

## EDUCATIONAL INFRASTRUCTURE

(ES-0110)

### EXECUTIVE SUMMARY

**BORROWER AND GUARANTOR:** Republic of El Salvador

**EXECUTING AGENCY:** Ministry of Education (MINED)

**AMOUNT AND SOURCE:**

|                          |                    |
|--------------------------|--------------------|
| IDB: ORDINARY CAPITAL    | US\$ 69.84 million |
| IDB/FSO (Local currency) | US\$ 1.10 million  |
| Borrower                 | US\$ 7.90 million  |
| Total:                   | US\$ 78.84 million |

**FINANCIAL TERMS AND CONDITIONS:**

**OC:**

|                             |   |
|-----------------------------|---|
| Amortization period:        | 25.0 years  |
| Grace Period:               | 4.5 years   |
| Interest rate:              | variable  |
| Inspection and supervision: | 1% of Loan Amount                                   |
| Credit fee:                 | 0.75%   |
| Currency:                   | U S   D o l l a r s   -<br>Single Currency Facility |

**FSO:**

|                             |                                 |
|-----------------------------|---------------------------------|
| Amortization period - FSO   | 30.0 years                      |
| Grace period:               | 10.0 years                      |
| Interest rate:              | 1% grace period; 2% thereafter. |
| Inspection and supervision: | 1% of loan amount               |
| Disbursement Period:        | 4 years                         |

**OBJECTIVES:** The objective of the project is to improve the physical learning environment for 20% of the nation's pupils. The project will address the needs for infrastructure in 831 of the highest priority schools out of the 2450 ( 34%) of schools deemed by a MINED survey to be in need of repair, extension or replacement. It is calculated that 250,000 predominantly poor children, who attend the participating schools, will benefit from the program.

**DESCRIPTION:** The project responds to the demand for schooling generated by the modernization of the sector through the rehabilitation, reconstruction and expansion of school infrastructure. The project focuses on funding critical gaps in the quality and availability of infrastructure in all levels of education; preschool, basic and high school; in the different systems, EDUCO and traditional; and in zones of extreme poverty, both rural and urban, throughout the

country, not covered by previous IDB and World Bank loans. Given the urgency and scale of need, and the availability of a reliable mechanism, in the form of the FIS, for the execution of large scale programs of small works, the project will include those schools already in the FIS pipeline and meeting FIS eligibility criteria, and use FIS operating procedures for the management of construction.

The project will finance five related components:

**1. Construction and reconstruction (US\$36.7 million).** The project will invest US\$14.4 million to construct 575 classrooms in 193 schools, in order to replace temporary classrooms which are rented, borrowed or unsuitable for teaching. It will spend US\$21.2 million to construct 765 classrooms in 328 schools, to meet the expansion of urban marginal and rural demand; and US\$1.2 million to construct 51 classrooms in 17 additional EDUCO schools for secciones whose number and size now justify a permanent base.

**2. Repair and rehabilitation (US\$11.8 million).** The project will devote US\$5.1 million to rehabilitate 561 classrooms in urgent need of repair, in 74 traditional rural and EDUCO schools. It will invest US\$5.9 million for the rehabilitation of 1,191 classrooms in 211 out of the 400 schools which will be equipped with resource centers under project ES-0108, so that schools in poor condition need not be excluded from that project. Additionally, to meet the demand for space in high schools in underserved rural areas, the project will invest US\$0.5 million to repair 23 classrooms in 5 rural high schools. Finally, it will provide US\$0.4 million to rehabilitate and partially equip 31 classrooms in three technological centers: San Miguel, Zacatecoluca and Santa Ana.

**3. Materials, equipment and furniture (US\$5.2 million).** The project will provide materials, equipment and furniture for the schools included in the works program.

**4. National preventative maintenance fund (US\$3.0 million).** The project will introduce a systematic nationwide maintenance program for public schools, based on the successes of a community managed maintenance pilot program carried out in MINED schools, and including schools in the EDUCO project. The project will also seek to prevent vandalism,

The project will also seek to prevent vandalism, through the promotion of community responsibility for care of schools. The component will consist of establishing a fund and technical support to: (a) equip communities with the skills and information they need to manage and undertake maintenance; (b) improve maintenance programming; and (c) improve monitoring of maintenance.

5. **Institutional strengthening (US\$0.9 million).** This component has three elements. The first (US\$0.28 million) is to design, implement and train MINED staff in the use of a dynamic and integrated Geographical Information System (GIS) which will enable MINED to manage all aspects of the educational infrastructure of the country. The second element of institutional strengthening (US\$0.28) would be technical consultant support to ensure the efficient operation of the preventative maintenance program. The third element of institutional strengthening (US\$0.34 million) is for administration and supervision of works and provision of support to the MINED for project execution.

**ENVIRONMENTAL  
AND SOCIAL REVIEW:**

The CESI/TRG considered the ESIB and its recommendations are found in paragraphs 2.15 b, 4.17, 4.18 and 4.19. These include the appointment of an environmental specialist to the MINED for the construction phase and the inclusion of environmental considerations in school maintenance.

**BENEFITS:**

It is calculated that 250,000 predominantly poor children who attend the participating schools will benefit from the immediate impact of the program. In addition, the MINED will have a better system by which to monitor and maintain its educational patrimony.

**RISKS:**

The main risk faced by the project lies in the implementation capacity of the GOES. A number of steps have been taken to ensure timely implementation. The construction of schools is to be divided between the FISDL and civil society institutions. The measures taken to minimize the risks are described in paragraphs 4.22 and 4.23.

**THE BANK'S  
COUNTRY AND  
SECTOR STRATEGY:**

The program is consistent with the IDB's country and sector strategies. The IDB country strategy is consistent with the GOES strategy and the main programming areas for IDB are: (a) social reform and local development; (b) environment and sustainable development; (c) promotion of private sector

strategy for education in El Salvador is to promote greater equity and both internal and external efficiency. The bank places emphasis on: (a) updating school curricula, teacher training and upgrading materials and equipment; (b) reinforcing the administrative, managerial and technical capacity of the MINED; (c) developing innovative ways to expand coverage, including specific targets for girls and informal education for women, adults and disadvantaged adolescents; (d) promoting community and parent participation in education and strengthening school boards; and (e) upgrading and expanding basic infrastructure.

**EXCEPTIONS TO BANK POLICY:** See Procurement of goods, works and consulting services.

**PROCUREMENT OF GOODS, WORKS AND CONSULTING SERVICES:** The thresholds above which international competitive bidding is mandatory are: US\$250,000 for goods; US\$ 2,000,000 for works and US\$200,000 for consulting services. In addition, direct hiring of three specialized agencies (FIS and two NGOs - Habitat and Fundasal) is recommended, as an exception to selection by open competition. The referred agencies will carry out any procurement or other required activities observing the procedures of the Bank. The direct hiring procedure is in accordance with Chapter GS-403 of the Procurement Manual (see justification in paragraphs 3.3 and 3.13).

**SPECIAL CONTRACTUAL CONDITIONS:** The following conditions will be incorporated:

- a. Conditions Prior to First Disbursement:
  - (i) Approval by the Bank of cooperation accords to be signed between the MINED and the Executing Agencies (3.2 through 3.9).
  - (ii) Presentation of the annual work plan for the first year of execution (3.11)
- b. Special conditions:
  - (i) Establishment of a funding procedure and technical support mechanism, including the adoption of operating rules and regulations, should be complied with prior to the approval of work plan for year two (2.12).
  - (ii) Adoption of the GIS prior to the agreement of work plan for year 3. ( 2.13)

**POVERTY TARGETING:** The program qualifies as a poverty targeted investment under the Eighth Replenishment (Document GN-1964-2). It supports predominantly pre-school and basic education. In addition the project has been geographically targetted to poor beneficiaries.

and basic education. In addition the project has been geographically targetted to poor beneficiaries. It has been determined that a significant majority of the beneficiaries of the operation, according to the classification prevailing in the country, are poor.

