

## PREPARATION OF THE EDUCATION REFORM PROGRAM

(NI-0090)

### EXECUTIVE SUMMARY

**BORROWER:** Government of Nicaragua

**EXECUTING AGENCY:** Ministry of Education, Culture and Sports (MECD)

**AMOUNT AND SOURCE:** IDB: (FSO) US\$ 9.4 million  
Local financing: US\$ 1.0 million  
Total: US\$10.4 million

**TERMS AND CONDITIONS:** Amortization period: 40 years  
Disbursement period: 4 years  
Interest rate: 1% during the grace period and 2% thereafter  
Inspection and supervision: 1%  
Credit fee: 0.5%

**OBJECTIVES:** The objective of the project is to establish a solid basis for reforming the secondary education system in Nicaragua, as part of a policy to promote quality and equity in education. The project is conceived as a first phase, the results of which will help define larger-scale investments in the future in support of the Nicaraguan government's educational initiatives. (Paras. 2.1, 2.2)

**DESCRIPTION:** The project will finance the following components: (i) a process of dialogue and design to lay the basis for reforming the structure and curriculum of secondary education; (ii) alternative applications of educational technologies, including a start to three pilot activities: *telesecundaria* or distance secondary education, self-training modules, and interactive radio education; (iii) a pilot program for pre-school education, intended to raise the level of preparation of children entering the first grade of primary school and to distribute teaching materials to existing pre-school centers; and (iv) an incentive program to stimulate educational demand and supply through the *Fondo Social Suplementario* (FSS, the Supplementary Social Fund). (Paras. 2.36-2.44).

**PROJECT RELATIONSHIP WITH THE BANK'S SECTOR AND COUNTRY STRATEGY:** To date the Bank has never made an education loan to Nicaragua (Country Paper, 1996, GN-1931-1). The priority accorded the education sector, and this project in particular, was confirmed in the wake of the emergency caused by Hurricane Mitch and at the

Consultative Group meeting in Washington, December 10-11, 1998. In keeping with its assessment of the sector, the Bank is promoting a long-term, phased strategy within the framework of a national education plan that will guide the formulation of policy and actions in the sector. The Bank will support the government in drawing up such a master plan. The Bank's own efforts will be concentrated on strengthening the secondary level and integrating it with other levels of the education system. This multifaceted strategy will involve two main phases: (i) designing secondary education reform and identifying cost-effective approaches (the program proposed here), and (ii) implementing the reform in the secondary sector.

**ENVIRONMENTAL/  
SOCIAL REVIEW:**

The suggestion of including an environmental consultant to ensure integration of this theme in the reformed secondary curriculum was adopted as part of the proposed project.

**BENEFITS:**

Reinforcing decentralization and promoting participation by parents and community leaders will give civil society a greater sense of ownership over the education process, and will make that process more efficient and effective. Introducing new applications of educational technologies into rural areas will allow for greater coverage and quality by reaching out to poor people who until now have had only a limited role in development. The *telesecundaria* program will benefit 5,400 young people (at least 50% of them women) in rural areas, and the interactive radio program will benefit 7,875 students over a three-year period. Access to a quality pre-school preparation will be of direct benefit to 250 children that will take part in the pilot program. A comparative evaluation of different models of pre-school education will allow the government to make informed decisions for expanding the coverage of pre-school services, at lower cost and higher quality. (Paras 4.19-4.25).

**RISKS:**

The most significant risk to the success of the education program over the longer term lies in the country's capacity to keep to its commitments under the macroeconomic adjustment program, which calls for imposing sharp restrictions on public spending while redirecting scarce resources to the social sectors. Financing for the social sectors, however, is expected to remain stable or to increase in proportion to GDP, thanks to the funding that will be channeled through the FSS, and the resources that

will flow to the country through its participation in the HIPC initiative.

**SPECIAL  
CONTRACTUAL  
CONDITIONS:**

1. Conditions prior to the first disbursement. The following must be presented to the Bank's satisfaction:

- (i) Evidence of constitution of (a) the PCU (Project Coordination Unit), endowed with the personnel previously agreed with the Bank (para. 2.45, 3.5), and (b) the project's Steering Committee (para. 3.2).
- (ii) Final version of the project operating regulations, according to the preliminary outline agreed with the Bank (paras. 3.4, 3.14, 3.15).
- (iii) Evidence of signature of the agreement between the executing agency and the *Fondo de Inversión Social de Emergencia* (FISE, the Emergency Social Investment Fund) to build the classrooms that will be used in the telesecundaria pilot program component 2 (para. 2.15).

Notwithstanding the conditions stated above, once the loan contract comes into force and as soon as condition (i) above and the conditions prior to the first disbursement stipulated in clauses (a), (b) and (e) of article 4.01 of the General Conditions have been met, disbursement of up to US\$100,000 will be permitted before the other conditions are met, so as to allow the executing agency to initiate its activities and comply with prior conditions (para. 3.25).

2. Other special contractual conditions

- (i) Prior to the first disbursement to the FSS for execution of component 4 (contributions to the Supplementary Social Fund), the borrower must present evidence to the Bank's satisfaction that:
  - a. An inter-agency agreement has been signed between the executing agency, the President of the FSS Coordinating Council and the Ministry of Finance, establishing the specific conditions under which the FSS will operate in executing the project (para. 3.15);

- b. The FSS Coordinating Council has approved the initial report containing the annual work plan (para. 3.16);
  - c. The 3-month disbursement plan has been approved by the Ministry of Education (para. 3.17).
- (ii) Agreement will be reached, in addition to the conditions applicable to such operations, on project auditing, reporting, and monitoring, as well as establishment of a revolving fund for up to 6% of the financing.

**POVERTY TARGETING  
AND SOCIAL  
CLASSIFICATION:**

Pursuant to the provisions of the Eighth Replenishment (GN-1964-3) this project qualifies as a poverty-targeted operation.

The operation qualifies as targeted at reducing poverty and increasing social equity, as described in the key objectives for Bank activity contained in the report on the Eighth General Replenishment exercise.

**EXCEPTIONS TO  
BANK POLICY:**

None.

**PROCUREMENT:**

The procurement of goods and consulting services and the construction of physical works will be conducted in accordance with Bank procedures. International competitive bidding will be required for purchases exceeding US\$250,000 in the case of goods; US\$200,000 in the case of consulting services; and US\$1,000,000 in the case of works (paras. 3.24 and 3.25).

## I. FRAME OF REFERENCE

### A. Background

- 1.1 The education sector in the country's social strategy. Consistent with the stipulations of adjustment programs and the commitments established for the social sector, the government of Nicaragua has assigned priority to education expenditure. Investment at the primary level has been high. Now, after many years of concentrating resources almost exclusively on primary education, the government has decided to begin investing at the secondary level, with a view to reforming and updating this subsector to meet the country's current needs. Making a reality of this commitment to the education sector will require: (i) a high degree of political will to increase the level of spending in the sector; and (ii) the adoption of a long-term vision to guide the use of available resources. The government has recognized the need for a national education master plan setting out strategies and policies for the sector over the next fifteen years, and it has requested assistance from the IDB in this task. The government is keeping to its policy of decentralization and is determined to continue the process of fostering school autonomy initiated in 1993.
- 1.2 Since 1993, the concept of school autonomy has been the principal means of decentralization and has sought to encourage community participation in raising financial resources and administering human resources. Schools participate in the autonomy program on a voluntary basis: if the majority of teachers are in agreement, the school's council will request the MECD to grant the school autonomy. The MECD will thereupon delegate all administrative responsibilities to the school council (including the power to hire and dismiss teachers) and will transfer to it the funds to cover salaries, current expenditures, and minimum maintenance costs. The council may raise additional funds through student fees, parents' contributions, community donations, etc. The council has full authority to decide on the use of additional resources. Approximately half of these resources are devoted to improvements to physical plant and the purchase of educational materials. Most of the autonomous councils have devoted at least half of their own funds to incentive pay for teachers. These incentives are paid on the basis of a formula that takes into consideration student attendance records and participation in extracurricular activities. These incentives have proven to be very attractive. In the poorer communities, the government provides supplementary grants to increase funds available for the teacher incentive program, using a poverty index to determine needs in each case.
- 1.3 Currently 10% of public primary schools and 67% of public secondary schools have autonomous status, representing respectively 47% and 81% of total enrollment at each level. The notion of autonomy has

encountered resistance within the teachers' union, however, and the process has had to be implemented gradually.

- 1.4 **Performance of the sector.** Despite the progress that has been made in terms of coverage and administration at the primary education level, internal efficiency is still low, and repetition and dropout rates remain high. The administrative changes to the system have not been accompanied by any substantial improvements in budgets or in the upgrading of human resources.
- 1.5 The system is facing severe financial constraints. Spending per pupil at the primary level is among the lowest in Central America and the budget in general falls short of meeting needs. As a result, most state schools lack proper infrastructure, teaching materials and academically qualified teachers. There are no clear mechanisms for establishing priorities in educational spending: thus, while higher education accounts for only 2.9% of student enrollment, it receives a third of the total education budget. <sup>1/</sup> This high proportion is explained by the fact that 6% of the entire national budget is allocated to the universities by mandate of the Constitution. There is a glaring discrepancy in both the quality and the coverage of the education offered in urban and rural areas. Although figures suggest that primary enrollment in rural and urban areas reflects a similar proportion of the total population, in fact many rural schools do not offer a complete primary education. Moreover, access to secondary education is severely limited in rural areas, which account for only 7% of total secondary enrollment. In terms of quality, the human resources available in rural schools (principals and teachers) generally have fewer years of formal study (and sometimes none) and less experience and training.
- 1.6 The lack of suitably qualified human resources is clear from an analysis of the teaching body. (Successive stabilization and structural adjustment programs, with their attendant expenditure cutbacks, have had an impact on teachers' salaries, and as in many other countries teachers have found themselves bearing the brunt of expenditure restraint policies). The low and declining level of teachers' incomes has driven many qualified staff to seek employment in other sectors of the economy, and their place has often been taken by people with no proper academic preparation. Sources within the MECD indicate that 35% to 40% of teachers nationwide have no teaching certificate. In some rural areas this proportion is as high as 60% or even 70%. A primary school teacher receives a basic monthly salary equivalent to US\$46. A teacher at the secondary level receives the equivalent of US\$58. One of the great challenges facing the system is to offer salaries that will make it possible to reduce

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<sup>1/</sup> IDB Nicaragua country paper.

the high proportion of teachers without certificates and encourage them to upgrade their professional qualifications.

