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UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D. C. 20523

NICARAGUA

PROJECT PAPER

BASIC EDUCATION

AID/LAC/P-721

PROJECT NUMBER: 524-0329

UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: A (A = Add, C = Change, D = Delete) — Amendment Number: — DOCUMENT CODE: 3

COUNTRY/ENTITY: Nicaragua

3. PROJECT NUMBER: 524-0329

4. BUREAU/OFFICE: LAC — 524

5. PROJECT TITLE (maximum 40 characters): Basic Education

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 09 DD 30 YY 98

7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4)
A. Initial FY 92 — B. Quarter 2 — C. Final FY 97

8. COSTS ($000 OR EQUIVALENT $1 =)

A. FUNDING SOURCE	CURRENT FY 92 B. FX	C. L/C	D. Total	LIFE OF PROJECT E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant) EHR	(4,000)	( )	(4,000)	(27,100)	(2,900)	(30,000)
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S. 1.						
Other U.S. 2.						
Host Country (mostly in- kind)		341	341		7,400	7,400
Other Donor(s)						
TOTALS	4,000	341	4,341	27,100	10,300	37,400

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE 1. Grant	2. Loan	D. OBLIGATIONS TO DATE 1. Grant	2. Loan	E. AMOUNT APPROVED THIS ACTION 1. Grant	2. Loan	F. LIFE OF PROJECT 1. Grant	2. Loan
(1) EHR	041					4,000		30,000	
(2)									
(3)									
(4)									
TOTALS						4,000		30,000	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)
A. Code
B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

To improve the quality and efficiency of primary education in Nicaragua.

14. SCHEDULED EVALUATIONS
Interim MM 09 YY 94 — MM 09 YY 96 — Final MM 09 YY 98

15. SOURCE/ORIGIN OF GOODS AND SERVICES
☒ 000 ☐ 941 ☒ Local ☒ Other (Specify) CACM

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a ____ page PP amendment.)

17. APPROVED BY
Signature: Kenneth L. Schofield
Title: Acting Mission Director
Date Signed: MM 03 DD 21 YY 92

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
MM DD YY

PROJECT AUTHORIZATION

Name of Country: Nicaragua

Name of Project: Basic Education

Number of Project: 524-0329

1. Pursuant to Part II, Chapter 4, Section 105 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Basic Education Project for Nicaragua, involving planned obligations of not to exceed Thirty Million United States Dollars (US$30,000,000) in grant funds from Section 105 account (the "Grant") over a six-year period from the date of authorization, subject to the availability of funds in accordance with the A.I.D./OYB allotment process, to help in financing foreign exchange and local currency costs for the Project. The planned Project Assistance Completion Date is September 30, 1998.

2. The Project has been designed to improve the quality and efficiency of primary education in Nicaragua. To do this, the Project will finance: a package of technical assistance, training, commodities, and related operational support to build-up the institutional capacity of the Government of Nicaragua Ministry of Education (MED); improve the curricula and teaching materials for primary students, and improve the capability and effectiveness of primary education teachers.

3. The Project Agreement, which may be negotiated and executed by the officer to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority, shall be subject to the following essential terms and conditions, together with such other terms and conditions as A.I.D. may deem appropriate:

a. **Source and Origin of Goods and Services**

Commodities financed by A.I.D. under the Grant shall have their source and origin in the United States and/or in Nicaragua, or in any other Central America Common Market Country, except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities or services shall have Nicaragua or the United States (A.I.D. Geographic Code 000) as their place of nationality, except as A.I.D. may otherwise agree in writing. Ocean shipping financed by A.I.D. under the Grant shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the United States. Motor vehicles financed by A.I.D. under the Project shall, except as A.I.D. may otherwise agree in writing, have their origin in the United States.

b

b. **Conditions Precedent to Disbursement**

(1) Prior to the first disbursement under the Grant or to the issuance by A.I.D. of documentation pursuant to which disbursements will be made, the Grantee shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D.:

(a) A legal opinion of the Attorney General of Nicaragua, or other counsel acceptable to A.I.D., stating that this Agreement has been duly authorized, or ratified by, and executed on behalf of the Grantee, and that it constitutes a valid and legally binding obligation of the Grantee in accordance with all of its terms; and

(b) A statement of the name(s) of the person(s) holding or acting in the office of the Grantee specified in Section 8.2 of the Agreement and of any additional representatives, together with a specimen signature of each person specified in such statement.