## I. BACKGROUND

### A. The Reform of Education

- 1.1 Beginning in 1989, before peace was formalized, the Government of El Salvador (GOES) initiated an educational modernization and reform program to improve the contents, quality and administration of its educational system. The achievements have been significant both in terms of coverage and efficiency. Between 1989 and 1996, the overall enrollment rate in primary education increased from 65% to 95% while in lower secondary it rose from 20% to 38%. In the first six grades enrollment in rural areas now exceeds that in urban, even though the size of the respective cohorts is similar.
- 1.2 With regard to internal efficiency, the example of rural education is salutary: the percentage of the cohort graduating from sixth grade rose from 23% in 1991 to 48% in 1997. Nationally, the number of years of schooling attained has risen from 4.7 (1987) to 6.9. The number of years to produce each graduate has declined from 22 to 11.5. The national illiteracy rate has decreased from 40% to 25%.
- 1.3 **The Thrust of the Reforms.** These gains have been brought about by a number of measures, both administrative and educational: (i) legal reforms 1/; (ii) implementation of the Educación con Participación de la Comunidad (EDUCO) project which expanded coverage to hitherto unserved rural areas 2/; (iii) implementation of an improved teacher training program; (iv) improvements in curricula; (v) decentralization of school administration; and (vi) strengthening and streamlining of the Ministry of Education (MINED).
- 1.4 The main educational reforms have been to develop a curriculum relevant to rural areas, provide texts and materials, equip teachers with the skills and materials for the large number of multigrade schools, introduce sample based standard tests of pupil performance, improve the health and nutrition of disadvantaged pupils 3/, and upgrade teachers through regional offices and model schools. A curriculum for grades 1 to 12 has been approved and for 1 to 9 is in use. A newly approved project funded by the IBRD will implement and evaluate this curriculum in grades 10 to 12.

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1/ Ley de Educación Superior de 1995, Ley general de Educación de 1996 y Ley de la Carrera Docente de 1996.

2/ This particular administrative reform has been the subject of much international attention including specific recognition by the IBRD as a model of good practice, and favorable evaluation by the Dirección Nacional de Evaluación e Investigación of the Ministry of Education - "Evaluación de Impacto del Programa EDUCO", San Salvador, Mimeo, 1997.

3/ Through the use of schools called "escuelas saludables" in conjunction with the Ministry of Health, which focus on providing nutrition and additional health education.

- 1.5 The administrative aspects of the reforms increased the planning capacity of the MINED, delegated management to more appropriate levels through decentralization, and promoted community participation. To expand coverage in remote areas, a new school administration system was established. *Asociaciones Comunes para la Educación* (ACE) were set up to operate small, isolated, rural schools through the EDUCO project. The ACE manages the budget provided by the MINED, engages teachers and evaluates certain aspects of teacher performance such as attendance, and maintains schools. By 1997, 12% of all classes or *secciones* were EDUCO. In rural areas, 30% of the schools and 20% of enrollment, were EDUCO. By 2000, 2,000 classes for grades 1 to 6, and 1,000 rural preschool classes will be added to EDUCO.
- 1.6 However, El Salvador still faces a serious problem regarding the availability and condition of its school infrastructure. This is one result of: the severe economic crisis of the 1980s, which brought about a drastic decrease in domestic investment for education <sup>4/</sup>; the destruction of schools during the armed conflict and the resulting relocation of the population for reasons of security; the 1986 earthquake; and the general neglect of infrastructure, due to the absence of planning data and an efficient program of school infrastructure maintenance.
- 1.7 Despite gains in efficiency, the reforms have considerably increased the net demand for space in schools. To accommodate the increased number of pupils the MINED has been able to rent, borrow, or otherwise improvise space for classes. It transferred many schools from the traditional administrative model to EDUCO. In addition, in 1990, the Fondo de Inversión Social (FIS) <sup>5/</sup> was established, through which more than 4,000 classrooms have been built. However, these efforts have only aimed to satisfy demand generated in rural areas by the reform. They have not reduced the accumulated deficit of infrastructure. At the same time, demand for education continues to increase. From 1998, FIS priorities will focus on an array of different social programs, which may or may not include funding schools, according to the priorities of the community. The FIS will continue to execute school construction financed by the MINED.
- 1.8 The deficiency in infrastructure is the major obstacle to the deepening and consolidation of the country's education reforms, being financed by the Bank [879/OC-ES] and the World Bank.

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<sup>4/</sup>  
<sup>5/</sup>

Social sector spending as a percentage of GDP decreased 50% during the 1980s.  
With the next phase of the FIS Project (Project - ES-0109) the orientation will move towards promoting locally articulated development objectives and the name will change to Fondo de Inversión Social, Desarrollo Local (FISDL). In this document, FIS will refer to actions prior to 1998 and FISDL will denote the fund after 1998.

B. The Education Sector in El Salvador

- 1.9 Schooling comprises initial education, two years preschool, and three, three year cycles of basic education. The first two cycles - grades 1 to 3 and 4 to 6, are called primary. Many smaller rural schools use multigrade teaching methods. In the smallest communities schools are unable to offer the complete six grades of primary. The third cycle, lower secondary, covers grades 7 to 9. Preschool and basic education are fee free. Basic is followed by three years of diversified secondary, called *Media*. Nine years of education have been obligatory since 1968.
- 1.10 The school aged population is equally divided between urban (581,000) and rural (561,000), as is basic school enrollment.

Table 1.1  
1997 TOTAL ENROLLMENT

|        | Urban  |        |       | Rural  |        |       |
|--------|--------|--------|-------|--------|--------|-------|
| Grades | Male   | Female | % pub | Male   | Female | % pub |
| 1-3    | 113912 | 11882  | 78.0  | 161059 | 176034 | 98.2  |
| 4-6    | 93250  | 95025  | 77.8  | 86150  | 91549  | 97.8  |
| 7-9    | 83369  | 83083  | 76.7  | 34546  | 38421  | 95.5  |
| 10-12  | 79024  | 72591  | 53.6  | 0      | 0      | 0     |
| Total  | 369555 | 366552 | 72.6  | 281755 | 306013 | 97.8  |

- 1.11 Between 1990 and 1997 gross enrollment in basic education rose from 965,000 to 1,172,548. Of the additional 205,000, 155,000 were in the first two cycles in rural areas and 50,000 were in the third cycle, predominantly in urban areas. Net urban enrollment in the first two cycles rose from 78% in 1995 to 85% in 1997, while rural rose from 71% to 88%, through both conventional and non conventional schools such as EDUCO and Escuelas Saludables <sup>6/</sup>. Female enrollment almost equals male enrollment in urban areas and exceeds it in rural areas. However, many children still do not attend school, and many who do enroll leave prematurely. Among the many reasons for low enrollment and desertion is a shortage of places, especially for grades 4 and above.
- 1.12 **Financing.** Education spending fell from 3.6% of GDP in 1980 to 1.5% in 1992. This was partly the result of the conflict and the lower levels of economic activity. The percentage of the national budget devoted to education declined from 24% in 1980 to 13.6% in

<sup>6/</sup>

Escuelas Saludables devote special attention to health services and health education where health standards are especially poor.

1992. The education reforms referred to above have reversed this trend. The GOES is committed to increasing education spending from a still comparatively low 2.2% of GDP in 1996 to 3.4% within five years. There is a need both for additional resources and to improve further the efficiency with which resources are currently used: specifically by continuing to reduce repeating and premature dropping out of school.

- 1.13 The macroeconomic situation indicates that the Government could increase social spending in order to reduce poverty and improve standards in education, housing and health. This will require an increase in external indebtedness as well as a higher level of tax collection in order to meet the local counterpart costs. Even though the balance of payments is solid and the country has a capacity to carry a higher level of indebtedness (external debt represents only 22% of GDP which is one of the lowest in Central America), the maintenance of economic stability places fiscal restrictions on the government, which will limit the size of the deficit. The impact of the current project on the fiscal deficit in the short to medium term is to add less than 0.4%. This consists of incremental recurrent costs during and after execution and a maintenance fund after execution. However, the authorities will need to increase tax revenue and/or redefine priorities in other sectors.
- 1.14 The GOES's priority of providing all children with the mandated nine years of education shows in the distribution of spending. Grades 1 to 9 received 71.0% of the budget and preschool 5.0%. Investment expenditure accounted for only 2.3% of the budget.
- 1.15 **Education Infrastructure.** The MINED operates 4,564 educational centres, most of which combine different levels of education. There are 3,086 preschool groups, over 2,300 of which are in rural zones, reflecting the GOES concern to have disadvantaged rural children better prepared for school. Primary schools number 4,374 with a predominant 3,400 in rural areas, a reflection of the smaller size of rural schools. In contrast, of the 225 public high schools, only 24 could be considered to be in rural areas. Responsibility for school buildings and equipment lies with the MINED's Department of School Infrastructure. However, with a staff of just 17, this unit has only a normative, regulatory and supervisory function. The MINED's works division was eliminated in cost saving efficiency measures and the construction of schools has been managed for many years primarily by the FIS which has carried out the identification, preparation, contracting and on-site supervision of works. NGOs have also built schools in conjunction with the MINED.

C. Current Challenges

- 1.16 **The shortage of school infrastructure.** The country has a total of 34,121 class groups (called *secciones*) in the nine obligatory

grades but only 26,408 classrooms are available. In urban areas, schools can and do easily operate in shifts. In rural areas, the 20,588 secciones have only 13,075 classrooms. Shifts are common but in many communities the opportunities for multiple use are limited by distance and poor communications, the absence of electricity for evening use and an absolute lack of capacity.