- 1.7 Education services are provided both by public and private entities, and many of the latter are subsidized by the state. State schools account for 84% of primary enrollment, 68% of secondary, and 42% at the preschool level. Secondary education consists of two cycles: (i) the basic three-year cycle; and (ii) the baccalaureate cycle, which has still not been diversified. There are four types of classes: day, evening, distance (or Saturday), and adult. Secondary education in general suffers problems of access, low levels of internal efficiency, and poor quality. The MECD reports that the quality of education at this level is very low, with high degrees of absenteeism among students and teachers alike, a lack of teaching materials, and major shortcomings in infrastructure. The teaching body has seen a sharp drop in its incomes and many qualified teachers have left, to be replaced by personnel without adequate academic preparation. Lack of professional qualification among secondary school teachers has a substantial effect on the quality of education and leads to high rates of student failure and dropout.
- 1.8 Gender-based data show a higher participation rate among girls than among boys at the secondary level, both in urban and in rural areas. Females represent about 54% of enrollment at this level. Nevertheless, an analysis of study patterns shows that the percentage of females is greater in day school and Saturday programs, while men are more heavily represented in night school programs.
- 1.9 In terms of its social relevance, education does little to provide the training needed for a productive life. In fact, secondary education continues to be focused on preparing students for university, although only a small fraction of its graduates go on to higher learning. In terms of individual relevance, secondary education has failed to promote economic and social mobility or integration. Moreover, there is little or no articulation between formal academic education, technical training (offered by the National Technology Institute, NATEC) and higher education.
- 1.10 **Efficiency of the sector.** Total enrollment in basic general education stands at a little over 1 million students, of whom 80% attend public establishments. The gross coverage rate for primary education is 97.4%. Secondary education covers 48% of the age group between 13 and 17 years, while the preschool level covers 23% of children between the ages of 4 and 6.
- 1.11 At the primary level, the repetition rate is particularly high in the first two grades. An analysis of student flows shows that only 23% of students leave primary school without repeating a grade, and fewer than 50% complete grade 6. Some 93% of students completing grade 6 go on to secondary education, but the dropout rate in the

first year of secondary school is very high (18.2%). Only 40% of students who begin secondary school will complete it without repeating a year, and as at the primary level, one out of every two students will fail to complete secondary instruction.

- 1.12 One of the reasons underlying the high repetition rate in the first grade of primary school is that children enter the system with no preparation. The availability of public preschool education is limited, but the country is now trying out new ways of involving parents and NGOs through the device of community preschool centers. Preschool coverage remains very low, however, and the government is interested in exploring viable alternatives for providing these services.

B. Impact of the fiscal situation

- 1.13 Nicaragua is facing a great challenge in attempting to increase social investment at a time of fiscal restraint and budget deficits. The Enhanced Structural Adjustment Facility, the ESAF, worked out with the IMF calls for adoption of a strict program of fiscal austerity. Under this agreement, the government has undertaken to freeze current public spending in nominal terms for the years 1998-2000, and thereby to reduce the state share of GDP from 23% in 1997 to 18% in 2000. At the same time, the government has undertaken to increase the proportion of domestic public spending allocated to health and education by up to 0.9% annually between 1998 and 2000. To mitigate the impact of restrictions and to meet the government's social spending goals, the Supplementary Social Fund (FSS) was established as a short-term solution for funding increased social spending. This additional spending could not in fact be achieved without the concessional help provided by the FSS. Coverage of new recurrent costs with domestic funds will begin once Nicaragua reduces its external debt payments through renegotiation of its foreign debt burden.
- 1.14 The mechanism for reducing external debt service payments is based on discussions held in Geneva in April 1998 with the Consultative Group for Nicaragua, at which time Nicaragua's participation in the HIPC initiative (Highly Indebted Poor Countries) was explored. Thanks to this initiative, the country's external debt is to be renegotiated, and approximately 80% of the debt will be forgiven, thereby releasing funds to finance recurrent expenditures in the social sector.

C. Government strategy for the education sector

- 1.15 The primary objective of the government over the next five years is to reduce poverty by stimulating rapid economic growth. It is expected that this growth will be fed from two sources: (i) over the short term, by overcoming infrastructure bottlenecks and trade deficits; (ii) over the long term, by bringing a more productive



workforce to the labor market. <sup>2/</sup> This means that investment in human capital through better education is vital. A key part of the strategy towards that end is to decentralize education with a view to: (i) orienting education programs towards specific local needs and opportunities; (ii) ensuring greater efficiency; (iii) democratizing the system by sharing education responsibilities with the community (parents and other members of the community).

- 1.16 With respect to the overall education system, the MECD is committed to establishing a National Education Plan for the long term. After years of focusing its efforts on improving primary education, the government is now determined to reform the secondary education system to enhance its quality, output and relevance. The intent is to bring education more closely into line with the needs of students, civil society and the labor market, and to make it more flexible by introducing study systems that will allow high-quality and low-cost education to be provided in rural areas. In this context, special attention is being devoted to consolidating and broadening educational decentralization (school autonomy). With respect to the curriculum, the government strategy places the stress on moral and ethical values. These values include personal discipline and responsibility, and above all the fostering of civic awareness based on the concept of citizenship and democracy.

D. Projects undertaken by other donors

- 1.17 In recent years Nicaragua has been the recipient of significant external cooperation. In the education sector, USAID approved the BASE project in 1993 for US\$30 million in support of primary education, including a component to improve institutional capacities at the central and local level, with particular emphasis on the decentralization process. The BASE project has also assisted with the production and distribution of teacher training materials. The project was concluded in 1998. A new project will be launched in 1999, known as Nicaragua Basic Education Training (NBET), with US\$17 million in funding from USAID. This agreement will run for four and a half years, and can be extended for a further two years. The principal objective of this new phase remains focused on improving primary education including teacher training, enhanced access to education for low-income and underserved groups, with the stress on multi-grade education, bilingual and in Spanish, and increasing community participation in the education system primarily through grants to nongovernmental organizations (NGOs). The NBET project will support administrative modernization of the MECD in terms of management, financing, human resources and other areas. In addition, it will strengthen the decentralized administration of primary education, with special attention to administration at the departmental level.

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<sup>2/</sup> Arcia, Gustavo. Financing Education in Nicaragua. IDB consultant's report, 1998.

- 1.18 In 1995 Nicaragua and the World Bank signed loan agreement 2689-NI to finance the basic education project known as APRENDE ["LEARN" in Spanish], focusing on community-based preschool and primary education. This US\$37.8 million loan includes a component in support of decentralization (training, technical assistance and equipment) and will offer incentives for teachers in autonomous schools based on an their attendance record and that of their students. It is expected to be finalized by the end of 1999. The second stage of this project will be devoted to further improving the quality, efficiency and equity of basic education through such measures as: (i) supporting the school autonomy process; (ii) providing educational materials; (iii) strengthening community-based preschool education; (iv) expanding and upgrading physical infrastructure; and (v) creating a national testing system. Other donors involved to a lesser degree in the education sector are: (i) the Netherlands, for vocational training (INATEC); (ii) Luxemburg, with scholarships to students from regular schools; (iii) the World Food Program, for rural and low-income urban schools; (iv) the European Union, in primary education; and (v) other resources that MECD has received from various sources such as Japan, KfW, GTZ, ASDI, etc.

E. The Bank's strategy

- 1.19 To date, the Bank has never made an education loan to Nicaragua (1996 country paper, GN-1931-1). The priority of the education sector and of this project in particular was confirmed in the wake of the emergency caused by Hurricane Mitch, and at the meeting of the Consultative Group in Washington, December 10-11, 1998. In keeping with its assessment of the sector, the Bank is promoting a long-term, phased strategy within the framework of a national education plan that will guide the formulation of policy and actions in the sector. The Bank will support the government in drawing up such a master plan. The Bank's own efforts will be concentrated on strengthening the secondary level and integrating it with other levels of the education system. This multifaceted strategy will involve two main phases: (i) designing secondary education reform and identifying cost-effective approaches (the program proposed here), and (ii) implementing the reform in the secondary sector. Over the last four years, the Bank has focused its efforts in Nicaragua on increasing social equity and reducing poverty. It is currently financing the Emergency Social Investment Fund (935/SF-NI), the Social Infrastructure Investment Program (1003/SF-NI), and the Integral Development Program for Early Childhood and Day-care Services in Nicaragua (973/SF-NI). Projects are now in preparation relating to health reforms, low-income housing and social welfare programs. The project proposed here is the first Bank undertaking in the area of education, and represents an initial phase that will lay the ground for further investment in the sector.
- 1.20 Over the short and medium term, the Bank's efforts will focus on: (i) fostering greater coordination between donors and the

government in order to maximize external resources; (ii) achieving greater internal and external efficiency in the education system, with special attention to secondary education; (iii) the updating of curricula, teacher training, adaptation of materials and equipment; (iv) introducing innovative approaches to delivering secondary education; (v) improving administrative and technical management of secondary education at the central, departmental and local school level; and (vi) promoting community participation in the context of the autonomy policy. These goals are to be supplemented through a continuous dialogue on the overall status of education and through support to the MECD in the preparation of medium- and long-term strategies.

## II. PROJECT DESCRIPTION

### A. Objective

- 2.1 The objective of the project is to establish a solid basis for reforming the secondary education system in Nicaragua, as part of a policy to promote quality and equity in education. In pursuit of this objective the project will finance: (i) preparation of a national education plan; (ii) a process of dialogue and design that will lay the basis for reforming the structure and curriculum of secondary education; (iii) alternative applications of educational technologies; (iv) a pilot program for pre-school education, intended to raise the level of preparation of children entering the first grade of primary school and to distribute teaching materials to existing pre-school centers; and (v) an incentive program to stimulate educational demand and supply through the *Fondo Social Suplementario* (FSS, the Supplementary Social Fund).
- 2.2 The project is conceived as a first phase in the reform process. The proposed activities and pilot programs are intended to lay the basis for larger-scale investments in the future in support of the Nicaraguan government's educational initiatives. The project team expects to submit the second phase of the program to the Bank's Board of Directors during the year 2000 (NI-0110 for US\$25 million in the pipeline).