(2) Prior to the issuance by A.I.D. of documentation pursuant to which disbursements will be made directly to the MED, MED shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D., information to demonstrate that it has in place the accounting, procurement, and administrative systems, and related internal controls to be able to manage effectively and properly account for any funds which A.I.D. may disburse directly to the MED under the Project.

c. **Covenants**

The MED covenants to undertake the following policy reforms necessary to improve the quality and efficiency of the education system in Nicaragua:

(1) Establish a Consultative Policy Mechanism to review, design and implement educational sector policies.

(2) Assign an appropriate number of counterpart personnel from its Normal School Staff to work with Project-financed experts and central MED Project counterpart personnel in the design of primary school curriculum strategy, the design of instructional materials, and in field-testing both the curriculum and the instructional materials to be developed during Project implementation.

(3) Designate 40 demonstration schools to train MED personnel involved in primary education and test

-C-

primary school instructional materials.

4. Establish 12 training centers within the existing 12 Normal Schools to carry out teacher training activities.

5. Establish the necessary mechanisms and assign an adequate number of personnel to maintain and safeguard the vehicles and other commodities financed by A.I.D. under the Project.

Date: March 21, 1992

Janet C. Ballantyne
A/Director
USAID/Nicaragua

Drafted: PDIS:AMDiaz:02/10/92

Clearance:

PDIS:JCloutier		Date: 2/29/92
PEPS:RBurke		Date: 2/3/92
LA:MVelázquez		Date: 3/5/92
GDO:LAyalde		Date: 2/25/92
CO:JCorley		Date: 3/11/92
OFIN:RLayton		Date: 3/18/92
DD:KSchofield		Date: 3/19/92

BASIC EDUCATION PROJECT

PROJECT NO. 524-0329

THIS PP COMPLIES WITH CURRENT AGENCY GUIDELINES ON THE METHODS OF FINANCING AND IMPLEMENTATION AND HAS PROVIDED FOR ADEQUATE AUDIT COVERAGE IN ACCORDANCE WITH THE PAYMENT VERIFICATION POLICY IMPLEMENTATION GUIDANCE.

RICHARD W. LAYTON
CONTROLLER

BASIC EDUCATION (BASE) PROJECT
(524-0329)

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I. SUMMARY and RECOMMENDATION

A. The Problem

Projections show that Nicaragua's primary school age population will grow by over 200,000 during the 1990 decade. Presently, primary school enrollment totals 648,277 students, a total projected to reach 855,200 students by the year 2,000.

The teaching staff is inadequately trained to meet current needs and the deficit is likely to increase given GON funding levels and demographic trends. Currently, 7,000 of the 18,000 primary teachers are uncertified while the remaining 11,000 are certified but poorly trained and supervised.

It is estimated that in addition to the teachers produced by the normal schools, between 2,000 to 3,500 new teachers will be needed to meet student demand in the 1990's, assuming that the student teacher ratio of 34 to 1 remains constant. This means that the number of untrained teachers would total approximately 10,000. Nicaragua's current teacher training program does not meet these needs and cannot improve the quality of the training of those teachers who receive it.

In terms of efficiency, Nicaragua's educational system is trailing behind other countries in the region. Recent studies show that at present its primary education system has the lowest internal efficiency in Central America. Approximately 22 percent of those entering first grade complete sixth grade education and 16 student/years of effort are needed to produce one sixth grade graduate. Averages for Central America are about 55 percent and 10 student/years of effort.