- 1.17 **The condition of school infrastructure.** Of the school stock which has been surveyed, 2,450 schools are in poor physical condition and in need of renovation, or lacking space and facilities necessary to meet their enrollment. Many classes are held in borrowed or rented premises which have other uses. Some schools are held in inappropriate premises which were the only MINED owned spaces available to meet the expansion. Studies show that pupil performance in schools with an adequate number of well designed classrooms is higher than in schools with insufficient rooms 7/.
- 1.18 **Incomplete schools.** Many schools do not offer all grades and many are multigrade. Of the 3,400 rural schools, only 594 rural schools offer all nine obligatory grades and only 1,164 offer the full primary cycle of six grades. 375 rural schools offer only grades 1 to 3, 250 only offer grades 1 and 2, and 69 offer only grade one. When a school offers only three grades, many students drop out on completion of the highest grade offered, rather than transfer to another school. Others repeat grades in order to meet the legal requirement to attend school. This structure thus explains in part the high desertion and repetition rates in the early years of primary education in rural areas. Many academically successful rural children simply have no higher class to which they may progress. Even when higher grades are available in accessible schools, the mere change of location greatly increases the risk that rural children will drop out of school.
- 1.19 Rural schools also perform badly due to the linked problems of **late first grade enrollment and the number of overage children.** The repetition rate in rural first grade is 14.3% compared with only 5.7% in second. The desertion rate is 12.3% compared with only 3.9% in second. In 1996, seven year olds numbered 140,000, while first grade enrollment was 240,000. For each rural seven year old, there were two pupils in grade 1. For each urban seven year old there were 1.3 pupils enrolled. The causes are manifold. Older children, having missed education during the conflict, for example, enroll in first grade. Parents keep children back even when they have "passed" the grade in the belief that they will learn better by repeating. Even with books and consumables, it is difficult to keep rural children in school with other demands on their time.
- 1.20 **Absenteeism** is also a major problem in rural areas. Between 28 and 38% of children in La Unión, Morazán and La Paz, miss school on any

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Mwamenda T.S. & Mwamenda B.B. 1987. School Facilities and Pupils' Academic Achievement. Comparative Education, 23(2) 225-235.

given day compared with a national average of 17%. The expansion of rural preschool education has been promoted by the GOES to encourage timely enrollment and attendance and better prepare children from educationally disadvantaged communities for the critical first years of school. Preschool coverage grew by 58% between 1991 and 1995. However, the government's target of 40% coverage of the cohort has not yet been reached (actual coverage is 31%) due in large part to a lack of spaces. Preschooling will generate considerable additional demand for school spaces.

- 1.21 **Lack of the obligatory third cycle in rural areas.** Though 54% of the urban cohort attend the third cycle, only 14% of rural children enroll. The main reason is that the number of schools with classes offering grades 7 to 9 in rural areas is limited: urban schools have 3,600 classrooms for the 120,000 students in the cycle, while the rural sector has only 1,400 classrooms for 46,000 students. This shortage of space in the third cycle reduces incentives to complete the primary grades in those areas with limited prospects of continuing. Due to the success of the reforms, it is estimated that the demand for third cycle places in rural areas will rise to 135,000 in the coming decade. While the MINED is preparing a self-paced, extra mural mode for many third cycle students 8/, there will be a growth in demand for third cycle spaces.
- 1.22 The supply of *Educación Media* (for grades 10 to 12) is predominantly urban, and almost half the demand is met by private schools. Only 3.7% of enrollment in grades 10 to 12 is in rural areas, and as with the third cycle of basic, the demand is set to rise. The GOES is preparing to meet the rising demand by rationalizing the number of optional subjects and curriculum changes in a secondary education project which is being supported by the World Bank (IBRD) - see 1.31.
- 1.23 The GOES has decided to expand its program of school based learning resource centres (with the aid of IDB project ES-0108) in order to introduce educational technology to rural children. Project ES-0108 will construct the necessary centres to house the learning resources. However, so that disadvantaged schools in poor physical condition will not be excluded from the project, about 211 of the 400 schools which will benefit from resource centres under ES-0108, will undergo a general rehabilitation, which this project (ES-0110) would finance.
- 1.24 **Poor school maintenance.** Traditional rural schools are characterized by their poor physical condition, a result of neglect, under-funding of repairs and maintenance, and delinquency. Almost no funds have been allocated to routine preventative maintenance in the past, even though such expenditures can have a large impact on school performance. Studies have repeatedly shown that school facilities in poor condition have an adverse impact on

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Funded with the aid of IDB in project ES-0108.

student performance. Edwards <sup>9/</sup> found that as schools moved up from one category of disrepair to another, student scores improved. Even in high performing school systems such as Hong Kong, student attitudes to teachers and school correlated positively with the condition of the school buildings <sup>10/</sup>. Considerable improvements in student performance and attitudes accrue to simple cosmetic changes such as painting, cleaning, adequate furniture, landscaping, school cleaning, functioning lockers, and the removal of graffiti, all of which lie within the capacity of the community to accomplish. The GOES has had a number of successful programs of community based maintenance which it now wishes to adapt to all schools in the country.

- 1.25 **Limited Physical planning capacity.** While the GOES has most of the information needed for the management of school infrastructure, there are problems of integrating general school information, and accessing the information in a manner which allows for the monitoring of school conditions and the identification and prioritization of physical works. The importance of this information will increase as the GOES adopts a preventative maintenance program. In addition, there is a need to improve the management of school capacity and efficiency data, and to link educational data to other social data systems such as the household poverty survey, in order to better identify unmet educational needs and pressing social problems which bear on education. There is a need for a more dynamic, integrated and computerized information system in the MINED.

D. GOES Strategy

- 1.26 The GOES social strategy is to target spending to vulnerable groups, give priority to basic services and to reform and modernize the state. In education, the government seeks to create an effective instrument of economic and social development with the focus on improving quality, efficiency and effectiveness and expanding coverage in rural areas and under served communities. The GOES is seeking to overcome the inequality which exists between rural and urban areas and between poor and better-off children. It wishes to present all children with the opportunity to attend a good quality school and to provide compensatory measures to ensure that children from disadvantaged backgrounds are well prepared for school. These measures have included targeted nutrition and initial education programs, preschooling and schools with a specific focus on child health.
- 1.27 The proposed project is consistent with this policy by ensuring that the buildings in which education takes place are accessible to

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<sup>9/</sup> Edwards, M.M. 1991 Building conditions parental involvement and student achievement in the D.C Public School System. Georgetown University.

<sup>10/</sup> Cheng, Y.C. 1994 Classroom Environment and Student Affective Performance: An affective Profile. Journal of Experimental Education 62(3) 221-9.

the poor, hygienic, safe and stimulating. Its focus is on poor, underserved rural and urban marginal communities where the process of education has been established. In the case of the successor to the FIS, *El Fondo de Inversión Social y Desarrollo Local (FISDL)*, the emphasis will switch from simply funding community infrastructure needs, such as schools, to the promotion of locally articulated development plans, looking at the range of needs - potable water, sanitation, health etc. Project ES-0110 will fill the gap created by the low level of investment in infrastructure and the damages caused by the conflict. The project will also lay the foundation for an integrated approach to the management of school infrastructure.

E. IDB Strategy and Rationale for Involvement

- 1.28 The IDB country strategy <sup>11/</sup> is consistent with the GOES strategy. Main programming areas for IDB are: (i) social reform and local development; (ii) environment and sustainable development; (iii) promotion of private sector development; and (iv) modernization of the state. IDB strategy for education in El Salvador is to promote greater equity and both internal and external efficiency. The Bank places emphasis on: (i) updating school curricula, teacher training and upgrading materials and equipment; (ii) reinforcing the administrative, managerial and technical capacity of the MINED; (iii) developing innovative ways to expand coverage, including specific targets for girls and informal education for women, adults and disadvantaged adolescents; (iv) promoting community and parent participation in education and strengthening school boards; and (v) upgrading and expanding basic infrastructure.

F. Experience of the Bank and Other Donors

- 1.29 The Bank is executing a loan to improve primary education throughout the country and expand coverage in rural areas through the expansion of the EDUCO model. The loan, 879/OC-ES-IDB for US\$37.3 million, was approved in 1995 and is 26.6% disbursed. This project is co-funded with the World Bank (IBRD) (US\$34.0 million). To date the project has created over 250 new pre-school *secciones* for more than 8,000 additional infants; 500 new *secciones* for grades one and two, for 16,000 children; and converted over 200 traditional rural schools to community managed EDUCO schools. In addition, it has initiated many evaluative studies and teaching material development activities. An innovative feature of this project is that execution is the joint responsibility of the MINED and the *Fundación Empresarial para el Desarrollo Educativo (FEPADE)*, an NGO established to bring the support of the private sector to public education. The above loans provided minimal resources for infrastructure and instead relied on the FIS to

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<sup>11/</sup>

El Salvador Country Paper, GN-1981, June 17, 1987. Para 14 of the Executive Summary, and paragraphs 3.13 are referred to.

construct and renovate schools as needed by the project. Thus these loans did not address the accumulated backlog of needed repairs and replacements.