### B. Project components

1. Component 1. Designing the secondary education reform (IDB financing, US\$1.1 million)
- 2.3 This component includes the following activities: (i) preparation of the long-term National Education Plan; (ii) compiling and/or producing informational input to government decisions on secondary education reform; (iii) training for secondary school management and teaching staff; (iv) strengthening the information system of the MECD and the decentralized institutions; (v) curricular updating; (vi) communication strategy: promoting dialogue with interested sectors of the public on secondary education reform, and a broad communication campaign through the media.
- a. Preparing the national education plan (US\$56,000)
- 2.4 Preparation of the plan will be in the hands of a national team and will be carried out by means of a participatory process that will involve representatives of government and of civil society. The strategic plan will embrace all areas of education, including the technical and university levels. The plan is conceived as a practical and flexible instrument that will set realistic goals and verifiable indicators in accordance with a timetable and a

financing plan. In addition to technical and logistic support, the project will finance a communication program for publicizing the plan nationwide. The communication program will pay for creation and dissemination of short announcements via radio, television and the press, the printing of pamphlets and posters, the holding of workshops and seminars with focus groups. At the end of the program, an external consultant will be hired to assess the impact of the communication strategy by means of surveys and audience analysis. The process of preparing the plan has already commenced and is expected to continue for approximately four months after the loan becomes eligible for disbursements.

b. Preparing the reform: compiling and producing information  
(US\$585,000)

- 2.5 The project will finance the hiring of international and national consultants to compile and/or produce information as necessary for designing the secondary education reform. These studies will include: (i) an assessment and projection of demand in terms of enrollment and infrastructure; <sup>3/</sup> (ii) a study of the social demands on the education system; (iii) an analysis of the administrative, budgeting and teaching management systems of the MECD and the schools themselves; (iv) identifying needs for better articulation within the education system, and between that system and the labor market; (v) analysis of the present studies program and any needed changes; (vi) preparation of the secondary education reform proposal. To avoid unnecessary duplication, the analyses and studies previously carried out by the MECD and other bodies relating to these issues will be systematically reviewed. The Project Coordination Unit (PCU) will prepare the respective terms of reference for the further studies that are identified as necessary.
- 2.6 Preliminary reports and the results of the studies and activities to be conducted as part of preparatory work on the reform will be presented and discussed with representatives of social and economic sectors in the country to seek their commitment and support for the reform. An advisory committee will be established to consider educational policies, made up of high-level representatives from the various sectors of civil society. This process will culminate in a proposal for the reform of the secondary education sector.

c. Activities parallel to preparation of the reform (US\$294,000)

- 2.7 As part of the process of preparing the reform, project will support:
- (i) **Training for principals, departmental and municipal technical staff, and teachers who are now working in**

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<sup>3/</sup> The diagnosis and projection of demand for teachers will be financed by the European Union/ASEN Project.

autonomous secondary institutions but who have had no formal preparation for the positions they occupy. Training for principals (approximately 100) will be provided by means of three seminars of two days each, which will be conducted by technical personnel of the MECD and will cover such issues as financial administration, leadership and teacher supervision. Training for technical directors of departmental and municipal education offices (approximately 400) will also be conducted by means of three two-day seminars covering topics relating to technical, teaching and administrative supervision and the assessment of teacher performance. Training for currently uncertified teachers (approximately 500) will be provided in Saturday sessions over a period of some 40 weeks, in the areas of mathematics, Spanish and natural sciences. These training activities will be carried out on the premises of the normal schools at Chinandega, Esteli, Matagalpa and Chontales, and teachers from autonomous institutes within a radius of at most 30 kilometers will be invited to participate. In the first year of the project, the contents of the training modules will be worked out. These three areas of training will be focused on the same departments and will form part of a package of activities aimed at strengthening school autonomy. Under component 4 incentives for autonomy and teacher training will be proposed.

- (ii) **Improving the MECD information system.** A management information system will be established to provide ready access to statistical data and ensure swift communication between the central and local levels. The information system for secondary education will be based on the Ed Assist system that was developed for the primary education subsector as part of the BASE/USAID project. A survey will be conducted of equipment needs in the departmental and municipal education offices, in light of their new technical and administrative supervisory functions. As well, there will be a program of information, coordination and training activities targeted at personnel of the departmental and municipal offices to assist them in organizing themselves to carry out the secondary education renewal program, and to familiarize them with the basic concepts underlying that program and other key activities of the MECD.
- (iii) **Curricular changes.** On the basis of the proposals and analyses conducted by the MECD as part of the National Education Plan, new plans, programs and performance indicators for secondary education will be designed. The output will be validated through consultations with teachers at the secondary and primary levels. Special attention will be paid to the curricular aspects of education in civics. In addition, the curriculum will place greater stress on

gender equity so as to promote equality in schooling for males and females. The revised curriculum will also contain subject matter and methodologies to raise student awareness about the importance of conservation and improving the environment as means to a more satisfying human life. Consultants will be hired to build these new concepts of gender and environment into the curriculum. The curricular reform plan will cover all five years of secondary schooling. The result of this activity will be a staff complement capable of implementing the reform program (second phase of the project).

d. Communication strategy (US\$241,000)

- 2.8 A communication strategy will be established with the following goals in mind: (i) to foster a supportive public opinion and understanding of the objectives and activities of the project as a whole and its different components, so as to enlist the support of all stakeholders in the education reform process; (ii) to change perceptions and attitudes among teachers and administrators so that they will adapt their practices to the new education model; and (iii) to mobilize communities and the public in general to participate in the reform process. The project will help the MECD to strengthen its Department of Public Relations, which will be primarily responsible for implementing the communication strategy. This unit will convene a press conference at least once a month, to keep the country informed of progress with the reform. In addition, it will produce printed materials for dissemination via the mass media of radio, television and newspapers. The unit will also analyze and respond to feedback information from the media as it relates directly to the education reform. As well, the project will provide short training sessions for departmental and municipal officials to help them carry out a lobbying strategy aimed at influencing decision-makers.
- 2.9 As part of these communication activities, the project will finance: (i) an analysis of target groups with an interest in secondary education reform, and an opinion survey; (ii) creating a public image and context in favor of reform by designing logos and key messages; (iii) producing and disseminating information by television, radio and the press; (iv) preparing publicity and communication materials; (v) organizing meetings and seminars with journalists; (vi) hosting a year-long series of 12 monthly forums over the television channels; (vii) holding training workshops on the communication strategy for departmental officials; and (viii) monitoring and evaluating the communication program.
- 2.10 **Evaluation.** At the outset of the project an audience analysis and survey will be conducted to establish a base line for comparison. At the end of the third year, the audience analysis and surveys will be repeated to compare results with respect to: (i) the level of receptivity to the messages and programs; (ii) the level of knowledge

and awareness among the public and principal stakeholders with respect to activities and concepts of the national plan and the education reform process; and (iii) changes in teaching practices and in the level of community participation. A consulting firm will be hired to perform this evaluation.

2. Component 2. Use of educational technologies in alternative instruction modes (US\$5.3 million)

2.11 The objectives of this component are: (i) to improve the coverage of secondary education in rural areas; (ii) to improve the quality of evening and Saturday classes in secondary education; (iii) to improve the academic performance of students in grades 5 and 6 of primary school.

2.12 This component will be executed in a series of pilot experiments, making use of educational activities that have been demonstrated to be successful and cost-effective in other countries of the region. The pilot activities will consist of: (i) design, execution and evaluation of a pilot project for distance learning, aimed at expanding the coverage of secondary education in rural areas; (ii) design, execution and evaluation of self-teaching modules that can be used to increase the quality, relevance and flexibility of evening and Saturday classes in secondary education; (iii) design, execution and evaluation of a pilot experiment with interactive radio for giving students in primary grades 5 and 6 a better academic preparation for the secondary level.

a. Distance learning at the secondary level ["Telesecundaria"] (US\$3.3 million)

2.13 This pilot project will consist of creating 30 distance learning schools (years 1 to 3 of the secondary level) to serve students who today have no access to this level of schooling in the locality where they reside. Students will meet Monday to Friday, five hours a day. Classes will be based on the use of videos and appropriate written support materials. The approach will have a number of novel features designed to meet the needs of education in Nicaragua: it will employ an accelerated curriculum that will include classes in vocational training and preparation for the workplace. The curriculum will be based on mastering the basic course contents as set out in MECD guidelines. It is planned to extend the school year by taking advantage of Saturdays and holidays.

2.14 The criteria for selecting municipalities to participate in the pilot project are as follows: (i) they must have a minimum average of 30 graduates a year from grade 6 of primary school, and a waiting list of 20 students who have no ready access to secondary schools at present; (ii) primary school graduates must have safe access by all-weather road to the site where the distance facility is to be installed; and (iii) the community must be fully committed and interested in establishing local secondary education, and must be



ready to support the goals of autonomy and decentralization by forming a legally constituted parents' council. Finally, the MECD will need to hire certified teachers or instructors, with priority given to secondary or primary teachers who have experience in teaching grades 5 and 6 and who are specialized in one of the basic course areas.

- 2.15 **Construction of classrooms.** Classrooms will be built only on lands belonging to the MECD or on sites that: (i) have clear property title and (ii) are the subject of a contract between the duly incorporated parents' association and the landowner, allowing the land to be used for purposes of the project. This contract must be based on a donation to the parents' association or on a lease or promise of sale, or some other legal device that will guarantee the availability of the land for at least 15 years. The FISE mechanism will be used for building classrooms since, given the latter's experience, this is the most cost-effective option. An agreement will be signed between the MECD, as project executing agency, and the FISE. This agreement will establish: (i) the obligation of the MECD to provide the FISE with the resources necessary to construct the classrooms in accordance with an agreed work plan; and (ii) the obligation of the FISE to use all funds transferred by the MECD for works contracting, which is to take place in accordance with Bank procedures, and to deliver them according to the schedule and technical specifications set by the MECD and at the sites determined by the MECD in accordance with the agreed selection criteria contained in the project operating regulations. The FISE administers a maintenance fund that operates through the Parents' Association. The Association's commitment to maintain classrooms built will be stipulated in the certificate of delivery of works issued by the FISE to the association concerned.
- 2.16 At least one classroom will be built for each grade at each of the 30 distance schools. A second classroom will be added where there is a pre-enrollment list of 30 students or more. The project will cover: (i) construction or upgrading of classrooms with upgraded security standards; (ii) furnishings and audiovisual equipment (giant screen TV, VHS, reproduction equipment and materials, video cassettes and furniture); (iii) solar power units where there is no electricity supply; (iv) audiovisual and printed teaching materials; (v) teacher training; (vi) technical assistance for revising and adapting programs; and (vii) the cost of purchasing programs, audiovisual materials, teachers' and students' handbooks, and program monitoring and evaluation. Although the budget includes an item to buy programs already developed in Mexico and El Salvador, the governments of those countries have already indicated that the programs might be provided as a donation. To the extent that programs from other countries are used, they will be adapted to educational conditions and needs in Nicaragua.

2.17 **Evaluation.** The pilot project will be evaluated according to cost effectiveness criteria, taking into account the objectives of coverage and quality. The evaluation will be geared to measuring demand satisfaction and the internal efficiency of the project by comparing initial and final enrollment for each course and by examining rates of promotion, repetition and dropouts. In terms of quality, academic assessments will be based on mastering the basic contents of each of the subject matters, comparing the performance of students in the distance schools with those in regular classroom instruction. Recurrent costs and amortized capital outlays will be compiled and analyzed to establish the total cost for each student promoted or graduated.

b. Improving the quality of alternative instruction modes in secondary education: self-teaching modules (US\$1 million)

2.18 The object of this program is to improve the quality and relevance of evening and Saturday instruction in 20 secondary schools, through the use of self-teaching modules in mathematics, Spanish and science. These modules will be based on the basic course content prepared by the MECD and will use innovative teaching techniques adapted to the age group (post-adolescents and adults) of the students enrolled in the courses.

