supplement and complement work completed through BSP, or implementing other projects. This is supported by the literature on the likelihood of shared goals sustaining interest, particularly volunteer effort (Billett *et al.*, 2007).



■ **Figure 3.14** ■ OPSE president (right) with INIFED state coordinator at Escuela Elena Adams Keller, Oaxaca

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## 3.4.4 CONCLUSION

In many ways, the BSP represents exemplary practice with regard to implementing effective social participation. Possible reasons for the success of this aspect of the BSP could be related to the long history of social participation approaches, coupled with the speed of BSP's implementation – i.e. results can be seen quickly by communities. In addition, innovative features such as the selection of contractors provides a rapid response to urgent need, leading to a tangible result and bringing the stakeholders together at the point of delivery, rather than at an early stage of discussion.

The effects of these interventions were observed by the Review Team. Parents even in the most remote rural areas of each state consistently reported that they were grateful to have their views considered; were satisfied and proud of their accomplishments; and were confident and empowered

by their active participation in the process. The success of the BSP in some schools observed by the Review Team had the unintended consequence of raising aspirations in neighbouring schools, thus prompting their application for a project under the BSP, especially in low populated areas.

The end of a BSP project was for many the first step towards stronger and more engaged participation in the school. Parents were keen to push ahead with new initiatives. They also realised the manifest need for community involvement in the form of voluntary work to compensate for deficiencies in the education budget (see 2.1.4). In many of the schools visited by the Review Team, parents undertook much of the cleaning and day-to-day maintenance voluntarily (e.g. replacing light bulbs). Parents are more likely to contribute if they feel involved more generally in their children's schools. While the School Council for Social Participation is an established mechanism for such involvement in Mexico; the BSP has struck a chord in many schools. The Review Team therefore agreed that the government should consider harnessing this goodwill and momentum by creating a network of active parents' associations in Mexico using BSP's model of social participation, in consultation with individual states and teachers' representatives.

Involving the community in an activity that they understand and in which they can make a useful contribution is both practical and empowering.



Figure 3.15 ■ Parents at Escuela Independencia, Oaxaca  
© Alastair Blyth

### 3.5 DEVELOPING MASTER PLANS FOR SCHOOLS

The Review Team agreed that the implementation process established by INFED includes a number of innovative features which could be used in future programmes like the BSP, such as the establishment of the OPSE, the *sortition* process and the detailed technical analysis of each school developed in the CIT.

Developing a master plan for each school would serve to build on these innovative aspects of the BSP. A master plan demonstrates how a number of small projects – or the addition of a classroom, laboratory, media room or shelter co-ordinated over time – can improve a school. Using the data provided in the CIT, in addition to qualitative information, a master plan could provide a useful planning and decision-making tool for groups such as the OPSE, who would be able to plan stages for rehabilitation and for remodelling and furnishing and equipping existing or new spaces. The development of a master plan would permit the development of a medium-term plan of the school, thus allowing groups like the OPSE to seek additional funds, or organise the school community to carry out works within the framework of the master plan.

These projects could be financed by the community as voluntary work, through local resources, or through state or federal-funded government initiatives. Such a plan should distinguish between the work that needs to be done by qualified and experienced contractors and that which can be carried out by volunteers from the community, including parents and community groups.

### 3.6 THE WIDER IMPACT OF THE BSP

There have been significant economic and other impacts of the BSP. Since its launch in 2008, INIFED estimates that the BSP has supported 417 000 short-term construction jobs (Table 2.1 and Table B3) across the 31 states and the Federal District. Assuming average contracts of 3 to 4 months, this represents the equivalent of some 100 000 to 130 000 jobs for a full year.

In addition, there will have been two kinds of multiplier effects of the BSP. The first relates to support services and sub-contractors to the construction companies undertaking the BSP projects, and the associated increased demand for materials and components. The second relates to providing employees with goods and services (e.g. travel and subsistence) as they carry out the work. The injection of funds by the BSP has brought additional employment and demand to the local communities of the 19 399 schools that have benefitted from the BSP.

The BSP is also as an exemplar of good practice, the processes for which are relevant to other sectors in Mexico and internationally. The effective engagement of the local community in the operation and follow-up of a relatively modest building programme has potential application to other programmes – in education and beyond – involving the investment of public funds to the benefit of local communities. In addition, the use of the transparent lottery or *sortition* process to award contracts to contractors from an approved list could be applied to similar programmes involving public contracting.

### NOTES

1. Puebla was the only state that did *not* sign the required agreement with the federal government. However, Puebla signed the agreement one year later.
2. Schools councils have been embodied in Mexican federal law since 1823, long before many European countries had developed state education systems.
3. These figures include expenditure and schools participating in the Sanitary Facilities Refurbishment programme.
4. Sistema estadístico de la Secretaría Técnica del CONAPASE, RENACE, REPUCE and Dirección General de Planeación de la SEP.
5. Articles 69-72 (Mexico Government, 1993).

#### 4. CONCLUSIONS AND RECOMMENDATIONS

*This chapter presents the conclusions and recommendations of the OECD review of the Better Schools Programme in Mexico regarding its implementation; organisation and governance; funding and cost-effectiveness; quality; and social participation.*



Laying the foundations for a better school - © INIFED



Laying the concrete ground floor of a new block for Escuela Nucleo Sanitario - © INIFED

## 4. CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations should be interpreted in light of the successful implementation of refurbishment projects in 19 399 schools by the National Institute of Physical Infrastructure for Education (INIFED, *Instituto Nacional de la Infraestructura Física Educativa*) as part of the Better Schools Programme (BSP). Initially, 16 000 schools were assigned for urgent repair by the Secretariat of Public Education (SEP, *Secretaría de Educación Pública*), but an additional 3 399 schools were repaired by INIFED.

### 4.1 IMPLEMENTATION

#### 4.1.1 CONCLUSIONS

The implementation procedures devised by INIFED for the BSP were developed for a very specific context (i.e. a large number of small works contracts). INIFED has put in place detailed procedures regarding the administration of the BSP, from initial conception to the realisation of each project. The operational structure of the BSP was appropriate and enabled close continuous contact with the OPSE. The Review Team concluded that some aspects of these processes may be applicable in other contexts.

- **The process of identifying priority schools** and then, with the Organisation of Social Participation in Education (OPSE, *Organización de Participación Social en Educación*), **prioritising work** to be undertaken in these schools is **efficient** and can be adapted to each specific situation. It took only a few days per school from diagnosing the physical condition of the school to defining the technical project, with the involvement and approval of the OPSE.
- The procedure of awarding contracts for construction work through the *sortition* process, in co-operation with **OPSE** and within the **framework** of an agreement with the state, has enabled INIFED to proceed with the **rapid and efficient implementation of the BSP**. The rapidity of the process for awarding contracts was commendable: it took 3 to 4 months between signing and completion of the contracts. In addition, verification processes for work appear appropriate.

- The *selection of local small- and medium-sized contractors by sortition*, and the process of *contractor payment* made by bank transfer directly by INIFED, with the approval of OPSE (without any intermediary), has been carefully conceived and inspired confidence in the transparency of the BSP.
- One consequence of the *sortition* process is that small- and medium-sized companies participating must *keep improving their organisation and delivery*; those that do not are excluded.
- The *use of local companies* benefits the local economy by providing local employment, the purchase of materials and increased expenditure in local restaurants and hotels and so on.
- The fact that the OPSE addresses its *letter requesting the subsidy* directly to the President of Mexico raises the self-esteem of the OPSE and creates a feeling of ownership. The OPSE serve as the legal client on behalf of the school. It is responsible for commenting on, taking decisions and supervising the school project; contributing to the transparency and presentation of financial accounts; verifying that the building materials and improvement actions are of good quality; and checking that the work is completed on time, with minimal disruption to educational activities.
- The procedures have *in-built feedback processes* so that subsequent projects and rounds of the BSP benefit. The selection of the contractors based on their previous performance in the BSP, and the technical specification (catalogue) database is updated as new solutions are devised.

#### 4.1.2 RECOMMENDATION

- *Develop master plans for each school* to show how a number of small projects co-ordinated over time could improve the school. The master plan could:
  - » Include an assessment of the condition of the overall school from the perspective of its physical condition as well from a qualitative point of view, thus enabling planning for rehabilitation, remodelling, furnishing and equipping existing or new spaces to respond to the demands of a 21st century education. With a medium term overview of the school, the OPSE can seek additional funds, or organise the school community to carry out works within the framework of the master plan.
  - » Identify work to be completed by qualified and experienced contractors and by volunteers from the community, including parents and community groups.
  - » Draw upon the technical analysis used in the Technical Information Card (CIT, *Cédula de Información Técnica*) to help the school and parents' associations reflect about future projects that cannot be addressed by the BSP or a similar type of programme.

## 4.2 ORGANISATION AND GOVERNANCE

### 4.2.1 CONCLUSIONS

- As an independent federally-funded agency responsible for regulating and advising on school building projects in Mexico – and as a repository of information for school facilities policy and practice in the country – INIFED is well placed to administer the BSP.
- The BSP was initiated by and remains the responsibility of the federal government, but directed at schools that are owned and managed by the states. In this complex context, INIFED was able to develop successful processes for administering projects, selecting contractors, and transferring funding safely and securely.
- The BSP's governance model is successful because it is based on INIFED overseeing the implementation of the BSP and directly controlling payments to contractors, while ensuring social participation through the OPSE.

### 4.2.2 RECOMMENDATIONS

- ***Support the continued central role of INIFED in any successor programme;*** and
- ***Consider using the sortition or lottery process in future programmes like the BSP.*** For programmes of this size, with many small projects, the *sortition* process is an efficient way to ensure that government work is allocated to contractors who have demonstrated ability to manage and deliver projects on time, within budget and to the specified standards.

## 4.3 FUNDING AND COST EFFECTIVENESS

### 4.3.1 CONCLUSIONS

- The BSP has been centrally directed and tightly run. The use of standard specifications and materials has permitted economies of scale and ensured that a given sum of money delivered the expected output. Contracts did not permit variations in the contractual sum, and INIFED provided fixed price specifications, so that the contractor was not permitted to submit a competitive price. Procedures adopted by INIFED for administrative overhead costs were fit for purpose. While the Review Team did not review the cost of projects, it agreed that the sums involved did not appear to yield excessive profits for contractors.
- Considering the modest average project cost (MXN 490 000), which is consistent with INIFED's initial target for the refurbishment of at least 16 000 priority schools, there have been significant returns to schools and communities.



- INIFED deployed resources effectively in line with the strict regulations and financial constraints governing the BSP's implementation. These define the procedures for identifying and prioritising schools, awarding contracts, construction specifications, materials to be used, resource allocation and schedules of work. Therefore, the Review Team concluded that the resources available for the BSP were distributed with due regard to cost effectiveness, with the following caveats.
  - » Within the agreed scope and budget of the BSP, it has only been able to address a proportion of schools in urgent need of repair in Mexico; and
  - » For many of the 19 399 schools benefitting from the BSP, funds were not intended to be used to refurbish the school completely.

### 4.3.2 RECOMMENDATIONS

- **Consider extending the BSP and, over time, encourage states to adopt similar models.** Such models would build on Mexico's tradition of community participation.
- **Encourage a culture of continuous investment in the maintenance and refurbishment of school buildings nationally, and state by state,** by building on appropriate incentives and mechanisms.

## 4.4 QUALITY

### 4.4.1 CONCLUSIONS

- The priorities identified by INIFED (*i.e.* roofing, sanitation, fenestration, etc) have improved the infrastructure of targeted schools. The Review Team encountered examples in schools ranging from basic repairs, which made the buildings and grounds functional and safe, to more significant improvements in which the quality of the built environment had been improved and enhanced. However, a more holistic approach is needed in order to address the broader education quality agenda and provide truly functional environments that meet the needs of 21st century education. Specifically:
  - » The BSP could serve to better complement, support and enhance federal and other programmes, particularly those that fall within the remit of the School Council of Social Participation, such as physical education programmes, recreational, artistic and cultural activities, and bullying prevention and reading programmes.
  - » The BSP could tackle not only isolated worst areas of deterioration, but all elements of the environment, notably the structural soundness of the buildings; ventilation and lighting; painting; sanitation; drinkable water; equipment, including computers, smart boards, reading material, toys and materials; and furniture and fittings.