- 1.30 A Multilateral Investment Fund (MIF) project of \$400,000 to promote a consortium of local NGOs to provide job training was approved in 1995. Three loans for the Social Investment Funds (FIS) have been used in part to construct and rehabilitate 4000 classrooms 12/. In 1990 loan 837/SF-ES rehabilitated and restructured the *Instituto Tecnológico Centro-Americano* (ITCA). Implementation of recent IDB loans to El Salvador has been encouraging. In 1991, a Regional TC included a \$550,000 component for the analysis and development of actions for youth at risk, which improved the treatment of young detainees.
- 1.31 The World Bank has funded (August 1997) a loan of \$58 million for the reform of secondary education (grades 10 to 12) which will expand access and improve efficiency. The project has the following components: 2,340 scholarships; repair and construction of 112 schools; distance education; curriculum development; teacher training; and, pupil assessment. The World Bank (IBRD) has also funded a Social Sector Rehabilitation Project costing \$35.6 million (3348-ES, 1991) which enhanced the GOES capacity to provide health, education and other social services. This project included funding for the detailed survey of school infrastructure. The Central American Bank for Economic Integration (BCIE) is supporting the project of *escuelas saludables*, including repair, replacement or construction of 666 schools.
- 1.32 The project under consideration forms a logical extension of earlier IDB loans to El Salvador which have improved the quality and coverage of basic education. This project addresses the long term deficit in infrastructure and the shortages generated by, among other factors, the success of the reforms and the growth of the EDUCO project.

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FIS 861/SF-ES for \$33.0 million, approved in 1991, is disbursed, 765/OC-ES and 905/OC-ES for \$60.0 million approved in 1993 and 98.9% disbursed, and 879/OC-ES for \$60.0 million approved in 1994, and 80% disbursed.

## II. THE PROJECT, ITS COSTS AND FINANCING

### A. Objectives of the Project

- 2.1 The objective of the project is to promote equity and quality in education. It will do so by improving the physical learning environment for 20% of the nation's pupils. The project will address the most urgent needs for infrastructure in 831 of the 2450 (34%) schools deemed by a MINED survey to be in need of repair, extension or replacement <sup>13/</sup>. It is calculated that 250,000 children, most of them poor, who attend the participating schools will benefit from the project.

### B. Project Conception

- 2.2 The project responds to the demand for schooling generated by the modernization of the sector (supported by IDB/World Bank loans) through the rehabilitation, reconstruction and expansion of school infrastructure. The project focuses on meeting critical gaps in the quality and availability of school infrastructure in all levels of education; preschool, basic and high school; in the different systems, EDUCO and traditional; and in zones of extreme poverty, both rural and urban, throughout the country.
- 2.3 Due to the urgency of the need for improved and additional infrastructure, MINED has been actively seeking financing, such that the full impact of the sectoral reform would be achieved. In addition to the 32% of infrastructure needs which this project would represent, the IBRD, CABEI and other donors have approved or are preparing loans as shown in table 2.1.
- 2.4 Given the urgency and scale and the need for a reliable mechanism for the execution of large scale programs of small works, **the project will be executed using FIS methodology and include those schools already in the FIS pipeline and meeting FIS eligibility criteria.** (Chapter IV describes FIS's project eligibility criteria and methods of analysis under "economic feasibility"). The inclusion of these schools has financial implications and an influence on the project's administration and organizational structure.

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Projects currently in execution or preparation will address a further 38% of the deficit (942 schools) within five years.

Table 2.1  
INFRASTRUCTURE NEEDS AND SOURCES OF FINANCE.

| SOURCE  | STATUS       | No of<br>SCHOOLS | AMOUNT US\$<br>000 | % of<br>DEFICIT |
|---|--------------|------------------|--------------------|-----------------|
| IDB/IBRD (Loan 879)                             | Execution    | 38               | 1,750              | 1.6             |
| ES-0110 (& ES-0108)                             | Analysis     | 831              | 56,181             | 34              |
| IBRD Secondary Ed'n<br>(construction component) | Approved     | 112              | 13,200             | 4.6             |
| IBRD Modernization II                           | Identific'n. | 450              | 33,000             | 18.4            |
| BCIE Escuelas saludables                        | Analysis     | 675              | 20,000             | 28.0            |
| Japan (grant)                                   | Analysis     | 51               | 11,000             | 2.0             |
| TOTALS  |              | 2157             | 135,131            | *88.6           |

\*The Bank is considering a follow up operation to fill the remaining gap.

2.5 **Financial implications:** Since 1990, FIS methodology has included the use of "*formuladores*" (promoters). The promoters are small contractors with a sound knowledge of FIS eligibility criteria and the communities they serve, who "promote" the project to communities in need. Once FIS has carried out the relevant analysis and has approved the project, simple procedures apply to construction. If the project costs less than the equivalent of US\$100,000, the community can assign the work to the promoter and the promoter would not charge for project design (*formulación*). The FIS reserves the right to reverse the decision, based on the promoter's standing within the FIS ranking system. When a project costs more than US\$100,000, the work goes for local bidding. If the promoter decides to submit a bid, then s/he would not receive the fee for formulation. If, on the other hand, the promoter decides not to submit a bid s/he could negotiate with FIS to receive a fee for project formulation (currently averaging between 0.9% and 2.0% of the value of the job). **Based on the pipeline in Annex II, project formulation fees could amount to over US\$500,000, though the final cost would not be known until all works had been tendered.**

2.6 **Project Administration and Organizational Structure:** For a number of years MINED has relied on the FIS to manage its construction program. Consequently, it has no capacity to directly execute the proposed project in addition to the ones it has currently underway. Thus, the additional demands on MINED will be met by (i) maintaining its working relationship with the FIS; and (ii) engaging two NGOs to help manage the contracting and supervision of works according to FIS operating procedures. (Chapter III.B of this document, contains a further explanation of project organization under the execution arrangements).

C. Project Description

- 2.7 The project will finance five related components: (i) construction and reconstruction of classrooms; (ii) repair and rehabilitation of classrooms; (iii) furnishing and equipping schools; (iv) improved preventative maintenance; and (v) institutional support for the MINED.

1. Construction and reconstruction (US\$36.7 million).

- 2.8 The project will invest US\$14.4 million to construct 575 classrooms in 193 schools, in order to replace temporary classrooms which are rented, borrowed or unsuitable for teaching. It will spend US\$21.2 million to construct 765 classrooms in 328 schools, to meet the expansion of urban marginal and rural demand; and US\$1.2 million to construct 51 classrooms in 17 additional EDUCO schools for secciones whose number and size now justify a permanent base.

2. Repair and rehabilitation (US\$11.8 million).

- 2.9 The project will devote US\$5.1 million to rehabilitate 561 classrooms in urgent need of repair, in 74 traditional rural and EDUCO schools. It will invest US\$5.9 million for the rehabilitation of 1,191 classrooms in 211 out of the 400 schools which will be equipped with resource centers under project ES-0108, so that schools in poor condition need not be excluded from that project. Additionally, to meet the demand for space in high schools in underserved rural areas, the project will invest US\$0.5 million to repair 23 classrooms in 5 rural high schools which have exceeded the number able to be financed under the World Bank aided project to reform secondary education. Finally, it will provide US\$0.4 million to rehabilitate and partially equip 31 classrooms in three technological centers: San Miguel, Zacatecoluca and Santa Ana.

3. Materials, equipment and furniture (US\$5.2 million).

- 2.10 The project will provide materials, equipment and furniture for the schools included in the works program.

4. National preventative maintenance Fund US\$3.0 million.

- 2.11 The project will introduce a systematic nationwide maintenance program for public schools, based on the successes of a community managed maintenance pilot program carried out in MINED schools, and including schools in the EDUCO project 14/. The project will also seek to prevent vandalism, through the promotion of community

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14/

The system was piloted in 317 MINED owned schools, including EDUCO and Escuelas Saludables, and evaluated in 83 of them, in "Evaluación del Sistema de Mantenimiento Preventivo Escolar" by Fundación Salvadoreña de Apoyo Integral (FUSAI) in March, 1996.

responsibility for care of schools. The component will consist of initiating a fund and technical support to: (i) equip communities with the skills and information they need to manage and undertake maintenance; (ii) improve maintenance programming; and (iii) improve monitoring of maintenance. The fund will follow the current mechanism to transfer funds to the community through "*bonos de calidad*".