The primary school curriculum was essentially discarded when the new government assumed office in April 1990. One of the first requests of the new GON was to replace the primary and secondary textbooks then in use. USAID/Nicaragua provided $12.2 million to fund the replacement of 7.2 million textbooks. The MED currently lacks the capacity and the funds to replace worn-out books and to adequately design and implement a viable primary curriculum and produce the supporting teaching materials.

Presently, there are large numbers of over-age children in the Nicaraguan primary education system. Over 25 percent of the space in first grade is filled by children who are two or more years older that the norm - seven years of age. This results in a repetition rate of between 40 to 50 percent.

The costs of inefficiency are extremely high. Simply, Nicaragua is not producing a literate and numerate population capable of making informed choices and having skills to support economic and social development. Investment in the critical elements of the school system is necessary to meet current needs and the increasing demand for education.

Efficiency must be improved by reducing costs per student and reducing the repetition rate. Quality must be enhanced by improving instruction and providing appropriate materials that support learning through active inquiry.

The precarious condition of Nicaragua's physical school infrastructure compounds the difficult situation of the school system. Currently, it is estimated that at least 30 percent of the existing 10,041 classrooms do not even meet the minimum standards for an effective teaching and learning environment.

The Government of Nicaragua (GON) Ministry of Education (MED) does not have the institutional capability, technologies nor the funds to deal effectively with the above problems. Both the GON and the MED, however, are committed to improving basic education.

There are six major, key inter-linked constraints which affect the quality and efficiency of primary education and hinder the GON ability to address the problems which its basic educational system now faces : 1. Administrative and technical weaknesses in the Ministry of Education (MED); 2. Lack of GON capability to develop and implement policies affecting the quality and efficiency of education; 3. Lack of properly trained teachers and absence of effective teaching technologies; 4. Inadequate, irrelevant curricula and availability of the related materials for such curricula; 5. The poor condition of schools; and 6. The GON's precarious financial situation, which does not allow the required investments in the sector. The scope of these constraints is discussed in Part II of this Paper.

The Project will address the first four constraints and to some extent the sixth. As discussed further in this Paper, the GON has begun to repair public schools. This GON effort is expected to be complemented by the World Bank (WB). By 1994-1995, the WB is planning to finance a major education sector project in Nicaragua which is expected to include funds for infrastructure, the restocking of books and certain recurrent costs. A WB-sponsored study to assess Nicaragua's needs in the education sector was advertised for bids in early January 1992. The findings will be used to define WB financing for buildings, furniture, etc. Attainment of the Project purpose, however, does not depend on such WB assistance.

B. Project Goal and Purpose

The Project will contribute to the USAID goal of broad-based sustainable growth and the improvement of the quality of life of Nicaraguans. It will do this by helping the GON develop the productive potential of its human resources through an effective basic educational system.

The purpose of the project is to improve the quality and

efficiency of primary education in Nicaragua. Quality will be measured by the number of children completing primary education who have attained measurable skills, based on appropriate testing methods to be developed during Project implementation. Efficiency will be measured in terms of reductions in the number of years for students to complete primary education.

The economic analysis shows that the use of limited resources to attain this purpose is a worthwhile investment for Nicaragua, and that the medium and short-term outcomes warrant such investment. If carried out as planned, the project will set in motion improvements in the quality and efficiency of Nicaragua's educational system that would lead, over a ten-year period, to a significant increase in the percentage of students who graduate from primary education. The improved quality and efficiency of the primary education system would more than double the percentage who graduate without repeating.

Specifically, it is expected that the BASE Project will lead to a 50 percent reduction in repetition in the first four grades and a 20 percent increase in language arts and mathematics test scores. As a result of the Project, the cost per graduate will be reduced by 19 percent. The estimated cost for repeaters will go down from 26 percent of all primary education expenditures now to 13 percent of all primary education expenditures in the year 2000. Proportional gains in the above measures would occur in the intervening years. Chart 1 show the expected Project impact on student repetition.