## 4.4.2 RECOMMENDATIONS

- **Consider forging better links between the BSP and other programmes**, with a view to creating an infrastructure that complements and supports broader education quality goals.
- **Extend the BSP's model of community engagement (OPSE) to address issues relating to the learning environment as a whole.** This could be achieved for example by making simple design solutions available to the school and OPSE, or by involving these groups in the development of master plans for the school.
- **Provide support to assist schools and teachers to utilise educational spaces more effectively and efficiently.** In order for students to fully benefit from the new spaces provided by programmes such as the BSP, teachers need to understand how educational spaces can be used to better support pedagogy and the curriculum. For example, corridor and outdoor areas can be places for learning, but can still provide a safe and secure learning environment.
- **Develop new specifications for covered shelters in external spaces as part of INIFED's Improvement Actions.** The Review Team observed that in the majority of schools visited, external areas such as courtyards were not protected from strong sun or rain. The absence of shelter may hinder recreational and educational activities. Shelter of external spaces is badly needed, not only for climatic reasons, but also for developing new educational activities.
- **Develop flexible school safety and security-related specifications that can be adapted to local contexts.** Particular elements may be better suited to schools in some areas or states than others, for example stone walls, fences, etc. These specifications could be included in the "Component Reference Catalogue", which is updated every year.
- **Include provision for appropriate furniture and equipment in future projects, either through public investment or via community or other voluntary donations.** The omission of provision of furniture and equipment in the BSP has meant that newly refurbished classrooms and buildings still have inflexible, often dilapidated, furniture.
- **Develop a process to rapidly remove old disused furniture and equipment.** Removing old, broken furniture and equipment would improve the safety and accessibility of sites. A bar code scanning system, for example, is an efficient way of recording material received and removed from the school site.

## 4.5 SOCIAL PARTICIPATION

### 4.5.1 CONCLUSIONS

- Social participation has been one of the cornerstones of the BSP and reflects a long history of social participation in Mexico. The BSP seeks to harness the energy and enthusiasm of parents in participating schools. While this activity is contributing to the success of the BSP, it is only likely to be sustained by strong leadership and ongoing support.

- The BSP has demonstrated how partnerships between the community and government can result in substantial benefits to the community and foster trust in the government's capacity to deliver quality education services. The success of the BSP in some schools observed by the Review Team had the unintended consequence of raising aspirations in neighbouring schools, thus prompting their application for a project under the BSP.
- A clear decision-making framework, clarity of roles and expectations, and well-defined lines of responsibility have contributed to the successful engagement of parents and others in the BSP.

#### 4.5.2 RECOMMENDATION

- ***Create a network of active parents' associations in Mexico*** using BSP's model of social participation, in consultation with individual states and teachers' representatives.



REFERENCES



Replacing or repairing windows is one priority of the BSP  
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Repairing the roof of Escuela Héroes de México, Yucatan  
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# REFERENCES

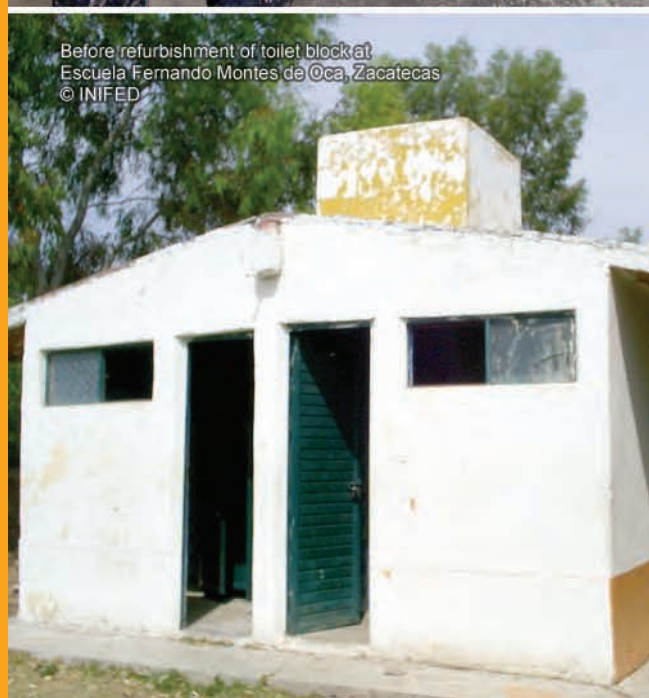
- Almeida, R (1988), *Handbook for Educational Buildings Planning: Education Buildings and Equipment 9*, UNESCO, Paris
- Banque Africaine de Développement, UNESCO and Ministère de l'Éducation nationale du Maroc (1995), *Guide conception des bâtiments éducatifs*, UNESCO, Paris, <http://unesdoc.unesco.org/images/0012/001294/129494f.pdf>.
- Billett, S., C. Ovens, A. Clemans and T. Seddon (2007), "Working and contested practices: forming, developing and sustaining social partnerships in education", *Journal of Education Policy*, 22 (6), pp. 637–656.
- Bussat, P. (1963), *La Coordination modulaire dans le bâtiment*. K. Kramer, Stuttgart
- Centre de Rationalisation et organisation des constructions scolaires (CROCS) (1967), *Rapport d'Etudes: Propositions de Normes et Modulation*, CROCS, Geneva.
- Chávez, J.J. (2000), "*Evaluación del Desempeño*" Módulos de Autoaprendizaje. Guatemala.
- Cicconcelli, C. (1965), *La Progettazione nell'edilizia scolastica*.
- Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL) (2011), *Informe de Evaluación de la Política de Desarrollo Social en México 2011*, CONEVAL, Mexico DF.
- Dunstone, P.K. and K. Dunstone (1965), *Combinations of Numbers in Building*, Estates Gazette, London.
- Eversole, R (2010), "Remaking participation: challenges for community development practice", *Community Development Journal* 47 (1), pp 29-41.
- INIFED (2005), "NMX-R-021-SCFI-2005 Escuelas - Calidad de la Infraestructura Física" (*Schools – Quality of Educational Physical Infrastructure – Requirements*), [www.inifed.gob.mx/doc/Normateca%20Capfce/nmx-r-021-scfi-2005.pdf](http://www.inifed.gob.mx/doc/Normateca%20Capfce/nmx-r-021-scfi-2005.pdf).
- INIFED (2008), "Decreto por el que se expide la Ley General de la Infraestructura Física Educativa (General Law on Physical Educational Infrastructure)", <http://www.inifed.gob.mx/doc/Ley.pdf>.
- INIFED (2009), "NMX-R-024-SCFI-2009 Escuelas - Supervisión de Obra de la Infraestructura Física Educativa – Requisitos" (*Schools: Construction Supervisor for Educational Facilities – Requirements*), [www.inifed.gob.mx/doc/Normateca%20Capfce/nmx-r-024-scfi-2009.pdf](http://www.inifed.gob.mx/doc/Normateca%20Capfce/nmx-r-024-scfi-2009.pdf).
- INIFED (2010), "Lineamientos Generales para Programas de Mantenimiento y Rehabilitación de Escuelas" (*General Guidelines for Maintenance and Rehabilitation Programmes for Schools*), [http://www.inifed.gob.mx/doc/LINEAMIENTOS\\_Generales\\_para\\_Programas\\_de\\_Mantenimiento\\_y\\_Rehabilitacion\\_de\\_Escuelas.pdf](http://www.inifed.gob.mx/doc/LINEAMIENTOS_Generales_para_Programas_de_Mantenimiento_y_Rehabilitacion_de_Escuelas.pdf).

- INIFED (2012), Manual de Operación del Programa de Mejoramiento de Infraestructura Física Educativa “Mejores Escuelas” 2012 (*Operations Manual for Better Schools Programme 2012*), [http://www.inifed.gob.mx/doc/MejoresEscuelas2012/Manual\\_de\\_Operacion\\_2012.pdf](http://www.inifed.gob.mx/doc/MejoresEscuelas2012/Manual_de_Operacion_2012.pdf).
- Khan, F. (2006), “Who participates in school councils and how”, *Prospects* 36 (1), March 2006.
- King, C. and M. Cruickshank (2010), “Building capacity to engage: community engagement or government engagement?” *Community Development Journal* 47 (1), pp. 5-28.
- Martin, B. (1965), *The Coordination of Dimensions for Building*, Royal Institute of British Architects, London.
- Mexico Government (1993), Ley General de Educación (*General Law of Education*), <http://www.diputados.gob.mx/LeyesBiblio/pdf/137.pdf>.
- Mexico Government (2010), Poverty Factsheet 2010.
- Ministry of Education, United Kingdom (1961), *Building Bulletin No.19. The Story of CLASP*, Ministry of Education, London.
- Morris, J. (2006), “Removing the barriers to community participation”, A report by the National Community Forum, National Community forum for the ODPM, UK.
- National Institute of Physical Infrastructure for Education (INIFED) (2004), “NMX-R-003-SCFI-2004 Escuelas - Selección del Terreno Para Construcción – Requisitos” (*Schools – Site Selection for Construction of a School Building – Requirements*), <http://www.cievimac.com/nmx-r-003-scfi-2004.pdf>.
- OECD (2006), *Compendium of Exemplary Educational Facilities, 3rd Edition*, OECD, Paris.
- OECD (2010), *Improving Schools - Strategies for Action in Mexico*, OECD, Paris.
- OECD (2011a). *Designing for Education. Compendium of Exemplary Educational Facilities. 2011*, OECD, Paris.
- OECD (2011b), *Education at a Glance*, OECD, Paris.
- OECD (2011c), *OECD Economic Surveys: Mexico 2011*, OECD, Paris.
- OECD (2012), *Modernising Secondary School Buildings in Portugal*, OECD, Paris.
- Roberts, L. (1955), *The Modular Quarterly. Modular Coordination Research*, Modular Society, London.
- Santizo Rodall, C and C. Martin (2009), “School-based management and citizen participation: lessons for public education from local education projects”, *Journal of Education Policy* 24 (3), pp. 317-333.
- Secretariat of Public Education (SEP) (1992), “Acuerdo Nacional para la Modernización de la Educación Básica” (*National Agreement for the Modernisation of Basic Education*), <http://educacionespecial.sep.gob.mx/educacioninclusiva/documentos/PoliticaNacional/AcuerdoModernizacionEB.pdf>.
- UNESCO (1975), *Planning Buildings and Facilities for Higher Education*, UNESCO, Paris.

- UNESCO (1983), *Accommodation and Space for Secondary General Schools*, UNESCO, Paris.
- UNESCO, Ministry of Education Chile and Ministry of Public Works Chile (2000), *Guía de diseño de espacios educativos*, UNESCO, Santiago, <http://unesdoc.unesco.org/images/0012/001231/123168s.pdf>.
- World Bank (2009), Total GNI Atlas Method.
- World Bank (2010a), Mexico Country Brief.
- World Bank (2010b), Project Appraisal Document for second phase of proposed loan to the United Mexican States for a School-Based Management Project, May 2010.