- 2.12 MINED has already established a mechanism for the transfer of funds, through its "*Bonos de Calidad*" program legally regulated by the "*Ley de la Carrera Docente y Reglamento de la Ley de la Carrera Docente*". The legally established *Consejo Directivo Escolar*, signs an agreement with MINED to participate in the Program. Through this Program, MINED transfers resources to private bank accounts established by the *Consejos Directivos Escolares* to improve the quality of education (30% of the funds had been used for infrastructure). The administration of funds is periodically audited by MINED. The National Preventative Maintenance Fund proposed by the project will use the same mechanism whose results have been very positive. In addition, the Bank funds will be deposited in a special account at the Banco Central de Reserva (BCR) and a pari-passu system will be established to replenish the Fund. Since Salvadorean law does not allow MINED to deposit its funds in a financial institution, a mechanism will be developed by the consultants, so that MINED counterpart could be included in its budget. **The fund and the technical support mechanism, including the adoption of operating rules and regulations, will be a special condition for approval of the work plan for year two.**

##### 5. Institutional strengthening (US\$0.9 million)

- 2.13 This component has three elements. The first (US\$0.28 million) is to design, implement and train MINED staff in the use of a dynamic and integrated Geographical Information System (GIS) which will enable MINED to manage all aspects of the educational infrastructure of the country. The GIS will also seek to incorporate household survey and poverty data to identify zones of low school attendance. Once in operation, by the second year of the project, the GIS will form a key part of the annual programming of the work plan, in order to ensure the project retains its focus on the areas of greatest need. The component would fund two statistical assistants in the MINED during project execution. **The establishment and adoption of the GIS for programming shall be completed by the end of the second year of project execution, and will be a condition for approval of work plans for year three.**
- 2.14 The second element of institutional strengthening (US\$0.28) would be technical consultant support to ensure the efficient operation of the preventative maintenance program. This would require a detailed analysis of the scale of work at the national level, the identification and planning of the works with the highest benefits in terms of their costs and executability by the community, and the

design of a permanent program planning, monitoring and evaluation capacity.

- 2.15 The third element of institutional strengthening (US\$0.34 million) is for administration and supervision of works and provision of support to the MINED for project execution.

a. A consultant would be provided on a temporary basis. The consultant's responsibilities will be to provide support to MINED's Infrastructure Division to: (i) prepare and present, for Bank's approval, the documentation required to comply with the conditions prior to first disbursement and any other special conditions; (ii) develop the annual work plan for the first year of execution; (iii) prepare and train MINED/ID's personnel in the preparation of related documentation, for the bidding process required by the project; and (iv) support MINED/ID during the first year's supervision mission.

b. An environmental specialist will be engaged in the MINED for the duration of the project. The role of the specialist will be to ensure that the environmental guidelines are being applied on all the works funded by the project, in addition to those executed by the FIS. The specialist will make improvements to the guidelines based on the experience of environmental problems which arise, such as those relating to adequate site cleaning after construction, adequate length for water run off pipes, and the replacement of shrubs and trees removed during construction. In addition, the specialist will ensure that the work of the community maintenance program is environmentally sound as it relates to school maintenance and small scale improvements.

c. Professional and administrative personnel will also be provided for MINED's Infrastructure Division and for the Information Unit (see 2.13 above) for: (i) project execution; and (ii) implementation of the GIS.

D. Cost and Financing of the Project

- 2.16 The total cost of the project is presented in Table 2.2, according to category of investment and source of finance.

Table 2.2  
**COST AND FINANCING**  
(millions of US\$)

| Categories   | IDB/OC       | IDB/FSO     | GOES        | TOTAL        |
|--|--------------|-------------|-------------|--------------|
| 1. Construction & Reconstruction                                   | 36.7         |             |             | 36.7         |
| 2. Repair & Rehabilitation   | 11.8         |             |             | 11.8         |
| 3. Materials, Equipment & Furniture                                | 5.2          |             |             | 5.2          |
| 4. Preventive Maintenance Program                                  | 3.0          |             |             | 3.0          |
| 5. Institutional Support   |              | 0.900       |             | 0.9          |
| 6. Incremental Recurrent Costs During Execution (School Operating) |              |             | 1.9         | 1.9          |
| 7. Auditing  |              |             | 0.1         | 0.1          |
| 8. Contingencies   | 5.3          | 0.100       | 0.5         | 5.9          |
| 9. Financial Costs   |              |             |             |              |
| - Interest   | 7.25         | 0.034       | 4.78        | 12.03        |
| - Inspection and Supervision                                       | 0.59         | 0.010       |             | 0.69         |
| - Credit Commission  |              |             | 0.62        | 0.62         |
| <b>TOTAL</b>   | <b>69.84</b> | <b>1.10</b> | <b>7.90</b> | <b>78.84</b> |
| <b>Percentages</b>   | <b>90%</b>   |             | <b>10%</b>  | <b>100%</b>  |

2.17 The total cost is estimated to be US\$78.84 million, divided into: (a) US\$69.84 million from the Single Currency facility of the Bank and using Ordinary Capital Resources (OC) in United States Dollars; (b) US\$1.10 million from the local currency facility of the Fund for Special Operations; and (c) US\$7.9 millions from the GOES. Given that the project is a poverty targeted investment (PTI) it qualifies for 10 additional percentage points of financing by the Bank, representing 90% of the project's total costs. Interest incurred during the execution will be financed by the loan and amounts to US\$12.03 million for the loan and US\$34,000 for the FSO resources.

2.18 The terms and conditions of the proposed loan are in table 2.3.

Table 2.3  
TERMS AND CONDITIONS OF THE LOAN

| Source of Funds     | Ordinary Capital             | FSO Local Currency                      |
|---------------------|------------------------------|---|
| Amount              | 69.84                        | 1.00                                    |
| Terms               |                              |   |
| Amortization        | 25.0 years                   | 30.0 years                              |
| Grace Period        | 4.5 years                    | 10.0 years                              |
| Disbursement Period | 4.0 years                    | 4.0 years                               |
| Interest Rate       | Variable                     | 1.0% in grace period<br>2.0% thereafter |
| Supervision         | 1% of Loan amount            | 1% of Loan amount                       |
| Credit Commission   | 0.75% of undisbursed balance | 0%                                      |

### III. INSTITUTIONAL FRAMEWORK AND PROJECT EXECUTION

#### A. The Borrower and Executing Agency

- 3.1 The borrower will be the Government of El Salvador. The executing agency will be the Ministry of Education.

#### B. Participating Agencies

- 3.2 The MINED has the minimum staff needed to exercise a normative function in school design and construction and for a number of years has used the services of the FIS to manage its construction program. In addition, the MINED is executing a number of other projects which will make demands on its limited resources. For these reasons it has been decided to meet the additional demands on the MINED by: (i) maintaining its working relationship with the FIS; (ii) incorporating the services of two NGOs for contracting and supervision; and (iii) contracting additional fixed term support for the Infrastructure Unit of the MINED during project execution.

#### C. Justification for the Use of FIS and NGOs

- 3.3 MINED authorities and the Project Team have carried out an analysis of alternatives for project organization through consultations with private sector corporations, a review of COF/CES experience and research on NGOs operating in the country. The results of this analysis indicate that: (i) there are only four NGOs in the country with experience of infrastructure work, and only two *Fundación Habitat* (HABITAT) and *Fundación Salvadoreña de desarrollo y Vivienda Mínima* (FUNDASAL) have the comparative advantages of having worked with the type of communities involved in the proposed project, as well as having relevant and extensive experience; and (ii) the FIS costing and administrative systems make it the least expensive and most efficient in the country.
- 3.4 Consequently, MINED has negotiated, on a preliminary basis, the participation of HABITAT and FUNDASAL. The two NGOs are legally constituted, non-profit organizations.
- 3.5 **HABITAT** was created under Executive Order Number 9 of February 25, 1987, as a legally constituted, non-profit organization. Its objective is to promote the overall improvement of low-income families and communities through the solution of housing and environmental problems in urban and rural areas.
- 3.6 HABITAT's experience includes: (i) "*Componente de Desarrollo de Proyectos Comunes para Apoyar el Programa de Reconstrucción Nacional*", (GOES/HABITAT) which invested almost 11.0 million Colones in housing and 6.3 million Colones in potable water and sewage, and which benefitted 23,207 individuals in 16 communities; and (ii) the *Programa de Viviendas para Desmovilizados de la FAES*,

which, with a total investment of 77.5 million Colones, benefitted over 1,500 families.

- 3.7 **FUNDASAL**, a non-profit organization created in 1968, has as its objective the promotion of development and social change among the poorest communities of El Salvador. The institution has four major programs: (i) Technical/Building (Reconstruction of "asentamientos precarios" and new housing); (ii) Education/Social Development (training and organization for self-building and legal and administrative support for ownership); (iii) Social and Economic Development (Development of community initiatives; including artisanal marketing and an alternative materials production center); and (iv) research.
- 3.8 Since 1970, FUNDASAL has completed 161 projects and 23,642 houses. A total of 23,642 families and 146,583 individuals in 11 of the country's 14 Departments have benefitted

D. Inter-institutional Coordination

- 3.9 To facilitate project execution, the MINED will sign cooperation agreements with the FIS and the two NGOs. These accords will govern the transfer of funds and project execution responsibility from the MINED to the participating institutions. The two agreements will help to ensure efficient inter-institutional coordination; the constitution, regulation and composition of working groups; the frequency and purpose of meetings; the presentation, analysis and execution of works; organization for the supervision of works; procedures for the resolution of conflicts; etc. As a condition prior to first disbursement, the GOES will submit for the Bank's approval the signed accords described above.