C. Project Components

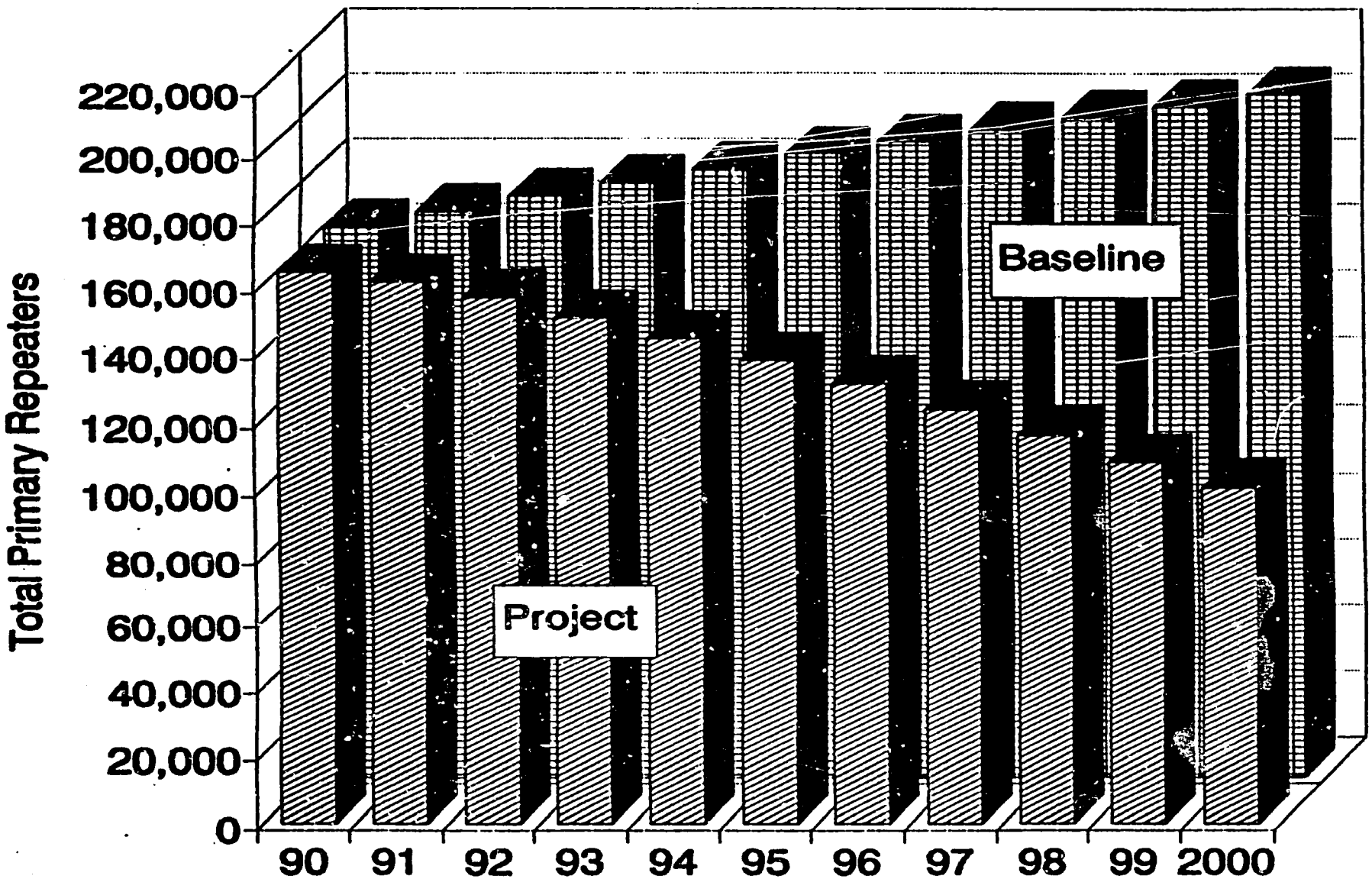
The Project will have three components, which will address the constraints discussed in Part II of this PP, excepting the poor physical condition of schools, which is expected to be addressed by the World Bank starting in 1994. Briefly, the Project will finance technical assistance, training, commodities, instructional materials, seminars, workshops, and policy development/implementation activities under three components which are individually and integrally essential to attain the Project purpose. The components are:

1. *Institutional Strengthening of the Ministry of Education (MED),* under which the Project will provide technical assistance, training and related support to upgrade the institutional capability of the MED as the key public agency which must play a lead role in developing a sustained, relevant educational system in Nicaragua.

A vital activity under this component is assistance to help the MED in reviewing its educational policy framework and in implementing key policy decisions already taken. Key policy

Project Impact on Repetition

Baseline versus Project 1990-2000



decisions to be implemented during the life of the Project are in the areas of decentralization, organizational structure, personnel, resource allocations, and cost recovery mechanisms.

2. *Teacher Training*, under which the Project will help the MED develop a pool of qualified teachers with the capability to use effective, modern teaching methods to provide a sound and relevant education to students.

3. *Curriculum Development and Instructional Materials*, under which the Project will help the MED develop relevant curricula, instructional materials, and evaluation techniques consistent with Nicaragua's needs and development objectives.

Together, these activities will lead to the planned gains in the quality and efficiency of primary education in Nicaragua.

D. **Implementation Arrangements**

The MED will be the GON implementing agency. The MED will be expected to assign a number of appropriate counterparts from key departments which will be involved in the Project. These counterparts would include a representative of the Minister with decision making authority, and representatives from key offices, such as curriculum and textbook planning offices, teacher training, etc.

USAID/Nicaragua will assign a Project Manager (the Educational Development Officer) who will be the principal contact with the MED counterpart(s) at the policy level. The Project Manager will also assure that other USAID-sponsored activities in Nicaragua, such as the Development Training Project, RTAC II, the Vocational Education Project, the Employment Generation Project (under which some schools are being repaired), and other donor activities complement and reinforce the BASE Project.

To facilitate implementation, the Project includes funding for a specialized Project Coordinator (preferably local hire) who will work under the direct supervision of the USAID/Nicaragua Project Manager. This person will monitor the performance of the technical assistance contractor and any other contracts financed under the Project.

A detailed discussion of each component and the related implementation arrangements is contained in Parts IV and V of this Paper.

E. Financing

An estimated A.I.D. life-of-project (LOP) funding of $30.0 million in grant development assistance funds is proposed to finance Project implementation activities during a seven-year period. This funding is planned to be used as follows (figures in $000):

	Amount	Percent
1. Technical Assistance	9,044	30
2. Training	3,189	11
3. Commodities/instructional materials	14,885	50
4. Other Costs (T.A. Firm local personnel travel, supplies, office space, etc.)	2,071	6
5. Local Hire Project Coordinator	211	1
6. Evaluations and Audits	600	2
Total	$30,000	100

By component, the $30 million is planned to be used as follows: 23 percent ($6.8 million) for Institutional Strengthening, 18 percent ($5.4 million) for Teacher Training, 50 percent ($14.9 million) for Curriculum Development and Instructional Materials, and 9 percent ($2.9 million) for other costs, the Project Coordinator, audits and evaluations. This distribution of resources does not necessarily reflect the relative priority of each Project component, as each is individually and integrally vital to attain the Project purpose. Rather, in the judgement of the design team, it shows the best allocation of planned Project funds to address the constraints identified in each area. As Project implementation advances and evaluations are carried out, refinements in the budget may be necessary.