- **Annex A.** Some design suggestions
- **Annex B1.** OECD/CELE Review Team
- **Annex B2.** Programme of the review visit and people interviewed
- **Annex B3.** Summary of the schools visited by the Review Team and the work carried out under the BSP
- **Annex B4.** Number of actions, total investment, jobs generated and students benefitting from the Better Schools Programme, by state (2008-12)
- **Annex B5.** Comparing Australia's National School Pride Programme and Mexico's Better Schools Programme



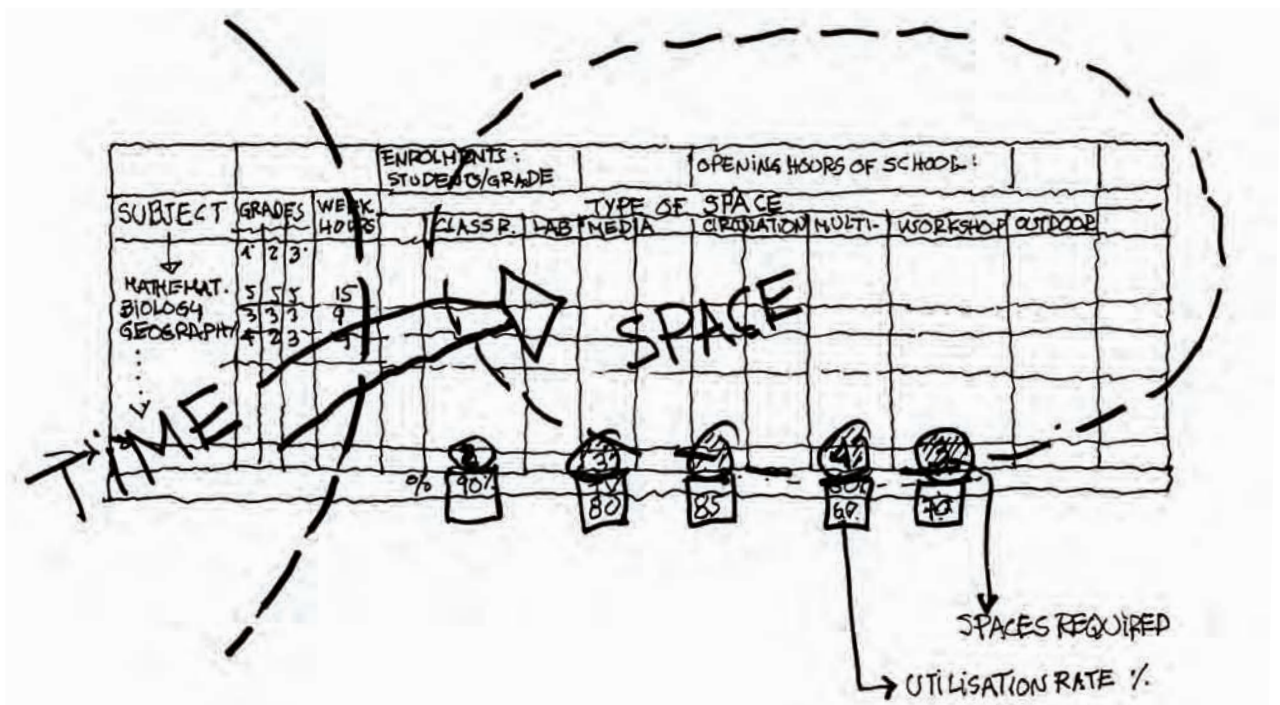
## ANNEX A. SOME DESIGN SUGGESTIONS

Improving the quality of schools has been on INIFED's agenda for some years. This annex was developed by the Review Team to illustrate the type of studies that could be conducted in future programmes to better link the requirements of 21<sup>st</sup> century education with architectural solutions. Such studies could benefit the state school building organisations when they are planning schools and provide the basis for flexible design guidelines that could be applied contextually in all Mexico.

### ARCHITECTURAL PROGRAMMING OF EDUCATIONAL SPACES

Careful architectural programming is a crucial to obtaining the best architectural response to educational activities. The principle is that all spaces support education.

Figure A1 presents a matrix to show how TIME (the weekly study programme per subject, per grade) relates to SPACE (different type of spaces: classrooms, multimedia, labs, circulations, etc.), taking into consideration the design capacity of the facility (i.e. foreseen enrolments). This will result in a flexible list of spaces with a high utilisation rate.



■ Figure A1 ■ Matrix for preparing schedules of accommodation

© R. Almeida

Different schedules of accommodation (giving number, types and sizes of spaces) can be explored that both support the quality of education and enable an affordable size of the facility. This process can be used to stimulate dialogue between educators and architects, and facilitate the participation of the school community when defining pedagogical, social and local needs before starting the preliminary design. It can be most useful when upgrading a school building for the purpose of defining a future master plan for the school, with school and community participation.

## THE PLANNING GRID

The planning grid, which enables spaces to be arranged on a plan within predefined modules, plays an important role in the design of educational buildings.

Often, planning grids assume unidirectional growth – that is growth in one direction only (Figure A2, Drawings 1 and 2). A unidirectional growth grid is usually used to design spaces along an open corridor, producing small- or medium-sized buildings that can be easily built on a site. However, a unidirectional growth grid only permits flexibility between adjacent spaces.

Another use of the unidirectional growth grid is to plan the so-called “double loaded corridor”, whereby spaces are situated on both sides of a corridor. The corridor or circulation space, depending on its width, can be used as an educational space for small group learning or individual studies. The unidirectional growth grid with its double loaded corridor permits flexibility between adjacent spaces, spaces and circulation, and spaces on both sides of the corridor and with the circulation.

For bidirectional growth where growth can be in two directions (Figure A2, Drawing 3), the planning grid, with the structural grid, provide a flexible means of planning different types and sizes of spaces, not necessarily aligned, for a more complex schedule of accommodation.

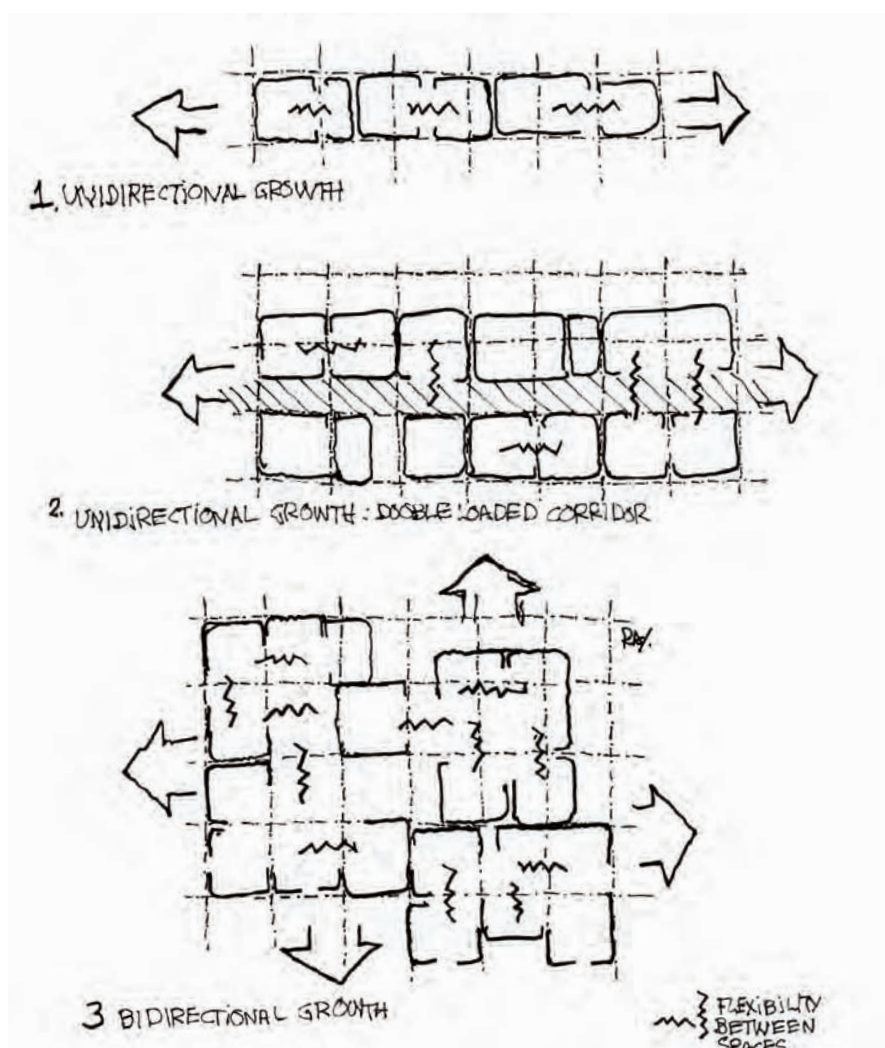


Figure A2 ■ Use of planning grids

© R. Almeida

The use of bidirectional growth began in the 1950s in the United Kingdom when different local authorities began to design school buildings to meet emerging pedagogies. Modular building systems such as CLASP were developed to enable the change. These ideas were developed in many ways in different countries. Several architects from the United Kingdom (Dunstone and Dunstone, 1965; Ministry of Education, United Kingdom, 1961; Roberts, 1955), Italy (Cicconcelli, 1965) and Switzerland (CROCS, 1967) have undertaken detailed studies on planning grids.

## SIZES OF EDUCATION SPACES IN DIFFERENT COUNTRIES

Table A1 provides examples of sizes of education spaces in different countries. These illustrate the provision of internal and external spaces for different educational activities, and reflect the capacity of a school and related factors such as overcrowding.

It should be noted that in the case of laboratories, some design solutions provide spaces for different group formations by locating the service installations (water, electricity, gas, etc.) along the perimeter of the space. Working tables can thus be configured in a variety of ways to meet different educational activities (Figure A3).

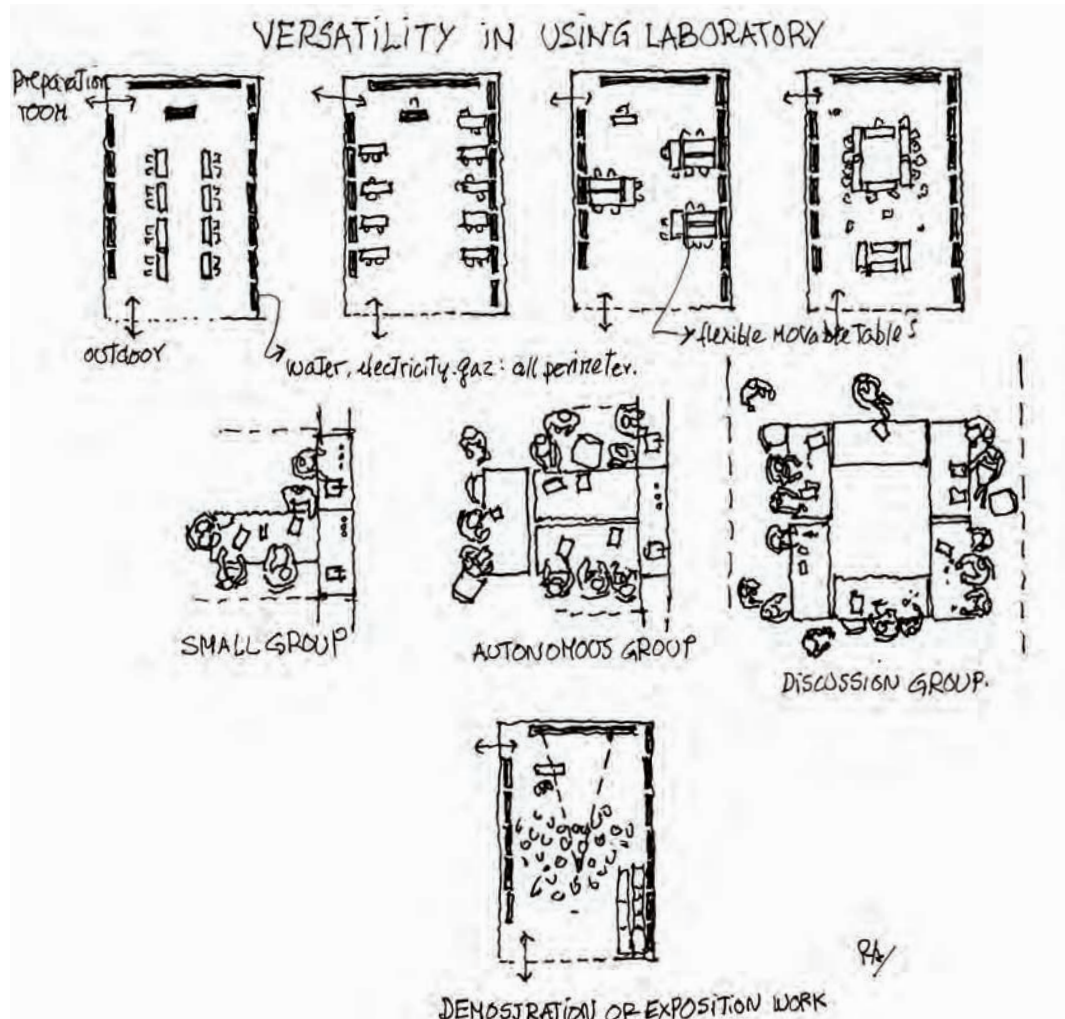


Figure A3 ■ Versatile science laboratories, Portugal

Source: Design guidelines by Parque Escolar, Portugal. Drawing by R. Almeida.