2.19 Modules will be divided into self-contained learning units with their own evaluation elements, based on an innovative curriculum. Innovation will take the form of using non-traditional teaching techniques that make intensive use of bibliographic supports, self-study guides and technologies such as audio cassettes, video cassettes and computers for accessing the Internet.

2.20 The objectives and characteristics of these modules are such that training for teachers and teaching assistants will be key to the success of the pilot project. The project will attempt to replace the standard knowledge-transfer relationship between teachers and students with techniques where the teacher becomes more of a guide or facilitator in the learning process. The modules are in fact based on the premise that a student will advance as fast as he can learn, and that there must be flexibility with respect to the time that this demands. This means that some students may be able to complete their studies in much less time than is foreseen in the formal school calendar.

2.21 The use of modules and new instructional approaches will require new tools for teaching and learning. The project will finance preparation and printing of self-teaching guides and the introduction of a set of technological support media directly related with the modules. These technological media will include audio and video cassettes, TVs and computers with Internet access. They will be centrally located in the school in such a way that they can be properly protected while being accessible to students.

- 2.22 The pilot project will include 20 schools, which will be selected according to the following criteria: (i) the school must offer evening or Saturday classes at the secondary level; (ii) the school must have suitable facilities for housing the support materials, and (iii) the school must be located in one of the departmental capitals of the Central and Pacific region. This last criterion will make it easier to supervise the pilot project, something that would be very difficult, at least at this stage, in the departments along the Atlantic coast for example.
- 2.23 **Evaluation.** Evaluation will include the following activities: (i) 20 control groups of day and evening students will be selected with similar socio-demographic characteristics to those of the pilot school groups; (ii) base lines will be established reflecting the initial class size and the characteristics of the teachers in each of these groups. As well, the students will be subjected to academic performance tests to measure their mastery of the course content from their previous year's studies; (iii) in addition to measuring the final class size and the percentage of students promoted, the evaluation at the end of the school year will consider the results of academic performance tests based on the basic course content for the year; (iv) finally, focus groups will be used to test perceptions, opinions and suggestions by teachers, principals and students about the impact of the project.
- 2.24 This pilot program will be coordinated by a specially selected team that will be actively engaged in all of its phases. The team will take part in defining the modules, training the teachers and principals, implementing the pilot project and evaluating its results.

c. Interactive radio (US\$1 million)

- 2.25 The objective of this pilot project is to improve the academic preparation for secondary school of students in grades 5 and 6 at 45 primary schools. Academic preparation will be improved by using interactive radio in the teaching of mathematics and Spanish. Interactive radio is different from other forms of distance education, in the sense that its principal goal is to improve the quality of education itself, rather than simply making it more accessible. The pilot project is therefore designed to improve the quality of teaching and thus to reduce failure and dropout rates among students entering secondary school.
- 2.26 The project will involve pilot experiments in 45 schools in rural and low-income urban districts. The school selection criteria will be as follows: (i) they must be comprehensive primary schools (multi-grade schools are excluded); (ii) they must be located in areas that have access to the first cycle of secondary education.

- 2.27 The project will finance: (i) furnishings and equipment for audiovisual productions. The MECED will provide the premises for producing and recording the programs, with equipment to be financed by the project; (ii) tape recorders and cassettes for the schools, instruction guides for teachers and study materials for students in mathematics and Spanish; (iii) national and international consultants for designing and producing scripts, radio programming, evaluation of the program and promotional aids (including a script writer, an announcer and a producer); (iv) training for the teachers and technical staff involved. The program will be conducted with audio cassettes, which means that each school will need to be supplied with recording equipment. It is expected that the pilot program will reach a total of 7,875 students over a three-year period: 1,575 grade 5 pupils in the first year, and 3,150 students in grades 5 and 6 in each of the following years.
- 2.28 **Evaluation.** The interactive radio program will be evaluated in terms of the process itself and the results, measured by the degree of learning and preparation for secondary school. The process evaluation will involve a continuous assessment of programs to measure the relevance of the elements, personalities and contents of each block of programs. One program out of every 10 will be evaluated in this way. Evaluating the process itself is essential because this will not only serve to monitor and reinforce implementation of the method but will also provide feedback for possible adjustments to the new block of programs that will then be in production.
- 2.29 The interactive radio project will also be evaluated for the quality of its output, i.e. the academic level of those leaving primary school. This evaluation will be performed by testing performance in mathematics and Spanish against that of a control group. If interactive radio is found to be an efficient means of raising the quality of primary education, it should also be able to help reduce failure and dropout rates in the fifth and sixth grades. Consequently, the evaluation will need to analyze changes in repetition, dropout and graduation rates against those for the control group.

### 3. Component 3. Preschool education (US\$788,000)

- 2.30 **Pilot experiment** (US\$215,000). The project will introduce, on a pilot basis, a non-conventional mode of preschool education. This mode will be conducted during roughly 2 1/2 months of vacation period, immediately prior to the beginning of the school year, and will be aimed at preparing boys and girls aged 6 and 7 for the first year of primary education. It is hoped thereby to achieve better performance in the first grade of primary school and to reduce failure and repetition rates in the first two grades. Once it has been evaluated, this model could be replicated at low cost in urban and rural areas.

- 2.31 The program will: (i) establish 10 pilot programs (with 25 students per program) using this alternative mode, in five rural schools and five schools in low-income urban neighborhoods; (ii) benefit 125 children from rural areas and 125 children from low-income urban areas annually; and (iii) identify control groups from among the existing preschool programs in the country, so as to allow for comparative evaluation in terms of impact and cost effectiveness.
- 2.32 Schools will be selected for the vacation-time pilot program using the following criteria: (i) schools located in low-income areas as defined using UNICEF and FISE criteria; (ii) rural and urban low-income schools in areas where no preschool education is offered or in those where there is steady but unmet demand that would justify increasing the supply of preschool education; (iii) the availability of a qualified teacher; (iv) existence of a school lunch program (*PIN Escolar*). In the 10 pilot schools selected, the MECD will extend the lunch program to cover the period of the pilot project.
- 2.33 The program will be run by teachers, preferably first grade primary teachers, who volunteer for the task. Teachers will be paid an incentive equal to their regular monthly salary for each month worked under the pilot program. Teachers offering themselves as candidates will be selected on the basis of their experience, performance and ease of access to the school. A detailed list of the selection criteria is found in the technical annexes to the project and will be part of the operating manual. Children will attend school from Monday to Friday, for five hours a day. The project will finance: (i) the equipment, furnishings and materials needed for establishing the pilot programs; (ii) technical assistance for setting up the pilot program and for training the personnel who are to run it; (iii) operating manuals for the program, for training teachers and for preparing students; (iv) technical services for designing ad hoc instruments to evaluate the component; (v) analytical studies on the target population (children) and on preschool education at the outset of the project, and an evaluation study to compare the pilot program on a cost-benefit basis with existing preschool programs, over the medium and longer term.
- 2.34 **Evaluation.** Evaluation of the pilot program will be conducted at four points: before the preparation period begins, at the end of the preparation period, at the end of the first grade, and at the end of the second grade. The evaluation instruments will consist of tests given to children from the pilot program and from the control groups, and an analysis of failure, dropout and promotion rates. There will be three control groups, made up of children in formal preschool programs, community-run preschool programs, and children who have never attended any preschool program. The success of the program will be measured in terms of its cost-effectiveness in comparison with other modes of delivering preschool education now in use in the country. The impact of these various modes will be measured in terms of the psycho-motor development and school performance of

participating children as they move through the first grades of primary school. This component will run for approximately 36 months, which will provide enough time to monitor two cohorts of pilot participants and control groups. If the results of this new mode are found to be positive, consideration will be given to applying it more widely through a new investment program.

- 2.35 **Distribution of teaching materials** (US\$655,000). During the first three years, the project will finance the upgrading of teaching materials for the 1,246 existing public preschool education programs and for the 145 centers funded by the MECD. A total of 1,629 teaching kits will be distributed each year. These materials will be supplementary to what is already available in the country. The project will finance short training courses for teachers in the effective use of these teaching materials. This activity will result in a higher quality of education at this level in the country's various municipalities.

4. Component 4. Contributions to the Supplementary Social Fund (FSS). Estimated cost: US\$1.2 million

- 2.36 The government of Nicaragua has requested donor agencies to provide transitional funding to cover basic operating expenses of the Ministries of Education and Health through the channel of a Supplementary Social Fund (FSS). This fund is a temporary, rapid disbursement mechanism, financed with both external and internal resources. The fund was established in June 1998 by presidential decree No. 46-98, and is intended to raise regular per capita spending on health and education to levels above those agreed by the government and the IMF under the Enhanced Structural Adjustment Facility (ESAF). The FSS operates through a special account in the name of the *Tesorería General de la República* (National Treasury) of the Ministry of Finance, administered by a coordinating council comprised of representatives of the President's Technical Secretariat and the ministers of finance, education and health, and a donors' representative. The coordinating council approves the annual work plans submitted by the ministries of education and health. Execution of the approved programs is the responsibility of those ministries or "executing agencies", on the basis of quarterly disbursement plans approved by the responsible ministry. The finance ministry makes disbursements by check, payable directly to each beneficiary (individual or association) or as an advance to the ministry in question, which will in turn make the appropriate payments. The coordinating council performs a quarterly ex-post evaluation of use of these funds and advances for execution of the programs. The FSS is subject to the *Contraloría de la República* (National Comptroller General) and to annual external audits. This component is intended to stabilize funding for the incentive mechanisms, and the contribution to the FSS is expected to serve as a catalyst for attracting additional funds from other donors.