E. Execution

- 3.10 Overall authority for project management and execution would be vested in the Ministry of Education. Daily management and execution of project activities will be the responsibility of the Infrastructure Division of MINED, which will be strengthened by the consultant project coordinator (referred to in Chapter II) and additional temporary professional and administrative staff. The Infrastructure Division will coordinate inter-institutional activities as described above; supervision of works; technical, administrative and financial activities related to the project; and coordination with the Bank in areas such as contractual conditions, submission of progress reports, hiring of consultants, national bidding, disbursement documentation and so forth.

1. **Annual Plans**

- 3.11 The project has been designed as a multi-annual operation, with four annual execution plans, to ensure appropriate nationwide coverage of targeted beneficiaries and achievement of benchmarks.

Annual meetings will take place between MINED/Infrastructure Division and the Project Team, during which project execution will be evaluated in terms of: (i) completion of works of the previous year annual plan; (ii) achievement of benchmarks; and (iii) project social impact. **Presentation of the annual plan (including allocations of works among the FIS and the two NGOs) for the first year of project execution is a condition prior to the first disbursement.**

## **2. Procurement of Goods, Works and Consulting Services**

- 3.12 Procurement of goods, works and consulting services will be carried out in accordance with the procurement policies and procedures established in Annexes B and C of the Loan Contract. The thresholds above which international competitive bidding is mandatory are: US\$250,000 for goods; US\$2,000,000 for works; and US\$200,000 for consulting services. These thresholds are justified considering that in similar projects, international bidders participate in bids above said thresholds. For bids of amounts below the thresholds national legislation will apply. Annex I shows the procurement plan for the project.
- 3.13 Given the limited capacity of MINED, execution of all the construction projects would be the responsibility of FIS and the two NGOs - HABITAT and FUNDASAL. **It is recommended, as an exception to the selection procedures of open competition, that FIS and these two NGOs be hired without competition.** The referred agencies will carry out any procurement or other required activities, observing the procedures of the Bank and, for smaller amounts, those set out in Annex I. The proposed contracting is in accordance with chapter GS-403 of the Procurement Manual. The justification for hiring these three entities without competition is based on a technical competitive advantage (see paragraphs 3.3 to 3.9) as follows: (i) they have experience of working throughout El Salvador with the poorest sectors of the population and with demobilized persons following the end of the conflict, especially in housing and basic urban infrastructure; (ii) the personnel to be employed in the Bank financed project is the same personnel that worked in the projects in (i) above; (iii) they are experienced in promoting community participation in the finishing and operating of community infrastructure; and (iv) FIS and the MINED have ample and excellent working experience with these NGOs and the reports and results have been rated excellent.
- 3.14 In accordance with the special procedures for small scale procurement set out in a special appendix to the loan contract (in addition to the standard procedures), works whose total cost falls below US\$100,000, FIS and the NGOs will carry out the supervision and administration of all contracts, **using direct procurement.** For works above US\$100,000 and below the threshold, FIS and the NGOs will oversee the contracting process, **using local competitive bidding.** The procurement of equipment will be achieved through an

international competitive bidding process. The hiring of consultants will be done in compliance with the Bank's existing policies and procedures. The following is a more detailed presentation of procurement of goods and services activities.

### 3. Execution Period and Disbursement Calendar

- 3.15 The proposed period for project execution and loan disbursement is four years. The annual works and maintenance plans would serve as the basis for project execution planning and for the Bank's annual supervision reviews. The tentative disbursement schedule is as follows:

Table 3.1  
CALENDAR OF DISBURSEMENTS  
(US\$millions)

| Source  | Year 1 | Year 2 | Year 3 | Year 4 | TOTAL  |
|---------|--------|--------|--------|--------|--------|
| IDB/OC  | 17.75  | 23.75  | 11.75  | 5.75   | 59.00  |
| IDB/FSO | 0.70   | 0.10   | 0.10   | 0.10   | 1.00   |
| Local   | 1.35   | 1.35   | 1.35   | 1.45   | 5.50   |
| TOTAL   | 19.80  | 25.20  | 13.20  | 7.30   | 65.50  |
| %       | 30%    | 38%    | 20%    | 12%    | 100.0% |

### 4. Bank Supervision

- 3.16 The Bank will supervise the execution of the project through the Country Office in El Salvador (COF/CES) and through annual reviews involving technical supervision missions by the Project Team, to examine project progress, achievement of targets and work plans for the previous year and analysis and approval of annual plan for the following year. If, as a result of these reviews it is determined that adjustments in the project are necessary, the Borrower and the Executing Agency will agree to implement such modifications.

### 5. Accounting and Auditing

- 3.17 MINED will establish and maintain adequate accounts and records in conformity with established accounting practice. These will be audited at the end of each fiscal year by a qualified firm of independent auditors acceptable to the Bank. The costs of auditing are the responsibility of the GOES.

### 6. Ex-post Evaluation

- 3.18 In addition to the annual project evaluations which will be made of project progress, the MINED has a system of assessing student performance which will form the basis of measuring the educational

impact of the project. The assessment of pupils will include as a factor whether the school they attend is one of the schools included in the project. The Geographic Information System which will be set up will provide a method for the MINED to regularly examine the conditions and performance of schools.

#### IV. VIABILITY, BENEFITS AND RISKS

##### A. Viability

###### 1. Economic

- 4.1 The economic analysis of the project has four aspects: (i) micro (size of school) and macro (size of project) dimensioning and selection of the most cost effective alternatives from the range of possibilities for providing space; (ii) determining cost limits and analyzing costs of providing space at lower densities of population in rural areas; (iii) the total cost feasibility of the overall program of school infrastructure of which this loan forms a part; and, (iv) the income thresholds for poverty targeting.

##### B. Dimensioning and Cost Effectiveness of Alternatives

- 4.2 The three alternatives are repair or replacement where space is sufficient and construction of additional space where current capacity is inadequate. This analysis applies to the 595 schools in the FIS pipeline, the 211 schools being repaired for the technology mediated education project (ES-0108) and the 17 schools being constructed for the EDUCO project. The criteria for dimensioning schools in the project and the selection of the most cost effective alternative has been determined by MINED/FIS guidelines for evaluation of school infrastructure projects.
- 4.3 The first criterion is that schools are only repaired, replaced or constructed to meet proven current demand, based on enrollment at the school and the availability of space and classes offered at the nearest alternative school. Nationally, the classroom area norm is 52m<sup>2</sup>, the maximum number of pupils per room is 30 in preschool and 40 in primary grades, giving a maximum area per pupil of 1.7m<sup>2</sup> for preschoolers and 1.3m<sup>2</sup> for primary schoolers. To qualify for works in the project, single storey schools must meet the following minima: 20 pupils per shift in rural preschools and primary schools; 25 pupils per shift in urban preschool classes and 30 in primary urban classes. Two storey preschools will not be built in rural areas and two level primary schools will only be built when there is insufficient space for one level structures. In urban areas, two storey schools must have 35 pupils per shift per class.
- 4.4 The second criterion requires that school spaces are adequate to meet current norms. Rooms which already have at least 52m<sup>2</sup> or 1.3m<sup>2</sup> per pupil will normally only be repaired. The same applies to rooms having less than 52m<sup>2</sup> but which still have at least 1.3m<sup>2</sup> per pupil. When a room has less than 52m<sup>2</sup>, more than 40 pupils and less than 1.3m<sup>2</sup> per pupil it will be rebuilt to bring it up to 52m<sup>2</sup>. When a room is below the norm and the number of pupils is also below 40, it will be replaced to bring the size to 1.3m<sup>2</sup> per pupil. Classrooms will only be added when there are more teachers

than rooms. Classrooms will be added to equal the number of teachers and class groups. <sup>15/</sup>

C. Cost Thresholds and Cost Analysis at Lower Densities of Population

- 4.5 Tables 4.1 and 4.2 set out the indicators for cost effectiveness analysis in the different categories of school. Under the project, costs are revised annually to reflect price rises and the variation of costs with location and remoteness. Urban construction cost is the base cost of school building.