Country	No. of students	m <sup>2</sup> /student	Total area (m <sup>2</sup> )	Observations
<b>Argentina</b>				
Classroom	25 - 28 max	1.60 minimum and 1.80 recommend	50	
<b>Australia</b>				
Classroom (primary)	24 - 26	2.50	55 - 60	Plus associated work areas and storage space and outdoor learning space
Classroom (lower secondary)	28 - 30	2.15	55 - 60	Plus associated work areas and storage space
Laboratory	18 - 22	3.33	60	Plus preparation and storage areas shared by two science labs
<b>Brazil</b>				
Classroom	30	1.73	51.84	
<b>Italy</b>				
Classroom (primary)	25	1.80	45	
Classroom (secondary)	25	1.96	49	
Laboratories	25	1.80 minimum	45	Humanities disciplines
Laboratories	25	3.60 minimum	90	Technical disciplines
<b>Ireland</b>				
Classroom	30	2.67	80	Including 2 toilets inside
Laboratories	30	3.27	98	
<b>Portugal</b>				
Classrooms	25 - 28	2.50	50	When is used for a expositive lesson
Laboratories	25 - 28	2.50	50	When is used for experimental work
	14	5.71	80	
<b>Uruguay</b>				
Classroom (primary)	25	2.00	50	Full-time schools
Laboratories	25		45	Plus 25 m <sup>2</sup> for teacher preparation

Table A1 ■ Examples of classroom and laboratory sizes in different countries



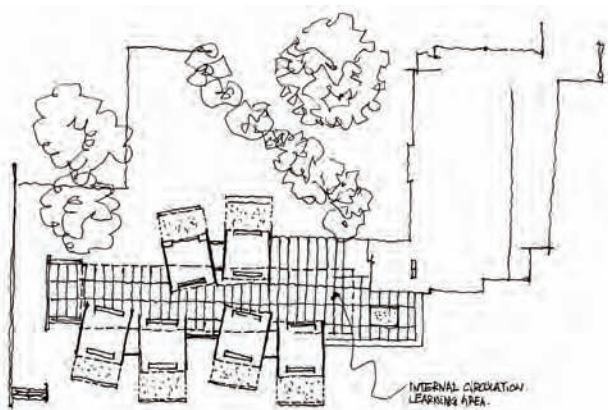
■ **Figure A4** ■ Versatile science laboratories, Albany Senior High School, Auckland, New Zealand

Source: *Designing for Education. Compendium of Exemplary Educational Facilities 2011*  
(Architects: Jasmx Ltd). Drawing by R. Almeida.



■ **Figure A5** ■ Versatile science laboratories, Glen Oak High School, United States

Architects Perkins & Will. Drawing by R. Almeida.



■ **Figure A6** ■ All spaces are educational, Project ETC No. 4, Artigas, Uruguay

Escuelas de Tiempo Completo en Uruguay, ANEP 2011  
(Architects: Archis. C. Sitya and M. Cecilio).  
Drawing by R. Almeida.

## DESIGNING THE SCHOOL AS A WHOLE

A school is a place which can be used by students, teachers and the community for learning, playing and socialising. All spaces are educational; not only classrooms and laboratories, but also circulation spaces, outdoor spaces, library, multipurpose and ICT rooms, kitchen, dining halls, etc.

It is important to design the whole site as the “learning environment” and to utilise all available spaces effectively. Corridor spaces, for example, whether internal or external, can provide outdoor learning areas or extensions of the classroom.



Figure A7 ■ Internal learning street, Te Matauranga School, Auckland, New Zealand

Source: *Compendium of Exemplary Educational Facilities, 3rd Edition* (Architects: DA, Ltd architect).

Drawing by R. Almeida.

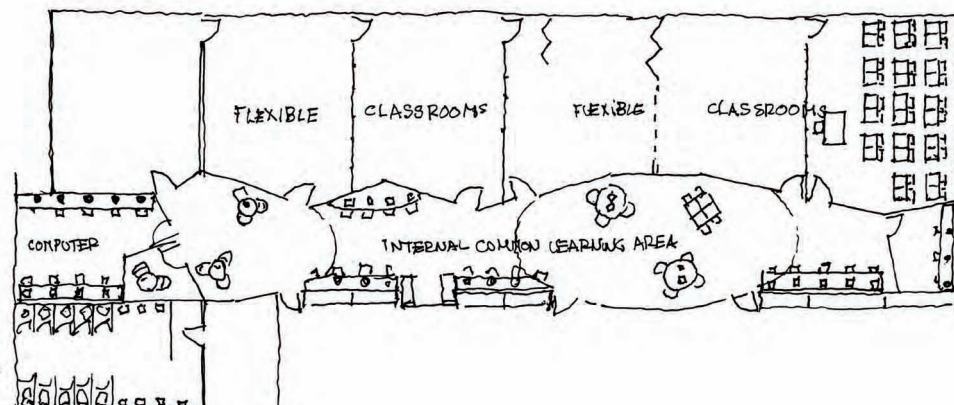


Figure A8 ■ Using circulation space as a learning area, part of North Wing Nazareth Catholic College, Flinders Park, Australia

Source: *Compendium of Exemplary Educational Facilities, 3rd Edition* (Architects: Russell & Yelland architects). Drawing by R. Almeida.

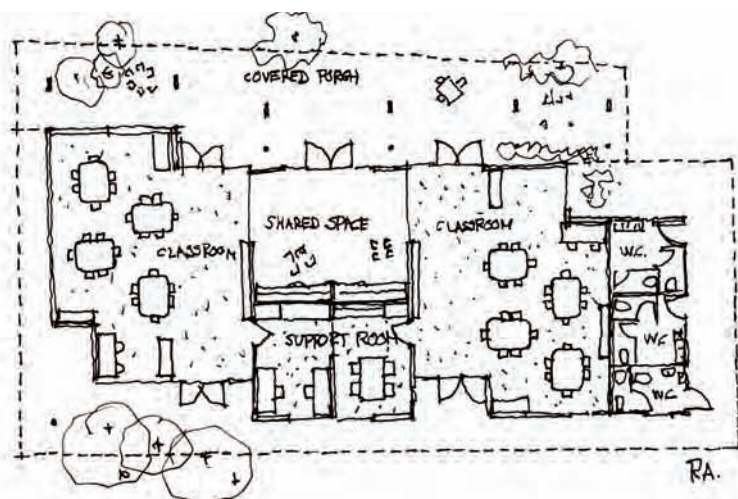


Figure A9 ■ Combining circulation spaces to obtain a shared space, Snells Beach School, New Zealand

Source: *Compendium of Exemplary Educational Facilities, 3rd Edition* (Architects: Brewer Davidson architects).

Drawing by R. Almeida.

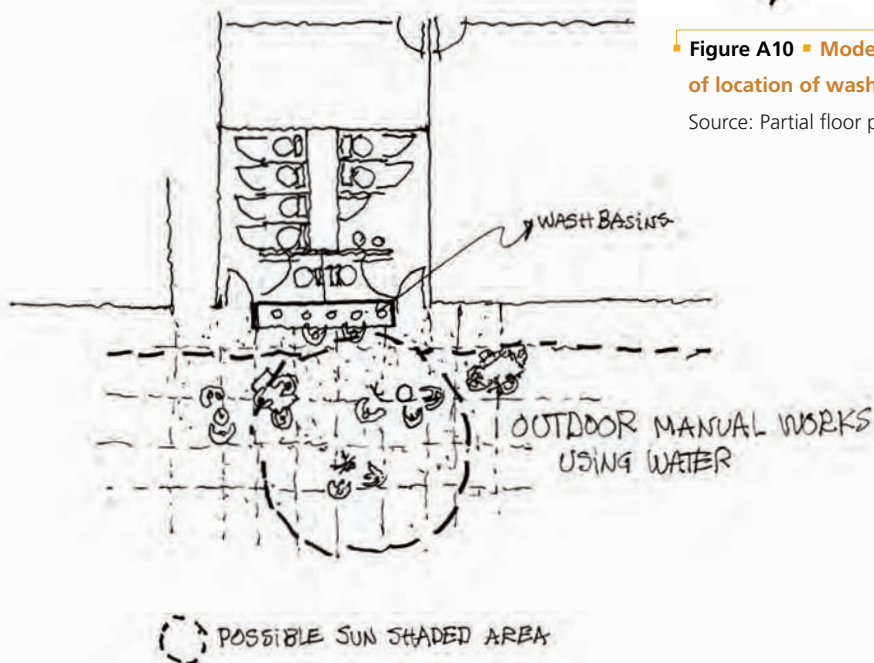
## CREATION OF OUTDOOR LEARNING AND PLAY AREAS

Relating indoor and outdoor spaces is another critical aspect of school design, such that the school community can take advantage and remain protected from the climate. Outdoor spaces can be used for a variety of school and community purposes. Flexible design guidelines can be developed to enable designs to be adapted to each specific context, in terms of climate and materials including the provision of sun-shaded areas. INIFED in its BSP has redesigned the sanitary blocks with the washbasins on the exterior, thus providing an excellent opportunity for using the space for artwork, ceramics, or any activity involving water.



■ **Figure A10** ■ Model of an upgraded sanitary block: taking advantage of location of washbasins

Source: Partial floor plan of a BSP school in Oaxaca. Drawing by R. Almeida.



■ **Figure A11** ■ Model of an upgraded sanitary block: taking advantage of location of washbasins

Source: Partial floor plan of a BSP school in Oaxaca. Drawing by R. Almeida.



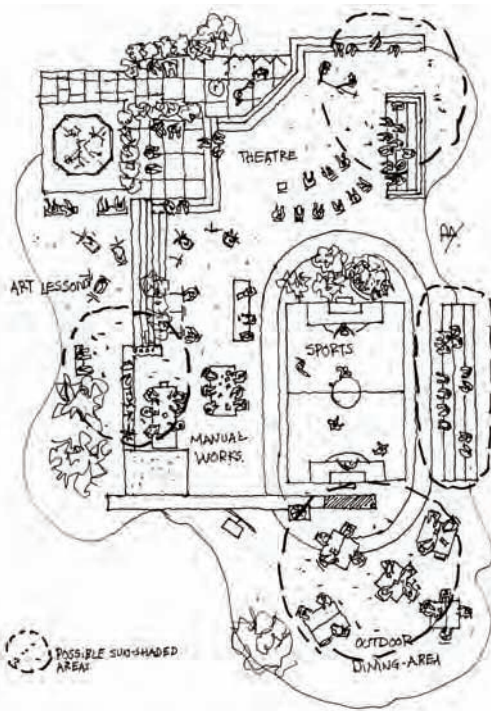
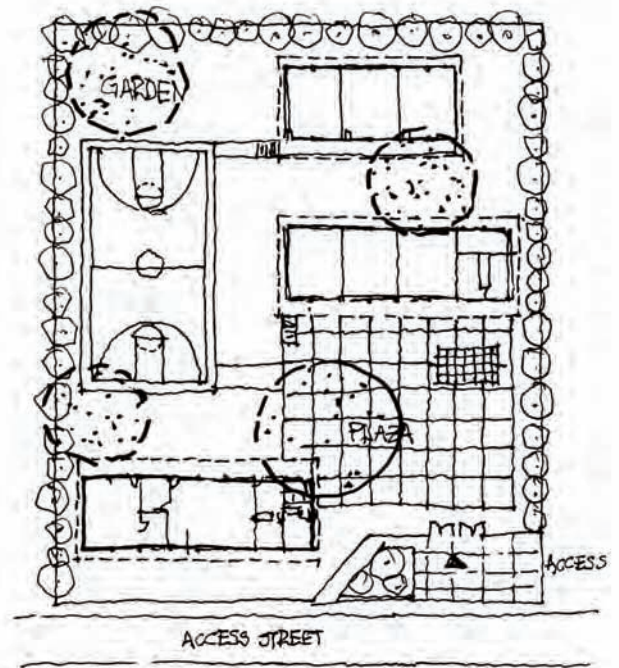


Figure A12 ■ Outdoor learning and play areas: locating sun-shaded areas

Adapted from Guía de Diseño de Espacios Educativos, UNESCO. Drawing by R. Almeida.