- 2.37 The FSS component calls for establishment of three types of incentives: (i) an incentive program for strengthening school autonomy; (ii) an incentive program to encourage uncertified teachers to undertake further training; and (iii) an incentive program to encourage students to remain in secondary school.

a. Incentive for strengthening school autonomy (US\$900,000)

- 2.38 The objective of this subsidy is to strengthen autonomous schools located in rural or low-income urban areas that meet at least two of the following three basic characteristics: (i) a student body smaller than the critical mass that would be required if parents' contributions were to be sufficient for the development of an autonomous school (i.e. fewer than 800 students for school); (ii) a location in low-income areas where parents cannot afford contributions on the scale required for autonomy; (iii) distance education secondary schools (*telesecundarias*). The Government of Nicaragua currently pays a compensatory subsidy to autonomous schools based on needs as determined by a poverty index. Accordingly, the incentive to strengthen school autonomy will be paid during project execution only.
- 2.39 A student in an autonomous secondary school will typically pay an annual fee of about US\$12. <sup>4/</sup> There are estimated to be at present about 52 public rural institutions and 100 low-income urban ones that fulfil the characteristics described above. These schools serve a total student body of 47,000. The incentive will consist in providing the school with a grant equal to 50% of its student fee base. While the national percentage of extremely poor students is 19.4%, it was considered in this case that a ratio of 50% was appropriate in light of the number of poor students in rural and low-income urban areas. At least 50% of the beneficiaries of this grant will be females. Because the distance education centers are small and located in poorer regions, they will also be eligible for the autonomy incentive. All distance centers will receive the same amount per student as that given to the low-income autonomous schools, but because of their reduced enrollment (no more than 20 students per class) the subsidy for distance schools will be raised to 70% of the fee base.
- 2.40 **Evaluation.** The autonomy incentive program will be evaluated according to three criteria: (i) availability of educational materials: the Evaluation Division will prepare a special questionnaire, to be applied by the distance education coordinator and evaluation staff; (ii) teacher attendance and community participation: these records will be kept by the school's governing

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<sup>4/</sup> This is divided as follows: C\$20 registration fee, C\$10 per month for ten months, C\$5 for school maintenance and repairs, C\$0.5 per worksheet, 8 per year, and C\$2 per report card.

council; (iii) student academic performance: tests will be given during the project to students in the third year of secondary school.

b. Training incentives for uncertified teachers (US\$100,000)

- 2.41 The purpose of this activity is to enhance quality, efficiency and user satisfaction with respect to MECD services, by providing further training for its teachers. The FSS will provide a modest incentive for secondary school teachers who have no certificate to seek further training. It is expected that 40% of secondary teachers fall within this category. The incentive will be provided during this stage on an experimental basis to 20% of uncertified teachers. The cost of the subsidy is US\$67 per teacher per year. About 500 teachers will benefit from this incentive each year. Teachers eligible to receive this incentive will be those who participate in the training modules established in component one of the project (Para. 2.7(i)). This is an experimental incentive and will be paid during project execution only.
- 2.42 **Evaluation.** The teacher training incentive will be evaluated indirectly. There are no academic performance tests that can be applied across all levels of secondary schooling, and so the evaluation will be done by measuring internal efficiency and the number of teachers trained each year.

c. Secondary education demand incentive (US\$230,000)

- 2.43 In many rural areas of Nicaragua there is no education available past the primary grades. This subcomponent is intended to test whether, with the advent of distance education methods, a modest demand subsidy (below the opportunity cost to the student) would provide sufficient incentive to attract new students at the intermediate level. The demand subsidy for secondary education would cover the direct costs of schooling, and some of the indirect costs, to a total of US\$120 per student per year. Direct costs are estimated at US\$34 per student per year. To these must be added indirect costs: the incentives would cover only those relating to the minimum food consumption necessary for the student to maintain an active life. In the absence of better information about the cost of a given caloric intake, the cost of this amount of food was estimated at 25% of the value of the basic family basket, or C\$5 per day. The incentive would be offered only during the 190 actual school days of the year, on the assumption that the student will provide for himself the rest of the time by doing odd jobs. This last subsidy represents US\$86 per student per year. The target population group will be students in distance education at the secondary level (900, 1,800 and 2,700 during the three years of the project) but it will be given to only 50% of the group, since it will be focused on extremely poor people living in rural areas. Only 70% of distance learning centers will be eligible for the demand incentive, since it will be necessary to keep some schools as a control group for evaluating the impact of



the program. Students who are in regular attendance at a distance learning center will be eligible for the incentive. They will have to attend the school on a regular, full-time basis. Beneficiaries may not have incurred more than one disciplinary sanction. Teachers will keep attendance records, under the supervision of the center's governing council. This is an experimental incentive and will be paid during project execution only.

- 2.44 **Evaluation.** The *telesecundaria* education demand incentive will be evaluated according to two criteria: (i) comparing the size of enrollment per course at the *telesecundaria* centers offering this incentive with those that do not. The enrollment list will be kept by the course coordinator and will be provided to the PCU via the *telesecundaria* coordinator; (ii) the second measure will be the existence of the school. Lists for each center will be provided to the PCU via the *telesecundaria* coordinator.

C. Project administration

- 2.45 A Steering Committee and a Project Coordination Unit (PCU) will be established to coordinate and administer the project. The Steering Committee will report to the Minister or the Vice Minister. The PCU will also be located within the MECD and its coordinator will report directly to the Minister of Education. The PCU will consist of a coordinator, four technical advisers responsible for each of the components, one person responsible for financial aspects, and another responsible for bidding and procurement. There will also be a small support staff (secretary, driver). The Bank will pay for the coordinator and the technical advisers, as well as the equipment and furnishings required. Support staff for the PCU and personnel of the Steering Committee will be paid for from national counterpart funds. The responsibilities of the Steering Committee and the PCU are described in chapter III of this report. The tasks involved in executing the project will be treated as part of the regular workload of the relevant offices, and 20% of their time will be counted as local counterpart support. It is hoped that this recognition of work time and responsibilities pertaining to these tasks will lead the MECD to feel a sense of ownership and develop a permanent technical capacity.

D. Costs and financing plan

- 2.46 In accordance with the program as described in this chapter, the loan will finance the costs shown in detail in the financing matrix (Table 2.1). The estimated cost of the four components includes an item of 10% for contingencies. Counterpart funding from the government represents 10% of project costs. This will be used primarily to cover recurrent expenditures and operating and maintenance costs. It must be recalled that a high percentage of recurrent costs will be covered by the FSS, as will the agreed costs of the PCU. The government will also pay the credit fee.

2.47 The terms and conditions of the financing are as follows:

Amount:	US\$9.4 million
Source:	Fund for Special Operations (FSO)
Amortization period:	40 years
Grace period:	10 years
Disbursement period:	4 years
Interest rate:	1% during the grace period and 2% thereafter
Credit fee:	0.5% of the undisbursed balance
Inspection and supervision:	1% of the amount of the loan

Table 2.1 COST TABLE (in US\$000)

Category	IDB	Government	TOTAL
<b>Component 1. Design of the secondary education reform</b>			
1.1 National Education Plan	56	5	61
1.2 Consultants and technical services	890	30	920
1.3 Teaching materials	35	10	45
1.4 Technical meetings and training	120	35	155
<b>Subtotal</b>	<b>1,101</b>	<b>80</b>	<b>1,181</b>
<b>Component 2. Use of education technologies in alternative education modes</b>			
2.1 Infrastructure	1,800		1,800
2.2 Furnishings and equipment	1,150		1,150
2.3 Consultants and technical services	1,000		1,000
2.4 Teaching materials and purchase of programs	500	100	600
2.5 Training	587		587
2.6 Recurrent costs	303	560	863
<b>Subtotal</b>	<b>5,340</b>	<b>660</b>	<b>6,000</b>
<b>Component 3. Preschool education</b>			
3.1 Equipment and furnishings	8		8
3.2 Consultants and technical services	180		180
3.3 Teaching materials	600	60	660
3.4 Recurrent costs		26	26
<b>Subtotal</b>	<b>788</b>	<b>86</b>	<b>874</b>
<b>Component 4. Supplementary Social Fund</b>			
4.1 School autonomy incentive	900		900
4.2 Teacher certification incentive	100		100
4.3 <i>Telesecundaria</i> demand incentive	230		230
4.4 Evaluation	10		10
<b>Subtotal</b>	<b>1,240</b>	<b>0</b>	<b>1,240</b>
<b>5. Project Coordination Unit</b>			
5.1 Equipment and furnishings	51		51
5.2 Personnel and technical services	555	92	647
5.3 Recurrent costs			38
5.4 Materials, supplies		18	
5.5 Per diems and travel		20	
<b>Subtotal</b>	<b>606</b>	<b>130</b>	<b>736</b>
<b>TOTAL BEFORE FINANCING COSTS</b>	<b>9,075</b>	<b>976</b>	<b>10,051</b>
<b>6. Financing costs</b>			
6.1 Interest	251		251
6.2 Credit fee		30	30
6.3 Inspection and supervision	94		94
<b>Subtotal</b>			
<b>TOTAL</b>	<b>9,400</b>	<b>1,000</b>	<b>10,400</b>
Percentage distribution (%)	90%	10%	100%

### III. INSTITUTIONAL FRAMEWORK AND PROJECT EXECUTION

#### A. General executing structure

- 3.1 The borrower under this transaction will be the Republic of Nicaragua and its executing agency will be the Ministry of Education, Culture and Sports (MECD). To ensure that the project proceeds smoothly as an integral part of MECD policies and activities, the Minister will be assisted by a Steering Committee [*Consejo Directivo*], which will act as the technical counterpart for the project. Project coordination will be the responsibility of the Project Coordination Unit (PCU) described in the previous chapter (para. 2.45). The central units (divisions, departments and offices), the departmental and municipal offices, and the schools themselves will be directly responsible for executing project activities, and they will be assisted in this regard by consultants and occasional advisers and by the PCU.
- 3.2 The Steering Committee will be composed of the official responsible for the units executing the project activities, in particular: (i) the General Directorate of Education, the (ii) Directorate of Preschool Education, (iii) the Directorate of Secondary Education, (iv) the Department of Curriculum, (v) the Directorate of Training, (vi) the Directorate of Research, Planning, Evaluation and Statistics (DIPEE); (vii) the Directorate of Decentralization; (viii) the General Coordination and Supervision Division; and (ix) the National Project Coordination Office.
- 3.3 The functions of the Steering Committee will be: (i) to provide policy guidance to the PCU as the project progresses; (ii) to participate in reviewing the work plans submitted to it by the PCU and the terms of reference for contracts as required; (iii) to monitor progress under the project and participate in its evaluation; and (iv) to present recommendations to the Minister/Vice Minister for approval, where policy aspects are involved in project execution. It should be noted that the recommendations of the Steering Committee will be subject to the terms and conditions of the loan contract and the overall operating regulations for the project. At the same time, the Steering Committee will enjoy the technical and operational support of the PCU and other project consultants.
- 3.4 Activities of the Steering Committee will be governed by the operating regulations of the project, prepared in accordance with the preliminary outline found in the technical annexes to the project, which stipulate that: (i) the coordinator of the PCU is the executive secretary of the Steering Committee; (ii) the coordinator will convene meetings of the Steering Committee and the PCU at least once a week; (iii) these meetings will be intended primarily to finalize and approve working plans and the terms of reference for any necessary contracts, and to monitor and evaluate

the progress of the project (para. 3.37). These meetings will be attended by officials and consultants directly related to items on the agenda. Preparation of the project's operating regulations and final adoption of those regulations, with the consent of the Bank, is a condition prior to the first disbursement under the project.