Table 4.1  
COST MAXIMA FOR PRESCHOOL EDUCATION (US\$) <sup>16/</sup>

| INDICATOR                           | URBAN       |        | RURAL       |        |
|-------------------------------------|-------------|--------|-------------|--------|
|                                     | EXP/REPLACE | REPAIR | EXP/REPLACE | REPAIR |
| CLASSROOM CON. COSTS/M <sup>2</sup> | 190         | 139    | 218         | 159    |
| TOTAL INV./CLASSROOM                | 14922       | 10893  | 16248       | 11861  |
| INV./INF./PUPIL PLACE               | 597         | 436    | 812         | 593    |
| UTILIZ./CLASSROOM (pupils)          | 25          | 25     | 20          | 20     |
| INV./SEAT                           | 23          | 23     | 23          | 23     |
| INV./OTHER FURN & EQUIP / CLASSROOM | 419         | 419    | 384         | 384    |
| MAX % EXTERIOR WORKS                | 30%         | 30%    | 30%         | 30%    |
| ANNUALIZED INV/PUPIL                | 76          | 77     | 104         | 105    |
| INV./OTHER FURN/ADMIN.              | 2054        | 2054   | 2054        | 2054   |

Table 4.2  
COST MAXIMA FOR BASIC (Grades 1 -9) EDUCATION (US\$)  
Single Storey School (in parenthesis two-storey school)

| INDICATOR                           | URBAN         |               | RURAL       |        |
|-------------------------------------|---------------|---------------|-------------|--------|
|                                     | EXP/REPLACE   | REPAIR        | EXP/REPLACE | REPAIR |
| CLASSROOM CON. COSTS/M <sup>2</sup> | 190 (237)     | 139 (142)     | 217         | 158    |
| TOTAL INV./CLASSROOM                | 14045 (17402) | 10253 (12074) | 16163       | 11069  |
| INV./INF./PUPIL PLACE               | 468 (497)     | 342 (363)     | 758         | 553    |
| UTILIZ./CLASSROOM (pupils)          | 30 (35)       | 30 (35)       | 20          | 20     |
| INV./SEAT                           | 28            | 28            | 28          | 28     |

<sup>15/</sup> It should be noted that where shifts operate the same teacher is usually employed to teach both shifts, thus the equation of teachers and classrooms will not lead to overcapacity.

<sup>16/</sup> Annualized investment costs have been discounted at 12% over 10 years for repairs and 25 years for construction.

|  |         |         |      |      |
|--|---------|---------|------|------|
| INV./OTHER FURN & EQUIP /<br>CLASSROOM | 384     | 384     | 384  | 384  |
| MAX % EXTERIOR WORKS                   | 30%     | 30%     | 30%  | 30%  |
| ANNUALIZED INV/PUPIL                   | 60 (63) | 59 (64) | 97   | 98   |
| INV./OTHER FURN/ADMIN.                 | 2075    | 2075    | 2075 | 2075 |

- 4.6 A sample of schools evaluated technically, financially and economically for project analysis showed variation in costs between the communities' estimates and final, technically FIS-evaluated costs of 38.7%. This variation is consistent with FIS experience and estimates and has been added to unevaluated proposals to estimate the total costs of construction.

D. Total Cost Feasibility and Long Term Needs.

- 4.7 This project addresses 32% of the country's schools most urgently needing upgrading at a total cost of US\$55 million. With the completion of this project and other infrastructure projects under execution and preparation, the GOES will have upgraded 87% of the schools in need of repair, replacement or expansion. The MINED will now be focusing its attention on preventive maintenance and later, on small community based works to bring the remaining schools up to standard. It is financially feasible therefore for the country to upgrade its school stock within ten years at a cost of less than an additional US\$ 30 million and maintain it with an additional annual outlay estimated at US\$1 million.

1. Calculation of Incremental Recurrent Costs

- 4.8 The project will require that the MINED has designated teachers and operating funds for each class, and the teachers are already on the payroll and classes already meet. The exceptions are the 17 new EDUCO schools with 51 classrooms which require an additional 51 teachers for the 102 class groups (*secciones*) at an annual cost of ₡3,114,300 (US\$358,000) <sup>17/</sup>. In addition, capitation costs per pupil of US\$40 for an additional 2,550 pupils amount to US\$102,000. The improvements to five high schools and three institutes will increase their teaching capacity by an estimated 44,000 class hours per year at an annual teaching cost of US\$120,000 per year and operating cost of US\$110,000. Students at this level provide books and materials. The project adds US\$468,000 per annum to costs.
- 4.9 The cost of the maintenance fund has been dimensioned on the basis of the evaluation of a community based program of preventative maintenance, extrapolated to the national level. The evaluation covered 317 of the schools which participated in the period

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<sup>17/</sup> This calculation includes the base salary for teachers from a range of seniority (\$4,390 to \$5,980), fringe benefits (7.5%), annual bonus (\$200) and additional pay for teaching a second shift (\$1,380).

September 1992 to December 1995. The average direct cost averaged US\$660 per school and included common areas such as corridors and offices. It covered such minimum cost activities as cleaning the school and removing rubbish, as well as painting, repairs to roofs, windows, doors and perimeter walls and replacement of routine spares. The country has 4,560 public schools, of which 25% would participate in the funding project each year of execution and every fourth year thereafter. Once initiated, much of the work would be carried out by volunteers, including the pupils. The pilot fund would provide US\$750,000 annually. The evaluation also indicated the need for technical assistance, described in paragraph 2.13 at a cost of US\$280,000 over the first two years of execution.

## 2. Financial

- 4.10 Table 4.3 shows the financial impact of the loan for education infrastructure. (Annex I shows the overall impact of borrowing for education.) External loans have an impact both on the budget of the sector and of the nation and on the level of external indebtedness. The effect on the sector budget is through the requirement for local counterpart and the increase in recurrent costs which the project generates, and which have an opportunity cost. The loan affects the national budget to the extent that it requires an increase in taxation if an increase in the fiscal deficit is to be avoided. This assumes that no cuts are made in the budgets of other sectors to meet the local counterpart and the interest and loan servicing which the loan will generate (even though these latter demands are not immediate). Finally the loan affects the external debt capacity of the country.
- 4.11 Based on the education sector spending targets, to devote 3.4% of GDP to education within five years, the analysis takes into account the recent evolution and projections of the main macroeconomic indicators. These are the growth in GDP, the level of the fiscal deficit and the level of external debt. The analysis assumes an average rate of growth rate of GDP of 5% and a fiscal deficit of 2.3% of GDP for the next five years, as well as an annual growth of the national budget of 10% (the average for the past four years).
- 4.12 Table 4.3 shows that the impact of the education infrastructure loan over the next four years is minimal. In effect, the amount of the loan, including the local counterpart represents less than 5% of the budget of the education sector. However it is important to underline that the additional recurrent costs, which require the allocation of additional resources, represent less than 0.4% of the public sector deficit and less than 0.6% of the education budget.

Table 4.3.  
FINANCIAL IMPACT (US\$ millions)

|  | 1998  | 1999  | 2000  | 2001  | 2002  |
|--|-------|-------|-------|-------|-------|
| GDP  | 12615 | 13776 | 14969 | 16267 | 17676 |
| External Debt  | 2805  | 2996  | 3143  | 3416  | 3712  |
| FE Reserves at the CRB   | 1600  | 1850  | 1940  | 2050  | 2140  |
| Fiscal Deficit (%GDP)  | 3.1   | 2.6   | 2.3   | 1.9   | 1.9   |
| National Budget  | 1930  | 2098  | 2307  | 2538  | 2792  |
| Education Budget   | 312   | 441   | 494   | 553   | 583   |
| Education Budget/GDP (%) (1)   | 2.5   | 3.2   | 3.3   | 3.4   | 3.3   |
| Recurrent Costs/National Budget (%) (2)  | 0.09  | 0.07  | 0.06  | 0.05  |       |
| Recurrent Cost/Educ. Budget (%)  | 0.6   | 0.3   | 0.2   | 0.2   |       |
| Recurrent cost/fiscal deficit  | 0.4   | 0.4   | 0.4   | 0.4   |       |
| (1) 1998 Proyecto de Presupuesto. 1999-2002 Metas.<br>(2) Includes incremental recurrent costs, credit fee and supervision fee.<br>Disbursement period of 4 years.<br>Source: Central Bank and Ministry of Education |       |       |       |       |       |

- 4.13 Furthermore, the external debt of the country will not be greatly affected; the loan would represent less than 0.6% of the total debt. It should be noted that El Salvador's external debt is the lowest in Central America, both in terms of its absolute size and the percentage of GDP which it represents. In 1997, according to preliminary estimates, the debt represented 23% of GDP and debt servicing 2.7% of GDP and 16% of export income. Furthermore, the combined effect of economic stabilization, the growth of the maquila sector, foreign investment and remittances from Salvadorians overseas has resulted in strong foreign reserve at the Central Reserve Bank equal to 4.4 months of total import coverage.
- 4.14 Although the local contribution to the project has an insignificant impact on both the budget and fiscal deficit, the achievement of the national education targets implies pressure on the tax collection system. Taking a tax collection target of 11% of GDP, the education sector budget represents a growing share of tax revenue (from 22.9% in 1997 to 30.9% in 2001). This indicates the need for more effort in the collection of taxes or redefinition of priorities in other sectors. To the extent that the budgets for education in particular and the social sectors in general are rising faster than revenue collection from taxation, there will be more competition for resources which implies a trade off among the ministries.