POSSIBLE SUN-SHADED AREAS.

Figure A13 ■ Providing sun-shaded areas for outdoor learning: an example of a INIFED model site layout

Drawing by R. Almeida.

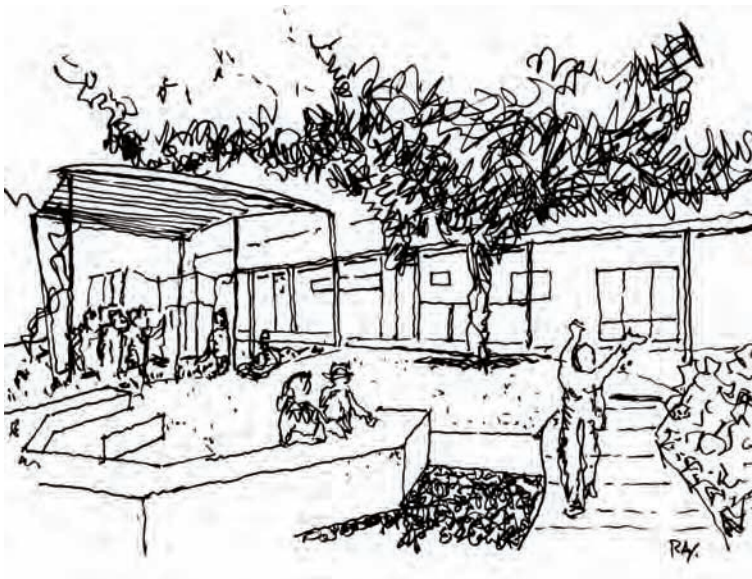


Figure A14 ■ Outdoor learning and play area with sun-shaded roof

School building in South Australia. Drawing by R. Almeida.

## ANNEX B1. OECD/CELE REVIEW TEAM

**Alastair Blyth** is a policy analyst at the OECD Centre for Effective Learning Environments. Since joining the OECD in August 2007, he has worked on activities related to spaces and places for higher education, and innovative and sustainable physical learning environments. He has led country policy reviews on national infrastructure, in addition to leading international surveys on the effects of the economic crisis on educational facilities and CELE's flagship publication *Designing for Education: Compendium of Exemplary Educational Facilities 2011*. As a qualified architect from the UK, Alastair has worked on a range of school building projects. He is co-author of a book on *Managing the Brief for Better Design* (2nd ed), and as a consultant focused on the development of the brief for the buildings in collaboration with clients and stakeholders, and the design team. Previously he held a teaching and research post at the University of Westminster, visiting teaching fellow at the University of Dundee, Scotland, and worked as a consultant for the UK Design Council.

**Rodolfo Almeida** is an architect and director of the Division of Architecture at the International Centre for Prospective and Higher Studies (CIPAE), Puebla, Mexico. He is also an international consultant on architecture for education for UNESCO and other national and international agencies. Rodolfo has worked with other governments including Bhutan, Guatemala, Haiti, Iran, Mexico, Mozambique, Portugal and Saudi Arabia. Between 1971 and 1997, Rodolfo was an architect in the Architecture for Education Unit at UNESCO, and later became Director of the Unit. While at UNESCO he worked in the field in more than 90 countries in all aspects of research, planning, training, design and management of large-scale construction of educational buildings programmes. He was in charge of coordinating UNESCO's activities in this field in the various Regional Offices of UNESCO. Rodolfo was Director-General of the Regional School Building Centre for Latin America and the Caribbean (CONESCAL), Mexico. He is member of the Work Programme Educational and Cultural Spaces of the UIA, and scientific advisor at the School of Architecture, Grenoble in France.

**David Forrester** is a senior international consultant specialising in the development, reform and evaluation of education systems in countries including Egypt, sub-Saharan Africa, India, Qatar, St Helena and Portugal, as well as the UK. Prior to that, he had over 20 years prior experience as a senior civil servant in a range of UK Government Departments: Education and Employment, Trade and Industry and H.M. Treasury. At key points, he has had been responsible for developing and implementing policy in England on: school, college, public sector higher education and lifelong learning recurrent and capital funding systems; the creation of the self-governing school and college sectors; school and college standards; and qualifications and quality agendas, including introduction of the national curriculum testing and associated accountability regime, built around Ofsted inspections and intervention in failing schools and colleges.

**Ann Gorey** has a background in education as a teacher, deputy principal, education administrator, school council board member and researcher. She has practical experience in teaching, education policy development and implementation of educational building programmes. Ann has been involved in educational facility planning and management through her work with the Government of South Australia,

as a Board member of the Council of Educational Facilities Planning (CEFPI) and through her planning and research company established in 2011. Work undertaken includes research into public private partnerships, participation in a review of school planning in Ireland and into the modernisation of schools in Portugal, and planning for the early years of learning. Currently she is undertaking research into ways in which ICT is changing the places and ways in which learning takes place, the impact of the built environment on learning, and ways to enhance learning through school and home collaboration.

**Juan Jose Chávez Zepeda** is a psychologist with a Masters in Educational Administration. He has undertaken post-graduate studies in research sciences in Guatemala as well as a multinational course in Development, Implementation and Evaluation of Educational Projects at the University of Brasilia, Brazil. He has headed various departments related to research, planning and statistics at the Ministry of Education and at the University of San Carlos de Guatemala. He was also a research associate of the OAS in Buenos Aires, Argentina; consultant for the evaluation of Secondary Education for the Ministry of Education, Quito, Ecuador; and UNESCO consultant for the evaluation of non-formal initial education in Mexico. He authored the Methodological Proposal for Evaluation of Teachers. He was professor of statistics, evaluation and research at the University of San Carlos and also at private Universities in Guatemala. He has taught Quantitative and Qualitative Research courses at CIPAE-Puebla, México, and has lectured at various universities in Central America, Mexico and Spain. He is currently director of *Módulos de Autoaprendizaje*. He has published several texts, mainly in research and evaluation.

## ANNEX B2. PROGRAMME OF THE REVIEW VISIT AND PEOPLE INTERVIEWED

During the review visit, the Review Team met the following groups and individuals.

### INIFED

- Ernesto Velasco León, Director General
- Execatl Ramírez Gutiérrez, Administrative Subdirection
- Juan Enrique Mejía Rojo, Technical Subdirection
- Ernesto León Calderón, Manager, Building Management and Works Supervision
- José Luis García Santoveña, Manager, Material Resources Management
- Enrique Emmanuel Orihuela Arriaga, Manager, Quality, Formation and Certification Management
- María Leticia Enriquez Cruz, Manager, Human Resources Management
- Marcela León Reguera, Manager, Programming, Management and Technical Evaluation
- Emilio Antonio Mateo Galguera, Manager, Projects Management

### SECRETARIAT OF PUBLIC EDUCATION (SECRETARÍA DE EDUCACIÓN PÚBLICA)

- Héctor Ortiz Polo, Deputy Director General, Executive Co-ordination Unit (*Unidad de Coordinación Ejecutiva*)
- Noemí García García, Director General of Curriculum Development (*Dirección General De Desarrollo Curricular*)
- Alma Lucia Juarez Ortega, Secretary of Public Education Advisors Co-ordination (*Coordinación De Asesores Del Secretario De Educación Pública*)
- Adrián Fernández Cabrera, Coordinador, Federal Services Offices of Support to Education (*General de Oficinas de Servicios Federales de Apoyo a la Educación, OSFAE*)
- Jesús René Quiñones Ceballos, Evaluator, OSFAE
- Dr. Eleuterio Zamanillo Noriega, Executive Head of the OSFAE in Querétaro

## GOVERNMENT OFFICIALS

### YUCATAN

- José Manuel Cabrera Uribe, Director of Planning, SEP, Yucatan
- Omar Salas, Head of Department of Construction and Supervision, SEP, Yucatan
- Alejandra Garrido, Head of OSFAE, Yucatan
- Gonzalo Ayora, Area Finance Manager, OSFAE

### OAXACA

- Hilario Aquino Zuñiga, OSFAE representative
- Enrique Gomez Migoya, Technical Secretary, State Institute of Public Education, Oaxaca

## SCHOOLS

In addition to general visits to the schools listed below, the Review Team had meetings with presidents of OPSE, other parents where possible, school principals and INIFED co-ordinators. On two occasions, the Review Team spoke with school supervisors. See Annex B3 for the summary of the school visits.

### MEXICO DF

- Mexico Olimpico (kindergarten)
- Esperanza Villasana Heredia (primary school)
- Amistad Mundial (primary school)
- Professor Fernando Brom Rojas, Coyoacan (primary school)
- Niger, Tlalpan (primary school)
- Miguel Aleman (primary school)
- Centro de Atencion Multiple 83, Venustiano Carranza (special needs school)

### PUEBLA

- Viezca Ramirez (primary school)
- Jose Maria Morelos (primary school)

**OAXACA**

- Elena Adams Keller (kindergarten)
- Artículo 3rd Constitucional, Los Ocotoes (primary school)
- Guillermo Prieto, Praxedis de Guerrero (primary school)
- Independencia, Agua El Spino (primary school)
- José Vasconcelos, Oaxaca de Juarez, (lower secondary)
- Francisco J Mujica (primary school)
- Telesecundaria, S Maria Atzompa (lower secondary)
- Telesecundaria, S Felipe Tejalopam (lower secondary)

**YUCATAN**

- Rayitos de Sol, Merida (kindergarten)
- Felipe Carrillo Puerto, Cacao (kindergarten)
- Agustin Franco Villanueva, Merida (primary school)
- Heroes de Mexico, Pixya (primary school)

## ANNEX B3. SUMMARY OF SCHOOLS VISITED BY THE REVIEW TEAM AND THE WORK CARRIED OUT UNDER THE BSP

### PRE-PRIMARY SCHOOLS

<b>School</b>	Escuela Rayitos de Sol
<b>Location</b> (urban, rural, suburban)	Merida, <b>Yucatan</b> (urban)
<b>Student enrolment</b>	169
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	✓
▪ Lighting only	
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	✓
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	548
<b>Post-project activity by parents</b> Parents are actively involved and especially concerned about road traffic safety and potable water.	
<b>Review Team observations</b> Mobile classrooms were brought in due to increasing enrolments. Improvements are good but further work will need to be done.	

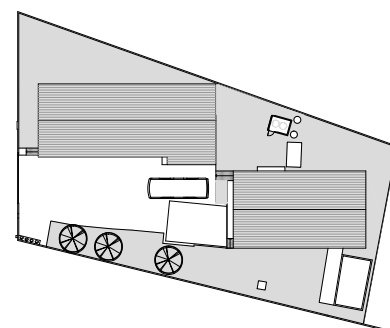


Figure B3.1 ■ Escuela Rayitos de Sol

From top to bottom

Photo 1: plan of school. © INIFED

Photo 2: before the BSP project. © INIFED

Photo 3: after the BSP project. © INIFED

Photo 4: new drinking water fountain. © R. Almeida

<b>School</b>	<b>Escuela Felipe Carrillo Puerto</b>
<b>Location</b> (urban, rural, suburban)	Merida, <b>Yucatan</b> (urban)
<b>Student enrolment</b>	19
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	✓
▪ Lighting only	
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	✓
▪ Boundary walls / fences	✓
<b>Cost (K MXN)</b>	530
<b>Post-project activity by parents</b> No teachers or parents were able to meet with us as we arrived after 11.00 am.	
<b>Review Team observations</b> Only one classroom on a large site. This has been brought up to a very good standard but it only operates from 7.00 to 11.00 am.	



■ **Figure B3.2** ■ **Escuela Felipe Carrillo Puerto**

Top: a classroom block before repair. © INIFED

Bottom: after repair. © R. Almeida



<b>School</b>	Elena Adams Keller
<b>Location</b> (urban, rural, suburban)	San Raymundo Jalpan, Oaxaca (urban)
<b>Student enrolment</b>	80
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	✓
▪ Lighting only	
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	
▪ New works	
▪ Balconies, walkways and hard play area	✓
▪ Boundary walls / fences	✓
<b>Cost (K MXN)</b>	
<b>Post-project activity by parents</b> Parents help maintain the kindergarten and keep it in good condition.	
<b>Review Team observations</b> The kindergarten is well kept. There is excellent cooperation between parents, principal and the contractor who did additional work for them. Wide paved area outside toilets can be used for art.	