- 3.5 The PCU will report to the minister. To the extent that execution responsibilities fall to units of the ministry, the PCU's work will relate primarily to facilitation, coordination and technical and operating support for those units, both at the central level and in the departments and municipalities and the autonomous schools. The PCU will consult the Steering Committee on all questions involving education policy, and it will participate in preparing and approving negotiated versions of the work plans and terms of reference.
- 3.6 The PCU will be responsible for:
- (i) Providing technical and operational support, facilitating and coordinating activities at all levels of the ministry;
  - (ii) Ensuring internal coherence and progress with project execution;
  - (iii) Satisfying the Bank as to compliance with the objectives of the loan agreement, and monitoring the substantive as well as the financial status of the project;
  - (iv) Facilitating coordination of project activities with the MECD authorities, with the Bank, and with other entities in the education sector.
- 3.7 To meet these responsibilities, the PCU will:
- (i) prepare work plans and terms of reference for project activities and participate in joint working sessions with the Steering Committee;
  - (ii) facilitate feedback on progress under the project to MECD line divisions, and encourage their support and approval of that progress;
  - (iii) prepare progress reports for approval by the minister and transmission to the Bank;
  - (iv) negotiate contracts and conduct bidding as required;
  - (v) prepare and process disbursement requests and submit accounting and financial reports on project execution to the Bank.
- 3.8 Establishment of the PCU and hiring of the coordinator will be conditions prior to the first disbursement of financing.

B. Execution strategy

- 3.9 **MECD ownership of the project.** Direct responsibility for executing activities under the project will fall to the central directorates, the departmental and municipal offices, and the autonomous schools. Thus, these responsibilities will be counted as part of the regular work of officials in the various offices. It is hoped that this recognition of the responsibilities and time involved in these tasks will encourage the MECD to feel a sense of ownership in the project and establish a permanent capacity for such activities. Nonetheless, in order to ensure that MECD units are in a position to carry out their execution responsibilities, the project will pay for occasional consultants and technical advisers, as required, who will work directly with the MECD units.
- 3.10 **Sustainability.** To ensure that the project does not lead to distortions in the education sector and that, by the end of the financing period the MECD is in a position to take over the responsibilities arising from the project, the costs incurred for the PCU and the project activities are to correspond as closely as possible to the costs of the various MECD offices that have similar responsibilities, provided this does not affect project quality.
- 3.11 **Coordination.** Project activities will be coordinated with those of other external cooperation projects within the MECD by having the National Project Coordination Office participate fully in the Steering Committee. The PCU coordinator will be responsible for overseeing this cooperation and ensuring that work plans, operating plans, consulting reports and evaluations are shared on a timely basis with the National Project Coordination Office, with particular reference to the BASE/USAID, APRENDE/World Bank and ASEN/European Union projects. Moreover, this mechanism for sharing information will ensure that the achievements and the lessons learned in other MECD projects and programs can be put to use in the current project.
- 3.12 The project will be conducted in the context of the country's decentralization policy. Thus, the departmental and municipal offices and the autonomous schools will participate systematically in executing the activities pertaining to them.

C. Execution mechanisms

- 3.13 Each component will be coordinated by the technical adviser assigned to it, in conjunction with the PCU coordinator. Project execution will be carried out through the central units, the departmental and municipal bodies of the MECD, and the schools themselves. The following table details the central units in terms of the various activities under each component.

**Table 3.1**  
**RESPONSIBLE UNITS AT THE CENTRAL LEVEL**

Subcomponent	Activity	Unit
<b>Component 1: Design of the secondary education reform</b>		
Preparation of the National Plan	Dissemination	Minister/Vice Minister Public Relations
Design of the secondary school reform (compiling and producing relevant information, studies)	General coordination	General Directorate of Education  Directorate of Research, Planning Evaluation and Statistics (DIPEE) Department of Curriculum General Division of Coordination and Supervision for Local Offices
Activities parallel to preparation of the secondary school reform	Curricular change  Improving the information system Training of principals and teachers Communications subcomponent	Department of Curriculum  Department of Statistics Training Directorate Public Relations
<b>Component 2: Use of educational technologies in alternative education modes</b>		
Three subcomponents	General coordination Use of technologies Preparation and implementation of evaluation testing Training and supervision of teachers in math, Spanish and natural sciences Curriculum adjustments	General Directorate of Education DIPEE DIPEE, Department of Evaluation  Training Directorate  Directorate of Curriculum
<b>Component 3: Preschool education</b>		
All activities	Preparation and implementation of evaluation testing	Directorate of Preschool Education Principals of pilot schools DIPEE, Department of Evaluation
<b>Component 4: Contribution to the Supplementary Social Fund</b>		
Three subcomponents	Evaluation activities	DIPEE
Strengthening autonomy	General coordination and identification of beneficiary schools	Directorate of Decentralization
Telesecundaria demand incentive	General coordination	General Directorate of Education
Training incentive	Selection of beneficiaries	Training Directorate

- 3.14 For component 1 an Advisory Committee will be established to examine the reform process for secondary education and the strategies to be used under the project. It will analyze the studies conducted for component 1 and the proposals flowing from them, and will check them for consistency with the goals and priorities established for the subsector in the National Education Plan. The composition and functions of the committee will be included in the project operating regulations. The technical annexes to the project contain a preliminary list of members of the Advisory Committee.

- 3.15 Execution of the incentives under **component 4** will follow the structure and mechanisms established in the project operating regulations and in the operating regulations for the Supplementary Social Fund, as stipulated in an inter-institutional agreement to be signed by the MECD, the Chairman of the FSS Coordinating Committee, and the Ministry of Finance. This agreement is to specify, at the least: (i) that funds channeled through the FSS are to be managed in accordance with the project operating regulations and the FSS operating regulations; (ii) that in the event of a discrepancy or contradiction between the project operating regulations and those of the FSS, the former are to prevail; (iii) that the FSS Coordinating Committee is to present to the MECD the financial statements and other progress reports that the MECD is to present to the Bank as part of its contractual obligations. This contract is a condition precedent to disbursement of funds for execution of this component.
- 3.16 The current Technical Committee of the MECD for the FSS will be responsible for executing the component with the support of the technical advisor assigned to this component. The MECD Technical Committee will prepare all annual and quarterly plans, initial reports, progress reports and accounting reports and will submit them for the approval of the FSS Coordination Council. The initial report, including the annual plan for the first year, will be required before this component can be added to the FSS portfolio. That initial report will contain (i) a description of the component and its subcomponents, with their objectives, goals, benefits, beneficiaries and estimated costs; (ii) the justification of the project and its priority for the executing agency; (iii) the operating regulations with criteria for targeting and selection of beneficiaries and the system for delivering the incentives; (iv) supervision system; (v) performance indicators. This initial report is a condition precedent to the first disbursement for this component.
- 3.17 **Financial execution.** Project resources earmarked for this component will be deposited to a special account of the Ministry of Finance and Public Credit (MHCP/FSS/BID/EDUCACION). The Technical Committee of the MECD, with the support of the PCU administrator and the technical adviser for the component, will be responsible for: (i) preparing the quarterly disbursement plans and submitting them to the MECD for approval; and (ii) preparing and sending requests to the Bank for constituting and replenishing the fund. As well, the Technical Committee will send the MHCP all requests for disbursements to pay the incentives. According to the FSS operating regulations, funds may be disbursed directly by the MHCP to the beneficiaries, or passed as a block to the line ministry – in this case the MECD – for disbursement. It is proposed here that the MHCP should make these payments directly. Nevertheless, if the payment of incentives should prove to be a burden for the MHCP, consideration will be given to having the funds transferred as a



block to the MECD. Every three months the Technical Committee will report on progress with execution of the component to the FSS Coordinating Council, which will monitor performance indicators for the component. The MECD Technical Committee, with the support of the PCU, will be responsible as well for rendering accounts to the Bank.

- 3.18 The incentive plan for strengthening school autonomy will be administered as follows: (i) at the central level, the PCU will select those schools that are eligible to receive benefits, in accordance with the eligibility criteria provided in Chapter II (para. 2.39); (ii) the PCU will also determine the amounts to be transferred to each autonomous school, based on the number of students deemed to be extremely poor; (iii) it will give instructions to the MHCP to make the transfer; (iv) the PCU will determine training needs for administrative personnel and for parents participating in the Parents' Associations, in terms of budget management, and will advise them on the most appropriate investments.
- 3.19 The training incentive for uncertified teachers at the intermediate level will be awarded to each eligible teacher on the basis of the areas that the MECD deems to be priorities, preferably coinciding with the schools that have received the autonomy strengthening incentive and that are eligible to receive training support under component 1. The PCU will be expected to: (i) decide which schools are to receive the subsidy; (ii) negotiate with the school the number of uncertified teachers to be trained; (iii) instruct the MHCP on the amount to be transferred; and (iv) ensure that these teachers are monitored and given assistance, and that they have the materials they need to apply the new teaching techniques they have learned. The schools will designate the teachers to be trained, in consultation with the PCU.
- 3.20 The demand subsidy for distance secondary education will be given to 70% of the *telesecundaria* centers created under this project. The selection process will be as follows: (i) in accordance with pre-established criteria, the class moderator will propose which members of the class should receive the grant; (ii) this list will be submitted and discussed by the teacher at a session of the schools' Governing Council, which will take the final decision on candidates for the grant; (iii) the list will be submitted to the PCU and subsequently to the FSS, which will send it to the MHCP for payment.

D. Execution procedures

- 3.21 The project will be executed in accordance with the mechanisms stipulated in the project operating regulations, the final text of which must be approved by the Bank as a condition prior to the first disbursement.

1. Annual operating plan

- 3.22 Project execution will be governed by an Annual Operating Plan (AOP) which will be prepared by the PCU in consultation with the Steering Committee, for approval by the Minister/Vice Minister. The AOP will be submitted to the Bank for its concurrence no later than December 15 of each year. During the last quarter of each year, meetings will be held to evaluate the activities carried out, and on the basis of that evaluation the work plan and resources for the coming year will be determined. These results will also be used as the basis for any adjustments that may be required to the project operating mechanisms. Presentation of the AOP for the first year will be a condition prior to the first disbursement.

2. Disbursement mechanisms and revolving fund

- 3.23 All activities will be carried out in conformity with: (i) the general work schedule and the specific activities as agreed in the loan contract, and (ii) the Annual Operating Plans, which will be prepared by the MECD and submitted by the PCU for the Bank's concurrence.
- 3.24 A revolving fund of up to 6% of the amount of the financing will be established. For execution of components 1, 2 and 3, disbursements under the revolving fund will be made directly to the executing agency, up to an amount equivalent to 5% of the financing. For execution of component 4 (Contributions to the Supplementary Social Fund - FSS), an initial disbursement will be made from the revolving fund, in an amount of up to US\$120,000, and deposited into the account to be established by the MHCP for the FSS.
- 3.25 Once the conditions precedent set forth in clauses (a), (b) and (e) of article 4.01 of the General Standards have been met and the borrower has presented evidence that the PCU and the Steering Committee have been established, with the functions, staff, and organization previously agreed upon with the Bank, a disbursement of up to US\$100,000 will be permitted, so that the executing agencies can proceed to hire the coordinator and technical advisers for the PCU. They in turn will be responsible for fulfilling the special prior conditions. Table 3.1 shows projected disbursements under the loan and the local counterpart financing.