Table 4.4  
**EDUCATION SECTOR. SOURCES AND USES OF FUNDS 1998**  
(millions Colons)

| Uses and Sources   | Current costs | Capital costs | Local support | Total         |
|--|---------------|---------------|---------------|---------------|
| Public Treasury  | 2260          | 62.1          | 14 (1)        | 2336.1        |
| External Financing   | -             | 403.7         | -             | 403.7         |
| <b>Total</b>   | <b>2260</b>   | <b>465.8</b>  | <b>14</b>     | <b>2739.8</b> |
| (1) Educational Infrastructure Project.<br>Source: Proyecto de Presupuesto General de la Nación 1998 |               |               |               |               |

### 3. Institutional Feasibility

- 4.15 Although El Salvador is using several loans to finance its education reforms and developments, the conceptualization of the program itself is clear and the GOES has demonstrated ample capacity to manage the activities of several funding agencies simultaneously to a common end. The disbursement record of existing loans indicates a high level of competence and the timely availability of counterpart funds. Basic Education Modernization 879/OC-ES for US\$37.3 million was approved in September 1995, became eligible in June 1996 and is now 26.54% disbursed. The civil works component remains at about 13% disbursement. The rate of disbursement is satisfactory; in 16 months over one quarter of the funds have been disbursed. In the civil works component there has been substantial progress not only in tendering and contracting but also in construction. However concerns about the limited capacity of the MINED to directly execute civil works led to the measures described in paragraphs 2.2 to 2.6 and 3.2 to 3.10, to reduce the risk of slow disbursement and the analysis in 4.22 below.

#### E. Social and Environmental Impact

- 4.16 The social impact will be to mitigate poor school conditions and limited educational opportunities for poor children in marginal areas. All the schools in the former FIS pipeline will be subject to the social analysis of the FIS. This requires that 65% of the populations served in the catchment area of the school have a per capita annual income below the poverty level of 6000 colones (US\$690). This requirement covers 75% of the schools in the project. The project will promote community and parent participation in the construction and maintenance of schools, through the development of the ACE model in which women are key participants.

- 4.17 The project was considered by the Technical Review Group of the Committee of Environmental and Social Impact on December 5, 1997 and its recommendations have been incorporated.
- 4.18 The environmental impact of the project is not expected to be adverse. The works to be financed are: (i) small scale construction and general rehabilitation of schools: schoolrooms, administrative areas, sanitary services, etc.; and (ii) construction and/or adaptation of existing spaces. Physical works will be done in the case of large premises through private NGOs, in the case of small projects through the FIS, and in the case of tiny works, through the communities themselves. The construction norms for schools used by the FIS have been provided by the MINED and will be followed for all construction undertaken in this project. However, the assessment of needs, to be carried out during project preparation, will anticipate any environmental impact.
- 4.19 The FIS, the main executor of the project, has a technically sound and easily implemented environmental control system. The system is based on the Environmental Impact Forms (EIF) which make clear the preventive and mitigatory measures needed both during and after execution. For school construction and repair, a FIS Environmental Impact Mitigation Manual provides detailed guidelines to the formulators and executors of projects. In addition, El Salvador has a Ministry of the Environment to ensure that environmental regulations are complied with. A specialist appointed by the project will ensure compliance with environmental requirements.

F. Benefits

- 4.20 It is calculated that 250,000, predominantly poor children who attend the participating schools will benefit from the project. In addition, the MINED will have a better system by which to monitor and maintain its educational patrimony. In the long term, savings will accrue due to the improvement in maintenance and the reduced need for major repair and rehabilitation.
- 4.21 Recent experience of school construction and repair in El Salvador and elsewhere has shown that enrollment increases beyond what was originally planned both by attracting children who did not previously enroll but more importantly through retaining a higher percentage of the cohort in school. It is currently estimated that repeating and dropping out indirectly cost El Salvador 140 million colones (US\$16 million) annually. However, it is difficult to separate the effects of construction from other improvements in education.

G. Risks

- 4.22 The main risk faced by the project lies in the implementation capacity of the GOES. A number of steps have been taken to ensure timely implementation. The construction of schools is to be divided between the FIS and two NGOS. According to a study of the capacity of the FIS to execute works, the monthly approval and disbursement management capacity, based on prior experience is an average of US\$2.1 per month with a peak of US\$3.7 million. Recently the rhythm has slowed because the FIS has less funds available. The annual demands of the new FIS and the Education Infrastructure project is shown in Table 4.5. Thus, only in year 2 is the minimum capacity of the FIS reached.

Table 4.5  
**PROJECTION OF WORKLOADS OF THE GOES AGENCIES <sup>18/</sup>**  
(value of contracts managed in US\$ millions)

| Project   | Year 1 | Year 2 | Year 3 | Year 4 | Total |
|-----------|--------|--------|--------|--------|-------|
| FIS       | 11.35  | 15.14  | 7.57   | 3.78   | 37.85 |
| ES-0110   | 13.19  | 13.19  | 13.19  | 13.19  | 52.76 |
| TOTAL     | 24.54  | 28.33  | 20.76  | 19.97  | 90.61 |
| Per Month | 2.05   | 2.37   | 1.73   | 1.66   | 1.89  |

- 4.23 In addition, it should be noted that the amounts that ES-0110 will contract with the FIS are less than this, since part of the works will be administered by each of the two NGOS. The average size of work which the FIS will contract will be within their prior range of experience.

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<sup>18/</sup>

From "Análisis de Desempeño Institucional y de Capacidad de Procesamiento del FISDL", Oct 1997, IDB Consultant's report.

**EDUCATIONAL INFRASTRUCTURE PROJECT  
(ES-0110)  
PROCUREMENT PLAN**

| MAIN PROCUREMENT ACTIVITIES  | FINANCING           | TYPE          | PRE-QUALIFICATION | PUBLIC NOTICE               |
|--|---------------------|---------------|-------------------|-----------------------------|
| Component 1. Infrastructure construction and reconstruction.<br><br>US\$36.7 million (Average of individual contracts = US\$100,000)   | 90% IDB<br>10% GOES | DC<br>NPB     | -                 | -                           |
| Component 2. Repair and rehabilitation<br><br>US\$11.8 million (Average of individual contracts = US\$100,000)   | 90% IDB<br>10% GOES | DC<br>NPB     | -                 | -                           |
| Component 3. Materials, Equipment and Furniture<br><br>US\$5,2 million   | 90% IDB<br>10% GOES | ICB           | Yes               | Yes<br>4th<br>quart<br>1998 |
| Component 4. National Preventative Maintenance Project<br><br>US\$3.0 million (Contracts not to exceed US\$10,000)   |                     | DC            | -                 | -                           |
| Component 5. Institutional Strengthening (Training and consultancies)<br><br>US\$0.9 million (FSO/Local Counterpart)<br>- Individual contracts not higher than US\$100,000<br>- Geographic Info System | 100% IDB            | DC<br><br>ICB | <br><br>Yes       | yes<br>1st<br>half<br>1999  |

NPB - National Public Bidding  
ICB - International Competitive Bidding  
DC - Direct Contracting

RGII-ES116P  
ES-0110  
Original: Spanish  
Appendix I

## **PROPOSED RESOLUTION**

**EL SALVADOR. LOAN \_\_\_/OC-ES TO THE REPUBLICA DE EL SALVADOR  
(Education Infrastructure Program)**

**The Board of Executive Directors**

### **RESOLVES:**

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the República de El Salvador, as Borrower, for the purpose of granting it a financing to cooperate in the execution of an Education Infrastructure Program. Such financing will be for the amount of up to US\$69,840,000, from the resources of the Single Currency Facility of the Bank's Ordinary Capital, and will be subject to the "Terms and Financial Conditions" and to the "Special Contractual Conditions" of the Executive Summary of the Loan Proposal.

**PROPOSED RESOLUTION**

**EL SALVADOR. LOAN \_\_\_/SF-ES TO THE REPUBLICA DE EL SALVADOR  
(Education Infrastructure Program)**

**The Board of Executive Directors**

**RESOLVES:**

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the República de El Salvador as Borrower, to cooperate in the financing of an Education Infrastructure Program. Such loan will be for the amount of up to US\$1,100,000, in colones of El Salvador which are part of the resources of the Bank's Fund for Special Operations, and will be subject to the "Special Contractual Conditions" and the "Terms and Financial Conditions" of the Executive Summary of the Loan Proposal.