### Figure B3.3 ■ Elena Adams Keller

From top to bottom

Photo 1: the roof before repair. © INIFED

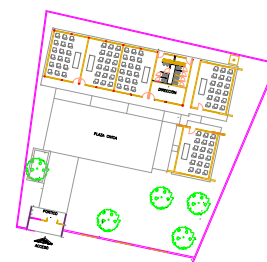
Photo 2: the roof after repair. © INIFED

Photo 3: new covered area. © R. Almeida

Photo 4: wash hand basins outside the toilets with a paved area that can be used for art classes.

© R. Almeida

Photo 5: plan of school. © INIFED



<b>School</b>	<b>Escuela Mexico Olimpico</b>
<b>Location</b> (urban, rural, suburban)	Balbuena, Venustiano Carranza, <b>Mexico DF</b> (urban)
<b>Student enrolment</b>	237 (actual NOR is 263/253)
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	✓
▪ Lighting only	
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	
▪ New works	
▪ Balconies, walkways and hard play area	✓
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	591
<b>Post-project activity by parents</b>	
The parents' association, established long before the OPSE, has "always supported the school". Post BSP, there is now a School Council with 8 committees and annual book sales. Parents "take care of certain areas of school".	
<b>Review Team observations</b>	
A beautifully designed school with lots of differentiated indoor/outdoor spaces for learning and constructive play, set in gated semi-urban community. A well conceived refurbishment project after "15 years of neglect". Teachers noted that they feel safer after the refurbishment. The roofing has an 8-year warranty.	



■ **Figure B3.4** ■ **Escuela Mexico Olimpico**

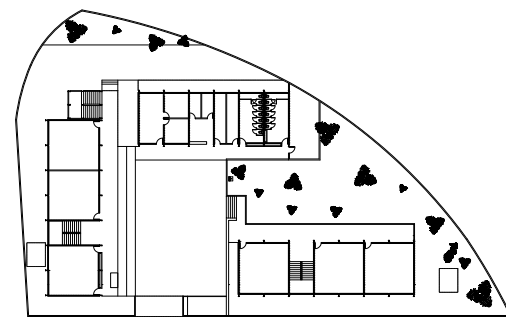
From top to bottom:

Photo 1: broken planters in courtyard. © INIFED

Photo 2: planters after repair. © Alastair Blyth

Photo 3: example of outdoor education spaces. © Alastair Blyth

<b>School</b>	<b>Esperanza Villasana Heredia</b>
<b>Location</b> (urban, rural, suburban)	José Maria Pino Suarez, Alvaro Obregon, <b>Mexico DF</b> (urban)
<b>Student enrolment</b>	358
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	
▪ Lighting only	
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	✓
▪ New works	✓
▪ Balconies, walkways and hard play area	✓
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	583
<b>Post-project activity by parents</b>	Parents are highly motivated by the improvements to health, safety and general condition but they may need help to realise ongoing projects.
<b>Review Team observations</b>	This school needed a lot of work and requires further work. Other than work requiring significant capital expenditure, there are some possible low-costs opportunities available to the school, for example, by developing some external garden areas that could be used for play, and planting in derelict areas to provide recreation and educational spaces. Such requirements could be made a condition of the BSP.



■ **Figure B3.5** ■ **Esperanza Villasana Heredia**

From top to bottom:

Photo 1: plan of school. © INIFED

Photo 2: before refurbishment. © INIFED

Photo 3: after refurbishment. © R. Almeida

PRIMARY SCHOOLS

<b>School</b>	<b>Amistad Mundial</b>
<b>Location</b> (urban, rural, suburban)	Molino de Rosas, Alvaro Obregon, <b>Mexico DF</b> (urban)
<b>Student enrolment</b>	361
<b>Remedial work carried out</b>	
▪ Health and sanitation	
▪ Roofing and waterproofing	
▪ Electrics	
▪ Lighting only	✓
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	
▪ Boundary walls / fences	✓
<b>Cost (K MXN)</b>	515
<b>Post-project activity by parents</b> Parents are pleased with the work completed and are motivated to make ongoing improvements.	
<b>Review Team observations</b> The school has been improved with new windows and lighting. Graffiti and painting has been removed.	



Figure B3.6 ■ Amistad Mundial

From top to bottom:

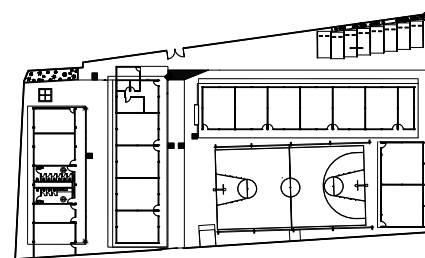
Photo 1: entrance to school before the BSP project. © INIFED

Photo 2: after refurbishment. © Alastair Blyth

Photo 3: after refurbishment. © R. Almeida

Photo 4: plan of school. © INIFED

<b>School</b>	<b>Prof. Fernando Brom Rojas</b>
<b>Location</b> (urban, rural, suburban)	Alianza Popular Revolucionaria, Coyoacan, <b>Mexico DF</b> (suburban)
<b>Student enrolment</b>	307 (plus a similar size school from 2pm)
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	
▪ Lighting only	✓
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	
▪ Boundary walls / fences	✓
<b>Cost (K MXN)</b>	985
<b>Post-project activity by parents</b>	
The school has made use of community contacts to extend and improve its facilities and equipment, e.g. Japanese embassy, Wal-Mart Foundation, Science body.	
<b>Review Team observations</b>	
There is a strong parent interest in the school but a number of projects need to improve the school, particularly the external areas. Some of the spaces between the buildings could be planted and utilised as play or educational spaces.	



**Figure B3.7** ■ Prof. Fernando Brom Rojas

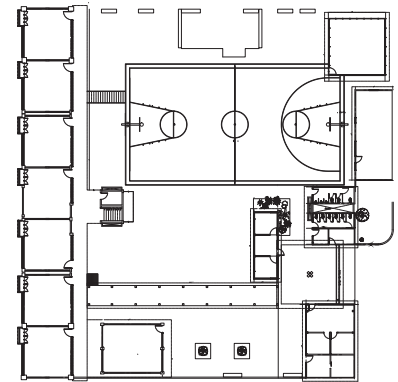
From top to bottom:

Photo 1: plan of school. © INIFED

Photo 2: before refurbishment. © INIFED

Photo 3: after refurbishment. © R. Almeida

<b>School</b>	<b>Niger</b>
<b>Location</b> (urban, rural, suburban)	Narciso Mendoza, Tlalpan, <b>Mexico DF</b> (suburban)
<b>Student enrolment</b>	488
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	
▪ Lighting only	
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	✓
▪ New works	✓
▪ Balconies, walkways and hard play area	
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	959
<b>Post-project activity by parents</b> Students come to this school from outside the immediate area. Grandparents are involved. The OPSE and principal are working on a plan for ongoing building improvements.	
<b>Review Team observations</b> To keep the contract within agreed price, parents painted walls with paint provided by contractor. The school is interesting because it is located within the community and accessed by small, local streets. The caretaker does not allow out of hours use of the school. The science laboratory, financed by local industry, was recently converted at the city's expense into a computer laboratory.	



■ **Figure B3.8** ■ **Escuela Niger**

From top to bottom:

Photo 1: plan of school. © INIFED

Photo 2: before refurbishment. © INIFED

Photo 3: after refurbishment. © R. Almeida

<b>School</b>	<b>Agustin Franco Villanueva</b>
<b>Location</b> (urban, rural, suburban)	Santa Gertrudis Copo, Merida, Yucatan (rural)
<b>Student enrolment</b>	80 each in AM and PM
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	
▪ Lighting only	
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	✓
▪ New works	✓
▪ Balconies, walkways and hard play area	
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	389
<b>Post-project activity by parents</b>	Parents, whose local language is Mayan, are very positive. They reported that their “priorities were all met” and are engaged with school, with a rota of cleaning and other tasks.
<b>Review Team observations</b>	The contract was made with the OPSE of the afternoon school. The BSP project included some of the play area but left part of the external landscape looking derelict. There may be a relatively inexpensive opportunity to plant and use the area as part of the educational spaces.



■ **Figure B3.9** ■ **Agustin Franco Villanueva**

From top to bottom:

Photo 1: plan of buildings in the school grounds. © INIFED

Photo 2: toilet block before refurbishment. © INIFED

Photo 3: toilet block after refurbishment. © INIFED

Photo 4: classroom block after refurbishment. © Alastair Blyth

<b>School</b>	<b>Héroes de Mexico</b>
<b>Location</b> (urban, rural, suburban)	Pixya, Tecoh, <b>Yucatan</b> (rural)
<b>Student enrolment</b>	149
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	
▪ Lighting only	✓
▪ Floors and ceilings	
▪ Fenestration	✓
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	✓
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	989
<b>Post-project activity by parents</b>	
The children speak Mayan although all classes are held in Spanish. The parents contribute time and money to maintain the school.	
<b>Review Team observations</b>	
Installation of drinking water and ramps for disabled access were key elements of project, although the school would provide a good example to other communities about how to make use of external planted areas. The contractor was from a neighbouring state. The project has stimulated interest from within the rest of the community. It was not possible to see whether the external areas were used for any educational purpose.	



■ **Figure B3.10** ■ **Héroes de Mexico**

From top to bottom:

Photo 1: during refurbishment. © INIFED

Photo 2: classroom blocks after refurbishment. © Alastair Blyth

Photo 3: classroom blocks after refurbishment. © Alastair Blyth



School	Articulo 3rd Constitucional
<b>Location</b> (urban, rural, suburban)	Los Ocotoes, Heroica Ciudad de Ejutla de Crespo, <b>Oaxaca</b> (rural)
<b>Student enrolment</b>	75
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	
▪ Lighting only	
▪ Floors and ceilings	
▪ Fenestration	✓
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	✓
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	537
<b>Post-project activity by parents</b> Parents now contribute to cleaning and running costs of school (e.g. buying materials).	
<b>Review Team observations</b> The double shift operating at the school is creating tensions between parent bodies.	



■ **Figure B3.11** ■ **Articulo 3rd Constitucional**

From top to bottom:

Photo 1: before main classroom block refurbishment. © INIFED

Photo 2: after refurbishment. © INIFED

Photo 3: after refurbishment. © Alastair Blyth

Photo 4: after refurbishment. © Alastair Blyth

<b>School</b>	<b>Guillermo Prieto</b>
<b>Location</b> (urban, rural, suburban)	Praxedis de Guerrero, <b>Oaxaca</b> (rural)
<b>Student enrolment</b>	144 in morning, 150 in afternoon
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	✓
▪ Lighting only	
▪ Floors and ceilings	
▪ Fenestration	✓
▪ Painting	
▪ New works	
▪ Balconies, walkways and hard play area	
▪ Boundary walls / fences	✓
<b>Cost (K MXN)</b>	600
<b>Post-project activity by parents</b>	
The parents' association, which existed previously, had contributed to the running costs of school, e.g. buying water (necessary here) and materials, or equipping an IT room. Parents reported that "we are always looking for support from the municipality but it never comes".	
<b>Review Team observations</b>	
The INIFED contract was made with the OPSE of the morning school, who did not see wish to consult parents of afternoon school.	



■ **Figure B3.12** ■ **Guillermo Prieto**

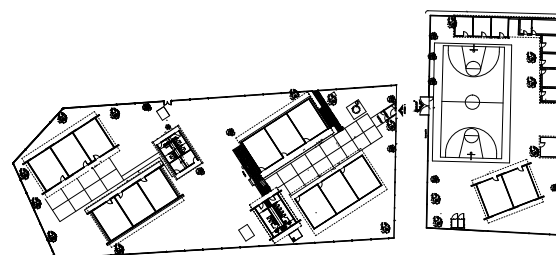
From top to bottom:

Photo 1: before refurbishment. © INIFED

Photo 2: after refurbishment. © Alastair Blyth

Photo 3: after refurbishment. © Alastair Blyth

School	Independencia
<b>Location</b> (urban, rural, suburban)	Agua Del Espino, La Campaña, <b>Oaxaca</b> (rural)
<b>Student enrolment</b>	202 (as observed =179)
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	✓
▪ Lighting only	
▪ Floors and ceilings	
▪ Fenestration	✓
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	550
<b>Post-project activity by parents</b>	
Parents had been involved in the school before, through for example the anti-bullying initiative. Parents are contributing more by providing technical skills to search for water and initiating a new flooring project.	
<b>Review Team observations</b>	
A drinking water system was installed. Parents are concerned that it is now a “nice” school and will attract too many students: there is “no room for more”. The contractor was based only 20 minutes from the school, which presented no problems.	