3. Procurement of goods and services

- 3.26 The procurement of goods and the construction of physical works will be carried out in accordance with Bank procedures. International competitive bidding will be required for all purchases in excess of US\$250,000 in the case of goods, and US\$1 million in the case of civil works. The FISE will serve as a specialized body for executing infrastructure works, and will follow domestic procurement procedures for works below the value indicated.

- 3.27 The procurement of services (consultants, technical assistance and training) will be done in accordance with Bank procedures, which call for international competitive bidding for amounts greater than US\$200,000. Services for less than US\$50,000 may be contracted directly.

E. Disbursement schedule

- 3.28 Component 1 will run for approximately 18 months. Component 2 will take four years. Components 3 and 4 will extend over a total of three years. The attached logical framework provides details of activities under the project.

Table 3.2  
PROJECTED DISBURSEMENT SCHEDULE FOR THE PROJECT  
(in US\$ millions)

SOURCE	Year 1	Year 2	Year 3	Year 4	TOTAL	%
IDB	3.8	3.3	1.9	.40	9.4	90
Local	.30	.40	.20	.10	1.0	10
TOTAL	4.1	3.7	2.1	.50	10.4	
%	39.4	35.6	20.2	4.8		100

- 3.29 **Component 1.** The principal activities under this component will be carried out during the first year, so that by the time they are completed the MECD and the Bank will have prepared the investment program for implementing the secondary education reforms (phase two of the project).
- 3.30 **Component 2.** At the beginning of program, the necessary working relationships will be established with the communities participating in the program. During the first year, the emphasis will be on reviewing, adapting and preparing programs under the different education alternatives. Distance education classrooms will be constructed in stages. By the middle of the first-year those that are needed for the first grade of the basic cycle will have been built, so that students can use them no later than the start of the second year. Classrooms needed for the self-training modules and the interactive radio programs will be built during the course of the first year; programs will commence as soon as these classrooms are available. While construction work is going on, the required equipment will be purchased and teaching materials will be prepared. From the outset of execution of each module, special attention will be paid to monitoring and evaluating their progress, with the view to obtaining feedback that can be used to improve results in subsequent years.
- 3.31 **Component 3.** Activities relating to the purchase of equipment, teaching materials, teacher training and startup of the pilot program will reach their maximum intensity during the first year.

From the beginning, and during the second and third year, the preschool education programs will be subjected to comparative evaluations and cost-effectiveness analysis.

- 3.32 **Component 4.** During the first year the only incentives to be implemented will be the ones relating to budgetary support for the autonomous schools. The second year will see the addition of the demand incentive for basic secondary education in the distance training mode, and the teacher training incentive.

F. Supervision

- 3.33 The Bank's country office in Nicaragua will be responsible for supervising execution of the project, with technical support from RE2/SO2. The sector specialist in the country office will work closely with the MECD in all phases of execution, and will oversee compliance with the goals and objectives of the operation. In this work, the specialist will be supported by the PCU. The specialist is expected to devote 20 weeks a year to the project.
- 3.34 The PCU will be responsible for submitting semi-annual progress reports. These reports will cover, among other aspects: (i) the general status of the project, including a comparison of execution activities and results against expectations, in light of the logical framework and selected verifiable indicators; (ii) an analysis of any major difficulties encountered; (iii) an evaluation of activities carried out by the various executing bodies under the project; (iv) an analysis of the extent to which the project is contributing to the policy of decentralization and school autonomy; (v) an analysis of the availability of funding for the project within the MECD and the timeliness with which it is delivered; (vi) compliance with any recommendations that may flow from the auditors' reports; and (vii) a comparison of actual vs. planned expenditures.
- 3.35 In addition, the PCU, with the participation of the Steering Committee, will be responsible for submitting an annual report to the Bank for its concurrence. This annual report will contain (i) an evaluation of compliance with the previous AOP, and (ii) presentation of the new AOP, which will include: (a) an execution schedule and required funding; (b) monitoring and control indicators; (c) in the case of civil works, a work schedule and equipment procurement program; (d) as an annex, the draft terms of reference for consulting and technical services.

G. External audit

- 3.36 The MECD will submit financial statements for the project to the Bank each year, audited by a firm of independent auditors acceptable to the Bank.

H. Evaluations and preparation for a second phase

- 3.37 Once the second AOP is completed, an independent mid-term evaluation of the project will be undertaken. This evaluation will include an analysis of achievements and problems identified during project execution, as well as any recommendations for changes or adjustments for the remainder of the execution period. The evaluation will analyze execution mechanisms and methods from their financial, institutional and cost-effectiveness aspects. Those mechanisms and methods that are shown to be most effective, efficient and appropriate will be extended and replicated in the future. The assessment will include a review of key project indicators, annual progress reports and any other reports provided by MECD central levels or the departmental and municipal offices. The results of this evaluation process will be analyzed for preparation of a broader support program for the government, which will constitute the second phase of the project.

#### IV. FEASIBILITY, BENEFITS AND RISKS

##### A. Project feasibility

###### 1. Technical feasibility

- 4.1 From the technical viewpoint, the activities proposed under the education reform preparation component are highly feasible. The country has experience with aspects relating to research, evaluation, projections and curriculum, which can be drawn upon to ensure high quality in the results expected from this component. Given the urgency of the basic studies for preparing the secondary education reform program, some of these studies will be contracted to specialized firms, for which the country already has an installed capacity. MECD personnel will require no special training in order to guide, participate in and monitor work under this component and, with the cooperation of the proposed technical advisers, it is expected that results will be achieved as planned. Moreover, advantage will be taken of the capacities that the MECD has developed during preparation and execution of previous projects for the decentralization and improvement of primary education (BASE/USAID and APRENDE/World Bank).
- 4.2 The technical feasibility of the component for using educational technology in alternative applications will be assured by the planned inputs to that component. The distance education and interactive radio programs have been tested in neighboring countries such as Mexico, El Salvador and Costa Rica. National and international technical assistance will be provided as required for adapting and refining these programs. At the end of the project, the country should be in a strong position to manage them on its own.
- 4.3 Nicaragua has long experience with preschool education, and there is no doubt about technical feasibility of this component. Existing teaching materials will provide the basis for designing new materials suitable for the pilot project. Teachers will be given appropriate training for their role in these activities, and the component provides for ample monitoring, assistance and evaluation to ensure that they can be carried out without technical problems.

###### 2. Socioeconomic feasibility

- 4.4 The work of developing the National Education Plan and preparing the reforms will be accompanied by a program of dissemination and consultation among the country's social and economic sectors. The support and commitment of the various stakeholders will ensure the feasibility of these undertakings. The proposals that are expected

to flow from this component will be the product as much of these consultations as of the technical work to be performed.

- 4.5 The new secondary education structure will provide greater opportunities for students to move into and out of the technical training subsystem, and thus to make better use of the country's educational capacity and take greater advantage of available education resources. By linking curriculum content with labor market considerations, young people will be better placed to adjust quickly to the demands of working life.
- 4.6 The distance education module responds to a clear need of Nicaragua's families and youth. It promises to be a cost-effective and viable means of offering the first cycle of secondary education to young people who otherwise would have no opportunity to continue their studies beyond primary school. As a result of these opportunities and the quality of the teaching that will be provided, young people graduating from the cycle will be better equipped to face the challenges of rural development and to integrate themselves successfully into the country's social and economic life.
- 4.7 Interactive radio will bring higher quality to primary education and will give students at that level a better preparation for moving on to secondary school. It should have the effect of reducing repetition and dropout rates in the first year of the basic cycle, a problem that today places a considerable burden on families and on society, in terms of both private and social costs. The equipment required is relatively modest. The introduction of interactive radio can make use of existing facilities and requires no new infrastructure. This innovation will offer an efficient means of raising the quality of primary school graduates.
- 4.8 With respect to the preschool education pilot program, it will reduce costs by making maximum use of existing school infrastructure. The programs will make use of facilities during vacation periods, thereby avoiding new physical expenditures and taking better advantage of existing infrastructure. The preschool program will help to narrow the stimulus gap for children in divergent socioeconomic circumstances. Preschool preparation will be particularly valuable for children whose parents have no education.
- 4.9 In general, the project's socioeconomic feasibility is enhanced by the fact that all of the pilot modules will be of direct and primary benefit to the poorest students in the country, those living in rural and low-income urban areas.

### 3. Institutional feasibility

- 4.10 The project consists essentially of pilot activities that can be readily carried out by the MECD, and it has the management,

technical and administrative teams capable of doing so. At the same time, all of the components call for the provision of technical assistance and inputs to ensure that the activities can be realized in a timely and effective manner.

- 4.11 In order to facilitate project execution, all of the bodies involved will be assigned clearly defined responsibilities. The government authorities and the working teams have already been engaged in dialogue on the scope of the project and the responsibilities that they will be expected to assume. The national teams have made timely and effective contributions to preparation of the project, and their commitment to its success is assured. Moreover, the provisions for monitoring and supervision will ensure permanent feedback from those responsible at both the central and the local level, so that any problems can be resolved as they arise.

#### 4. Financial feasibility

- 4.12 The International Monetary Fund and the World Bank conducted an analysis of Nicaragua's external debt in 1997, and concluded that its situation would remain vulnerable over the medium term, despite its vigorous adjustment efforts. The report notes that "given the vulnerability of Nicaragua's debt situation, the country requires assistance under the HIPC initiative (Highly Indebted Poor Countries). Nevertheless, access to the HIPC initiative is conditional upon good performance under the ESAF (Enhanced Structural Adjustment Facility)". 5/
- 4.13 Since 1990, the international donor community has committed more than US\$4 billion to Nicaragua. 6/ The World Bank has made it a priority to help the country in re-establishing its financial system, stabilizing its economy and undertaking structural adjustment. The Bank has also supported this objective and expects that over the medium term the country will be able to establish a sound macroeconomic framework. This means that, with projects aimed at developing its human capital (primarily through education), Nicaragua should in due course be in a position to service its external financial obligations satisfactorily.
- 4.14 "Nicaragua is eligible only for financing with FSO funds. Given the importance of Bank support for the country, an aggressive approach to cofinancing is essential for implementing the proposed strategy and at the same time for avoiding a drastic fall in net

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5/ Walker, A. et al. "A manual of strategies and projects of the World Bank and the Inter-American Development Bank in Nicaragua", 1998, p. 27.