#### Figure B3.13 ■ Independencia

From top to bottom:

Photo 1: plan of school. © INIFED

Photo 2: before refurbishment. © INIFED

Photo 3: after refurbishment. © Alastair Blyth

<b>School</b>	<b>Viezca Ramirez</b>
<b>Location</b> (urban, rural, suburban)	<b>Puebla</b> (rural)
<b>Student enrolment</b>	198
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	
▪ Lighting only	
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	509
<b>Post-project activity by parents</b> Parents are involved and would like to do more.	
<b>Review Team observations</b> The structural work has been done and buildings made safe, but there is a lack of shade and areas for play.	



■ **Figure B3.14** ■ **Viezca Ramirez**

From top to bottom:

Photo 1: plan of school. © INIFED

Photo 2: after refurbishment. © R. Almeida

Photo 3: after refurbishment. © R. Almeida

<b>School</b>	José Maria Morelos
<b>Location</b> (urban, rural, suburban)	Puebla (rural)
<b>Student enrolment</b>	356
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	
▪ Lighting only	
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	✓
▪ New works	✓
▪ Balconies, walkways and hard play area	✓
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	501
<b>Post-project activity by parents</b> Municipality works are also underway.	
<b>Review Team observations</b> New works include a toilet block. Opportunities could be taken to provide shaded areas outside classrooms.	



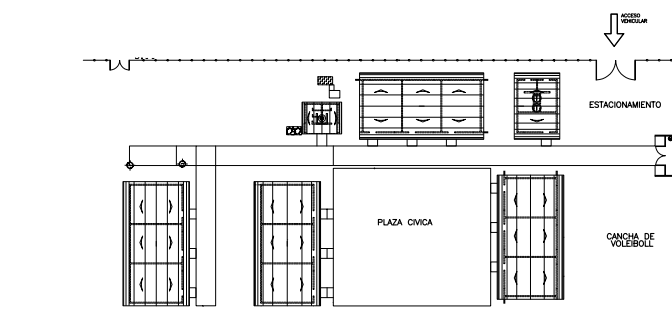
Figure B3.15 José Maria Morelos

From top to bottom:

Photo 1: classroom blocks. © R. Almeida

Photo 2: toilet block after refurbishment. © Alastair Blyth

Photo 3: plan of school. © INIFED



<b>School</b>	<b>Presidente Miguel Aleman</b>
<b>Location</b> (urban, rural, suburban)	<b>Mexico DF</b> (urban)
<b>Student enrolment</b>	
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	✓
▪ Lighting only	
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	✓
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	509
<b>Post-project activity by parents</b> Parents are negotiating to replace the outdoor shade structure, which was damaged by a recent earthquake.	
<b>Review Team observations</b> This school demonstrates how work can be done effectively. There are didactic graphics in corridors and on ceilings with bright colours. Toilets are excellent. It also has a hydroponic garden.	



■ **Figure B3.16** ■ **Presidente Miguel Aleman**

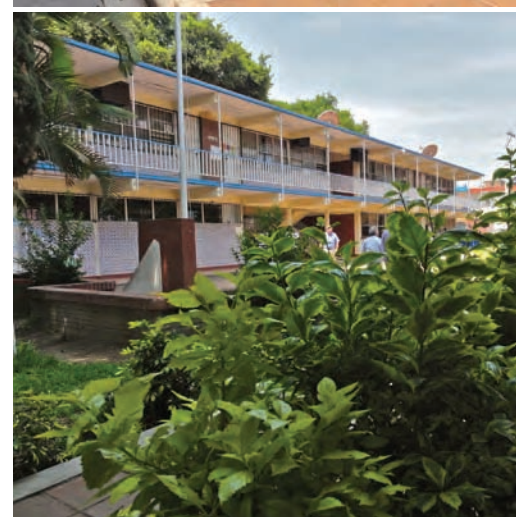
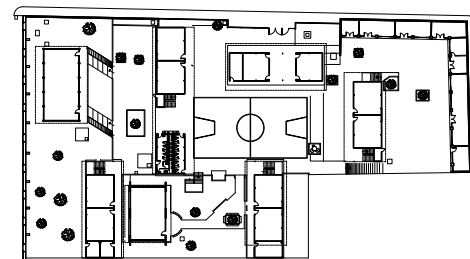
From top to bottom:

Photo 1: after refurbishment. © R. Almeida

Photo 2: after refurbishment. © R. Almeida

Photo 3: hydroponic garden. © R. Almeida

<b>School</b>	<b>Francisco J Mujica</b>
<b>Location</b> (urban, rural, suburban)	Oaxaca de Juarez, <b>Oaxaca</b> (urban)
<b>Student enrolment</b>	638
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	
▪ Electrics	✓
▪ Lighting only	
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	✓
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	500
<b>Post-project activity by parents</b>	
There is a strong parent/ community interest in this well established and well maintained school.	
<b>Review Team observations</b>	
The school is 52 years old but has a good design with indoor/outdoor areas, gardens, trees, local tiles, potable water and seismic reinforcement.	



■ **Figure B3.17** ■ **Francisco J Mujica**

From top to bottom:

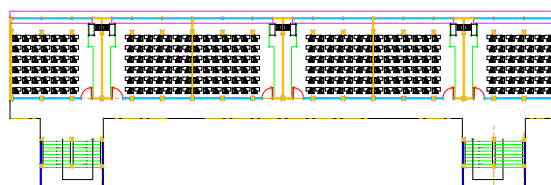
Photo 1: plan of school. © INIFED

Photo 2: after refurbishment. © R. Almeida

Photo 3: after refurbishment. © R. Almeida

## LOWER SECONDARY SCHOOLS

<b>School</b>	José Vasconcelos
<b>Location</b> (urban, rural, suburban)	Oaxaca de Juarez, <b>Oaxaca</b> (rural)
<b>Student enrolment</b>	198
<b>Remedial work carried out</b>	
▪ Health and sanitation	
▪ Roofing and waterproofing	✓
▪ Electrics	✓
▪ Lighting only	
▪ Floors and ceilings	
▪ Fenestration	
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	951
<b>Review Team observations</b>	
Laboratories had fixed benches. The administration building has a shaded area that could be used for education purposes.	



■ **Figure B3.18** ■ José Vasconcelos

From top to bottom:

Photo 1: before refurbishment. © INIFED

Photo 2: after refurbishment. © Alastair Blyth

Photo 3: after refurbishment. © R. Almeida

Photo 4: plan of school. © INIFED



<b>School</b>	Telesecundaria Sta Maria Atzompa
<b>Location</b> (urban, rural, suburban)	Oaxaca (rural)
<b>Student enrolment</b>	219
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	✓
▪ Lighting only	
▪ Floors and ceilings	
▪ Fenestration	
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	✓
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	802
<b>Post-project activity by parents</b> A shaded outdoor area for spectators was added to the school, but the school would like to have another shaded area.	
<b>Review Team observations</b> There is good leadership in the school, with positive comments from teachers.	



■ **Figure B3.19** ■ Telesecundaria Santa Maria Atzompa

From top to bottom:

Photo 1: before refurbishment. © INIFED

Photo 2: after refurbishment © R. Almeida

Photo 3: shaded area overlooking sports ground. © R. Almeida

<b>School</b>	<b>Telesecundaria Guadalupe Hinojosa de Murat</b>
<b>Location</b> (urban, rural, suburban)	<b>Oaxaca</b> (rural)
<b>Student enrolment</b>	
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	✓
▪ Electrics	✓
▪ Lighting only	
▪ Floors and ceilings	
▪ Fenestration	
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	✓
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	523
<b>Review Team observations</b>	
There is a large courtyard but a lack of shade and no pleasant outdoor areas.	
The school has families returning to Mexico and who are being reintegrated.	



■ **Figure B3.20** ■ **Telesecundaria Guadalupe Hinojosa de Murat**

From top to bottom:

Photo 1 to 3: after refurbishment. © R. Almeida

## SPECIAL NEEDS SCHOOLS

<b>School</b>	<b>Centro de Atencion Múltiple 83</b>
<b>Location</b> (urban, rural, suburban)	Jardin Balbuena, Venustiano Carranza, <b>Mexico DF</b> (urban)
<b>Student enrolment</b>	Approx.250 (120 full-time)
<b>Remedial work carried out</b>	
▪ Health and sanitation	✓
▪ Roofing and waterproofing	
▪ Electrics	✓
▪ Lighting only	
▪ Floors and ceilings	✓
▪ Fenestration	✓
▪ Painting	✓
▪ New works	
▪ Balconies, walkways and hard play area	
▪ Boundary walls / fences	
<b>Cost (K MXN)</b>	742
<b>Post-project activity by parents</b>	
The parents' association is well established, and special education officials in Mexico City are very engaged and supportive. The student group identified WCs as a priority.	
<b>Review Team observations</b>	
The most innovative part of project were the toilets, which were included in each classroom. Attractive planting was used to soften the urban environment.	



■ **Figure B3.21** ■ **Centro de Atencion Múltiple 83**

From top to bottom:

Photo 1: before refurbishment. © INIFED

Photo 2: after refurbishment. © Alastair Blyth

Photo 3: after refurbishment. © Alastair Blyth

## ANNEX B4. NUMBER OF INDIVIDUAL ACTIONS (PROJECTS), TOTAL INVESTMENT, JOBS GENERATED AND STUDENTS BENEFITTING FROM THE BETTER SCHOOLS PROGRAMME, BY STATE (2008-12)

### 2008

No.	State	No. actions	Investment (MXN million)	* Jobs generated	* Students benefitted
1	AGUASCALIENTES	52	26.13	1 300	15 406
2	BAJA CALIFORNIA	53	22.95	1 325	15 702
3	BAJA CALIFORNIA SUR		-	-	-
4	CAMPECHE	83	41.94	2 075	24 590
5	COAHUILA		-	-	-
6	COLIMA	22	10.45	550	6 518
7	CHIAPAS	224	84.23	5 600	66 364
8	CHIHUAHUA		-	-	-
9	DISTRITO FEDERAL	566	230.36	14 150	167 688
10	DURANGO	111	47.97	2 775	32 886
11	GUANAJUATO	170	81.81	4 250	50 366
12	GUERRERO	183	81.36	4 575	54 217
13	HIDALGO		-	-	-
14	JALISCO	146	64.23	3 650	43 255
15	MEXICO		-	-	-
16	MICHOACAN	70	30.72	1 750	20 739
17	MORELOS	39	20.07	975	11 554
18	NAYARIT		-	-	-
19	NUEVO LEON	203	91.78	5 075	60 142
20	OAXACA		-	-	-
21	PUEBLA		-	-	-

22	QUERETARO	39	14.16	975	11 554
23	QUINTANA ROO	70	34.82	1 750	20 739
24	SAN LUIS POTOSI	72	33.72	1 800	21 331
25	SINALOA		-	-	-
26	SONORA		-	-	-
27	TABASCO		-	-	-
28	TAMAULIPAS		-	-	-
29	TLAXCALA	30	13.05	750	8 888
30	VERACRUZ		-	-	-
31	YUCATAN	56	20.20	1 400	16 591
32	ZACATECAS		-	-	-
<b>TOTAL</b>		<b>2 189</b>	<b>949.94</b>	<b>54 725</b>	<b>648 530</b>

Table B4.1 The Better Schools Programme (2008)

## 2009

No.	State	No. actions	Investment (MXN million)	* Jobs generated	* Students benefited
1	AGUASCALIENTES	37	20.21	740	8 861
2	BAJA CALIFORNIA	106	62.93	2 123	25 385
3	BAJA CALIFORNIA SUR	20	11.60	400	4 790
4	CAMPECHE	44	25.70	880	10 537
5	COAHUILA	113	56.32	2 264	27 062
6	COLIMA	27	21.94	540	6 466
7	CHIAPAS	92	59.17	1 840	22 032
8	CHIHUAHUA	91	42.41	1 820	21 793

9	DISTRITO FEDERAL	298	139.63	5 940	71 126
10	DURANGO	103	63.60	2 060	24 667
11	GUANAJUATO	80	57.20	1 600	19 159
12	GUERRERO	118	65.07	2 360	28 259
13	HIDALGO	104	48.83	2 081	24 906
14	JALISCO	140	88.92	2 820	33 767
15	MEXICO	123	96.26	2 460	29 456
16	MICHOACAN	122	60.93	2 440	29 217
17	MORELOS	46	24.61	920	11 016
18	NAYARIT	126	65.20	2 520	30 175
19	NUEVO LEON	104	72.38	2 080	24 906
20	OAXACA	194	118.74	3 880	46 460
21	PUEBLA	70	32.57	1 400	16 764
22	QUERETARO	64	35.38	1 280	15 327
23	QUINTANA ROO	30	19.41	600	7 184
24	SAN LUIS POTOSI	40	19.27	800	9 579
25	SINALOA	118	55.85	2 360	28 259
26	SONORA	134	66.09	2 680	32 091
27	TABASCO	177	102.69	3 548	42 388
28	TAMAULIPAS	86	44.89	1 720	20 596
29	TLAXCALA	45	23.78	901	10 777
30	VERACRUZ	495	251.22	9 903	118 544
31	YUCATAN	24	11.33	480	5 748
32	ZACATECAS	58	33.59	1 160	13 890
<b>TOTAL</b>		<b>3 429</b>	<b>1 897.70</b>	<b>68 600</b>	<b>821 187</b>

■ Table B4.2 ■ The Better Schools Programme (2009)

## 2010

No.	State	No. actions	Investment (MXN million)	* Jobs generated	* Students benefitted
1	AGUASCALIENTES	46	27.41	920	13 828
2	BAJA CALIFORNIA	105	55.03	2 100	45 043
3	BAJA CALIFORNIA SUR	58	37.45	1 160	13 368
4	CAMPECHE	61	38.40	1 220	7 826
5	COAHUILA	178	83.21	3 560	28 967
6	COLIMA	52	29.42	1 040	11 783
7	CHIAPAS	238	133.95	4 760	22 056
8	CHIHUAHUA	217	96.24	4 340	90 292
9	DISTRITO FEDERAL	401	237.36	8 020	159 311
10	DURANGO	135	80.97	2 700	27 268
11	GUANAJUATO	136	78.41	2 720	37 671
12	GUERRERO	212	129.92	4 240	14 844
13	HIDALGO	97	57.36	1 940	18 528
14	JALISCO	222	113.50	4 440	18 528
15	MEXICO	201	115.03	4 020	50 796
16	MICHOACAN	169	96.46	3 380	32 312
17	MORELOS	80	48.00	1 600	17 248
18	NAYARIT	99	49.64	1 980	12 701
19	NUEVO LEON	159	98.50	3 180	39 726
20	OAXACA	103	59.99	2 060	25 496
21	PUEBLA	0	-	-	-
22	QUERETARO	50	25.87	1 000	10 129
23	QUINTANA ROO	61	39.90	1 220	11 355

24	SAN LUIS POTOSI	82	52.55	1 640	9 644
25	SINALOA	107	66.57	2 140	28 049
26	SONORA	84	59.05	1 680	13 806
27	TABASCO	121	79.73	2 420	17 718
28	TAMAULIPAS	72	40.11	1 440	18 333
29	TLAXCALA	55	33.34	1 100	20 286
30	VERACRUZ	180	94.36	3 600	30 511
31	YUCATAN	50	25.62	1 000	11 057
32	ZACATECAS	76	45.27	1 520	15 974
<b>TOTAL</b>		<b>3 907</b>	<b>2 228.64</b>	<b>78 140</b>	<b>874 454</b>

■ Table B4.3 ■ The Better Schools Programme (2010)

## 2011

No.	State	No. actions	Investment (MXN million)	* Jobs generated	* Students benefitted
1	AGUASCALIENTES	50	27.58	1 092	12 842
2	BAJA CALIFORNIA	81	42.67	1 769	18 282
3	BAJA CALIFORNIA SUR	51	27.20	1 114	12 450
4	CAMPECHE	50	27.49	1 092	8 444
5	COAHUILA	106	54.96	2 315	25 672
6	COLIMA	52	28.31	1 136	10 651
7	CHIAPAS	410	217.68	8 954	69 408
8	CHIHUAHUA	147	74.23	3 210	43 400
9	DISTRITO FEDERAL	300	162.43	6 552	107 597
10	DURANGO	129	69.75	2 817	19 476



11	GUANAJUATO	91	48.04	1 987	16 351
12	GUERRERO	203	109.57	4 434	29 268
13	HIDALGO	90	49.47	1 966	18 352
14	JALISCO	238	117.38	5 198	45 151
15	MEXICO	180	95.22	3 931	49 352
16	MICHOACAN	133	72.98	2 905	22 663
17	MORELOS	80	43.94	1 747	20 231
18	NAYARIT	80	43.22	1 747	14 154
19	NUEVO LEON	120	65.98	2 621	25 490
20	OAXACA	314	168.83	6 858	44 388
21	PUEBLA	102	53.44	2 228	22 993
22	QUERETARO	60	32.82	1 310	14 915
23	QUINTANA ROO	65	40.43	1 420	12 190
24	SAN LUIS POTOSI	90	49.50	1 966	18 262
25	SINALOA	80	42.00	1 747	17 704
26	SONORA	80	38.74	1 747	14 542
27	TABASCO	100	54.99	2 184	17 340
28	TAMAULIPAS	98	56.96	2 140	24 242
29	TLAXCALA	50	27.40	1 092	14 002
30	VERACRUZ	372	199.24	8 124	56 742
31	YUCATAN	50	27.50	1 092	9 033
32	ZACATECAS	70	41.92	1 529	15 538
<b>TOTAL</b>		<b>4 122</b>	<b>2 212</b>	<b>90 024</b>	<b>851 125</b>

■ Table B4.4 ■ The Better Schools Programme (2011)

## 2012

No.	State	No. actions	Investment (MXN million)	* Jobs generated	* Students benefitted
1	AGUASCALIENTES	50	23.99	1 000	12 387
2	BAJA CALIFORNIA	70	33.59	1 400	17 342
3	BAJA CALIFORNIA SUR	50	23.99	1 000	12 387
4	CAMPECHE	70	33.59	1 400	17 342
5	COAHUILA	70	33.59	1 400	17 342
6	COLIMA	50	23.99	1 000	12 387
7	CHIAPAS	410	196.74	8 200	101 576
8	CHIHUAHUA	100	47.98	2 000	24 775
9	DISTRITO FEDERAL	220	105.57	4 400	54 504
10	DURANGO	70	33.59	1 400	17 342
11	GUANAJUATO	90	43.19	1 800	22 297
12	GUERRERO	220	105.57	4 400	54 504
13	HIDALGO	70	33.59	1 400	17 342
14	JALISCO	200	95.97	4 000	49 549
15	MEXICO	190	91.17	3 800	47 072
16	MICHOACAN	90	43.19	1 800	22 297
17	MORELOS	50	23.99	1 000	12 387
18	NAYARIT	50	23.99	1 000	12 387
19	NUEVO LEON	100	47.98	2 000	24 775
20	OAXACA	300	143.95	6 000	74 324
21	PUEBLA	100	47.98	2 000	24 775
22	QUERETARO	50	23.99	1 000	12 387

23	QUINTANA ROO	50	23.99	1 000	12 387
24	SAN LUIS POTOSI	70	33.59	1 400	17 342
25	SINALOA	70	33.59	1 400	17 342
26	SONORA	50	23.99	1 000	12 387
27	TABASCO	70	33.59	1 400	17 342
28	TAMAULIPAS	70	33.59	1 400	17 342
29	TLAXCALA	50	23.99	1 000	12 387
30	VERACRUZ	350	167.94	7 000	86 711
31	YUCATAN	50	23.99	1 000	12 387
32	ZACATECAS	50	23.99	1 000	12 387
<b>TOTAL</b>		<b>3 550</b>	<b>1 703.44</b>	<b>71 000</b>	<b>879 496</b>
* Approximate numbers and statistics.					

Table B4.5 The Better Schools Programme (2012)

## ANNEX B5. COMPARING AUSTRALIA'S NATIONAL SCHOOL PRIDE PROGRAMME AND MEXICO'S BETTER SCHOOLS PROGRAMME

Aspect of programme	Federal Government of Australia	Federal Government of Mexico
<b>Name</b>	"National School Pride" Programme	"Better Schools Programme"
<b>Initiated - completed</b>	2009 – 2011 (two rounds of applications)	2008 – 2012 (only once per school – 6 rounds)
<b>Cost</b>	AUD 1.28 billion	MXN 9.5 billion
<b>No of schools</b>	9 462	16 000
<b>No of projects</b>	12 639	418 000
<b>Schools included</b>	All Australian schools (government and non-government)	Government schools providing basic education
<b>Purpose</b>	Minor works to improve the physical condition and appearance of individual schools.	Small refurbishment projects to address priority deficiencies in basic education buildings, improve education conditions and develop social participation
<b>Key drivers</b>	Economic stimulus in response to the global financial crisis. Opportunity to improve schools, create employment and engage with community.	Addressing urgent priorities arising from lack of capital and ongoing lack of maintenance. Opportunity to improve schools through social participation.
	Local employment and stimulus to local economy.	Local employment and stimulus to local economy.
	Local participation through school and School Council which includes parents.	Social participation through Parents' Associations (OPSE).
<b>Work completed</b>	Small-scale infrastructure and/or minor refurbishment of buildings.	Minor refurbishment of buildings, roofing, floors and ceilings, sanitation, security fencing, fenestration, locks and grills, paving.
	Painting and repair of classrooms.	Painting and repair of classrooms.
	Fixed shade, outdoor covered areas, sporting grounds and facilities.	(Very few schools with shade or covered areas)
	Green upgrades including water tanks, insulation, landscaping.	Green features – drinking water, recycled sewage, waterless urinals etc
	Specialist infrastructure for students with disabilities and special needs including access ramps and toilets.	Access ramps and toilets for disabled.

	Up to AUD 200 000 per school based on size and needs of school.	Up to MXN 1 million per school based on needs identified and agreed work.
	Condition based assessment. Maintenance audit data and technical advice documented. Input from the school re their priorities.	Condition based assessment to identify and prioritise building fabric needs + input from parents re specific local needs.
<b>Specific contract features</b>	Fast but efficient delivery verified by the school and building inspectors.	Fast but efficient delivery checked by parents and verified by INIFED.
<b>Employment opportunities</b>	Employment of local builders, plus Aboriginal/indigenous, apprentices, trainees.	Engage small to medium-sized contractors who provide local employment and use local services.
<b>Community involvement</b>	School Council including parent participation in decisions and funding.	Parent participation through Parents' Association (OPSE).
<b>Essential requirements</b>	Standards and specifications for school buildings. Records management of plans and documents. Compliance with Occupational Health, Safety & Welfare legislation.	Standards and specifications developed by INIFED. Records management of plans and documents.
<b>Also includes</b>	Workers compensation, insurance, occupational health and safety compliance, child protection checks, building training, probity and contract and quality assurance, records management and government reporting requirements.	

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# Upgrading School Buildings in Mexico with Social Participation

## THE BETTER SCHOOLS PROGRAMME

This review of Mexico's Better Schools Programme was conducted in 2012 by the OECD Centre for Effective Learning Environments (CELE). In 2008, the federal government created the Programme to repair and improve the physical infrastructure of schools for basic education throughout Mexico. A key characteristic of the programme is social participation and the engagement of the each school community. The review team's recommendations offer lessons to all governments investing in educational infrastructure to improve the quality of education.

### Contents

1. Introduction
2. Context and features of the Better Schools Programme
3. Assessment of the Better Schools Programme
4. Conclusions and recommendations

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