6/ Walker, A. et al, op. Cit. p. 10.



financial flows to the country, which could lead to a collapse of its program with the IMF." 7/

- 4.15 On the other hand, the study of education financing in Nicaragua that was conducted as part of the project preparatory work notes that it should be feasible for the country to find sufficient revenues to cover the increased recurrent costs that will be financed through the Supplementary Social Fund during the life of the project. 8/

#### 5. Environmental and social feasibility

- 4.16 Project activities will be focused in rural and low-income urban areas of the country's poorest departments, and will be consistent in all respects with local legislation and standards relating to construction and rehabilitation of infrastructure. All of the requirements established by the FISE will be met, and that institution will in fact be responsible for infrastructure works, which involve only classroom construction on a scale small enough that it should pose no ecological problems.
- 4.17 With respect to its social impact, the project will provide alternative solutions to one of the most pressing social problems in the country: the lack of equity between rural and urban districts. The solutions proposed will make the project socially viable.
- 4.18 From the gender perspective, the project will offer new opportunities to both sexes, and the activities proposed under components 2 and 3 will be of benefit to women in particular. For example, young rural women will be able to participate in distance education close to their homes, which is the only option open to them since - in contrast to boys - local cultural tradition prevents them from going to a city to study.

#### B. Benefits

- 4.19 The definition of long-term educational policies will serve to orient MECD activities towards the pursuit of quality and equity in educational objectives. The restructuring of secondary education, at both the basic and diversified levels, will expand the options available to students, and will open for them new possibilities in various branches of economic activity, while at the same time giving the country the chance to upgrade its human capital over the short, medium and longer term.
- 4.20 Strengthening management of the education system on the basis of decentralization and, in particular, reinforcing participation by

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7/ IDB, Country Paper: Nicaragua, October 1996.

8/ Arcia, G., "The financing of education in Nicaragua", 1998, p. 5.

parents and by community leaders, NGOs and other local interests, will lead over the medium term to the better use of educational resources, and will give civil society a greater sense of ownership over the education process, while making that process more efficient and effective.

- 4.21 Introducing new educational technologies (distance learning, interactive radio) into rural areas will allow for greater coverage and quality in the education available to people in the countryside. The *telesecundaria* program will benefit 5,400 young people (at least 50% of them women) in rural areas, and the interactive radio program will benefit 7,875 students over a three-year period. Until now, these people have played only a limited role in the country's development. The project will give them the opportunity to engage themselves more fully, by equipping them with the tools to develop themselves and to take an active part in social, economic and technological change.
- 4.22 Interactive radio will help to improve the quality of primary education and to enhance student performance. At the same time, it will promote better use of the resources devoted to secondary education by encouraging students in rural areas to prepare themselves for the basic cycle by taking the pre-requisite studies. Improving performance at the basic cycle level and reducing dropout and repetition rates will be a benefit to the country and to society in general.
- 4.23 The prospects for the future expansion of pre-school education on the basis of the pilot mode included in the project will be of direct benefit to 250 children participating in the program, and more generally to the Nicaraguan education system as a whole. The comparative analysis of different modes of preschool education now used in Nicaragua will help the authorities to determine the best manner of expanding the system and increasing its returns, at a low cost.
- 4.24 The project's efforts on behalf of quality education will have a direct benefit by reducing the number of failures and dropouts. Training for uncertified teachers will make a major contribution to achieving these results. It is expected that the financial incentive of a year's salary will be an effective catalyst in encouraging teachers to take part in the program.
- 4.25 The mere offer of secondary education through the distance learning program could be enough to increase enrollment at this level. Nevertheless, the project will also experiment with the idea of stimulating demand through cash transfers to young people from extremely poor families. The goal here will be to reduce inequality of opportunities among different socioeconomic groups, and at the same time to promote a degree of equity in the earmarking of funds for autonomous schools by providing the additional funding they need to consolidate themselves.

C. Project risks

- 4.26 The most significant risk to the success of the education program over the longer term lies in the country's capacity to keep to its commitments under the macroeconomic adjustment program, which calls for imposing sharp restrictions on public spending while redirecting scarce resources to the social sectors. Financing to the social sectors is nonetheless expected to remain stable or to increase, thanks to the funding that will be channeled through the FSS, and the resources that will flow to the country through its participation in the HIPC initiative.

**NICARAGUA**  
**Preparation of the Education Reform Program**  
**(NI-0090)**  
**Logical Framework**

Narrative Summary	Verifiable Indicators	Means of Verification	Major Assumptions
Quality, efficiency and level of the Nicaragua's human	Increase in average years of schooling of Nicaragua's rural and urban population	National household surveys/census	The government assigns priority to in its social spending.
n of the secondary education establish alternative modes of	<ol style="list-style-type: none"> <li>1. Education system operating in a more highly decentralized mode.</li> <li>2. Education strategy and policy established for the long, medium and short terms</li> <li>3. Intermediate education structure more closely articulated with the labor market.</li> <li>4. Preschool education and first cycle of secondary school using cost-effective modes.</li> </ol>	<ol style="list-style-type: none"> <li>1. Annual report of MECD</li> <li>2. Long-term National Education Plan</li> <li>3. Documents on reform of secondary education</li> <li>4. MECD statistics</li> </ol>	<ol style="list-style-type: none"> <li>1. The decision to consolidate education decentralization (school autonomy) maintained.</li> <li>2. The government guarantees financing execution of loan resources.</li> </ol>
education structured in light of economic demands and with the labor market	<ol style="list-style-type: none"> <li>1.1 Long-term National Education Plan approved and in force by end of project year 1.</li> <li>1.2 Secondary education reform approved in project year 2.</li> <li>1.3 20% increase in number of autonomous schools.</li> <li>1.4 New structure for intermediate education designed, including basic and diversified cycles, by end of project year 1.</li> <li>1.5 Graduation profiles from secondary education better aligned with labor market in project year 1.</li> </ol>	<ol style="list-style-type: none"> <li>1. MECD reports</li> <li>2. Ministry reports</li> <li>3. Technical documents on education profiles</li> </ol>	<ol style="list-style-type: none"> <li>1. The MECD decision to work with context of a long-term strategic maintained.</li> <li>2. The decision to strengthen the decentralized educational structure maintained.</li> <li>3. Social and economic sectors successfully work with the reform.</li> <li>4. A relationship of effective coordination established between the educational and occupational training systems.</li> </ol>

Narrative Summary	Verifiable Indicators	Means of Verification	Major Assumptions
<p>distance secondary education mode, modules and interactive radio established, evaluated and</p>	<p>2.1 30 distance secondary schools established; first grade functioning in year 2; second grade functioning in year 3 and third grade in year 4.</p> <p>2.2 135 classrooms built for distance secondary: 45 in year 1; 45 in year 2; and 45 in year 3.</p> <p>2.3 distance secondary schools without access to electricity equipped with solar cells in year 1.</p> <p>2.4 A MECD center established to review, adapt and reproduce materials.</p> <p>2.5 135 distance secondary teachers trained: 45 in year 1; 45 in year 2; and 45 in year 3.</p> <p>2.6 5,400 rural youth (at least 50% females) benefit from distance secondary programs: 900 in year 2; 1,800 in year 3; and 2,700 in year 4.</p> <p>2.7 20 schools offering evening and Saturday classes with self-training modules established, evaluated and functioning in year 2.</p> <p>2.8 60 teachers trained in use of self-training modules.</p> <p>2.9 45 complete primary schools with interactive radio functioning for grades 5 and 6 in Spanish, math and natural sciences.</p> <p>2.10 7,875 students (at least 50% girls) benefit from program in project year 3: 1,575 in grade 5 in year 1; 3,150 in grades 5 and 6 in project years 2 and 3.</p> <p>2.11 540 teachers of Spanish, math and natural science trained to use the program: 270 in grade 5 in year 1 and 270 in grade 6 in year 2.</p>	<p>1. MECD and project reports</p> <p>2. MECD statistics</p>	<p>1. Solar cells will be needed in approximately 20 of the distance education schools established.</p> <p>2. Sites will be legalized and available for classroom construction.</p>

Narrative Summary	Verifiable Indicators	Means of Verification	Major Assumptions
	2.12 45 principals and/or supervisors trained to manage and supervise the program in year 1 of the program.		
mode of preschool education of vacation periods, supported g materials and in operation.	3.1 Pilot preschool programs established and evaluated in 10 centers in project year 3.  3.2 1,629 teaching material kits distributed in project years 1, 2, and 3.	1. MECD and project reports  2. Comparative evaluation reports on different modes of preschool education, and their advantages in light of the pilot experiment.	
mechanisms established for g school autonomy, motivating teachers to take training, and students to stay in secondary	4.1 152 autonomous secondary schools consolidated in project year 4.  4.2 500 uncertified teachers trained by end of project year 4.  4.3 900 students (at least 50% females) in distance secondary program receive subsidy for 190 days of classes during project year 1, and a further 900 students in years 2 and 3.		

## PROCUREMENT PLAN PREPARATION OF EDUCATION REFORM PROGRAM

Procurement for the main program	Financing	Method (US\$000)	Prequalification	Estimated date of publication in SPN
<b>A. Contracting of works</b>				
New construction and rehabilitation	100% IDB	ICB over \$1,500	Yes	4th quarter 1999
US\$1,800 (multiple contracts via FISE)		LCB \$350 to \$1,500	No	
		LS below \$50	No	
<b>B. Purchase of goods</b>				
Computers and furnishings	100% IDB	ICB	Yes	4th quarter 1999
US\$1,100				
Solar cells	100% IDB	LCB	No	4th quarter 1999
US\$100				
Vehicles	100% IDB	LS	No	N/A
US\$32				
Teaching materials and programs	85% IDB	ICB	Yes	1st quarter 2000
US\$1,300	15% GON			
<b>C. Consulting services</b>				
Training (multiple contracts Total: US\$700)	95% IDB	LCB over \$50	No	N/A
	5% GON	LS \$25 to \$50	No	
		FA below \$25		
Printing and promotional campaign (Total: US\$240)	100% IDB	LCB	No	N/A
			No	
Consulting (firms and individuals) (multiple contract Total: US\$2,000)	100% IDB	LCB over \$50	No	4th quarter 1999
(No contract over US\$100,000)		DC below \$50		

DC = Direct Contracting  
 FA = Force Account  
 ICB = International Competitive Bidding  
 LCB = Local Competitive Bidding  
 LS = Local Shopping  
 Q1 etc. = First Quarter etc.  
 GON = Government of Nicaragua

PROPOSED RESOLUTION

NICARAGUA. LOAN \_\_\_/SF-NI TO THE REPUBLICA DE NICARAGUA  
(Preparation for the Education Reform 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 Nicaragua, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a project for the Preparation of the Education Reform Program. Such financing will be for the amount of up to US\$9,400,000, or its equivalent in other currencies, except that of Nicaragua, which are part of the resources of the Bank's Fund for Special Operations, and will be subject to the "Terms and Financial Conditions" and the "Special Contractual Conditions" of the Executive Summary of the Loan Proposal.