Per Table VI-7A of the Financial Plan, the GON estimates its contribution to be approximately $7.4 million during a seven-year period. This amount is about 20 percent of the estimated project cost of $37.4 million and represents the part of the MED's budget for counterpart personnel, office space and other logistic support directly related to the project. Note, however, that per State cable No. 412672 of December 20, 1991, the A.I.D. Administrator approved a Relatively Least Developed Country (RLDC) status for Nicaragua. This allows the waiver of all or part of the required 25 percent local contribution, if necessary. Because of the extremely precarious financial situation that the GON is facing, it is proposed to waive the balance of the 25 percent contribution. The GON financial situation will be carefully monitored and every effort will be made to increase such contribution, whenever feasible.

F. Project Approval Factors

1. AID/W Guidance Pursuant to State 362614 dated November 4, 1991, AID/W approved the NPD and provided guidance for the

preparation of the Project Paper. The guidance and key concerns expressed in the AID/W cable are addressed as follow:

a) **Absorptive capacity of the Ministry of Education (MED):** AID/W recommended that reorganization and institutional strengthening be an early focus of the project. In this regard, the GON has been very responsive, especially to pre-project mission-funded technical assistance in the critical area of the organizational structure of the MED. During late 1991, the GON approved a functional reorganization of the MED that gave priority to Basic Education and began the process of decentralizing administrative decisions to the municipal level. In this regard, component 1 of the project fully responds to this concern by focusing on strengthening the key planning, decision making, and financial management systems in the MED. The changes in functional structure are also linked to improving the quality and efficiency of basic education.

b) **Policy/legal framework:** As stated above, the GON has made several policy decisions that significantly improve the policy environment as it relates to education. For example, the MED has reorganized to focus on improving the quality of basic education, initiated revision of the curriculum to depoliticize education materials, initiated gradual decentralization of the control of educational activities that more appropriately can be carried out at the local level, initiated cost recovery activities for primary textbooks and charging fees for secondary education. Further, an advisory board to the minister with broad national representation including private education representatives, business leaders, union leaders to the minister has been established for the purpose of informally reviewing and advising the minister on policy decisions. The MED has also begun planning for the medium term having developed a draft five-year national education plan. In addition, the MED's implementation capacity is weak administratively. The structure is redundant partly as a result of unclear direction as to priorities.

All three project components are integrated and mutually address the above concern. The curriculum reform component and teacher training components will improve the quality of primary education by developing new materials that are relevant and appropriate and at the same time improve instructional and assessment abilities of teachers. The institutional strengthening component is linked directly to these quality improvement efforts focusing the ministry to utilize human and financial resources in ways that are more child centered and cost-effective, while improving the MED's implementation capability.

c) **Sustainability:** This concern is incorporated in the design of the project across the three project components. The quality improvements overtime will lower repetition rates thereby increasing student flows and reducing wastage in the system. At

the same time, the institutional strengthening component will focus the ministry structure to better manage the human and financial resources at its disposal.

Moreover, the three project components will actively reinforce the decentralization of certain education functions to local communities allowing them to participate more fully in the education process. Gradually, local communities will assume school building maintenance and textbook custodial functions, thereby relieving the ministry of some of the financial burden and redirect resources to enhance the quality of education. Innovative alternate financing strategies will also be piloted, continuing cost recovery measures coupled with two for one tax credits for private sector donations to a special earmarked account for the specific purpose of financing textbooks, workbooks, and class supplies in grades 1-4.

The cumulative impact of these mutually reinforcing and complementary reforms in policy and process will result in an improved and more cost effective education better preparing future Nicaraguan citizens to participate more fully in a democratic and free market society.

2. Project Analyses. The Project design team which prepared the Project Paper has concluded that the Project has sufficient sound financial, economic, institutional, technical and social bases to be successful. This conclusion is based on the various Project Analyses carried out by both outside consultants and USAID/Nicaragua officers who participated in the design. The design assumes that if the institutional development and strengthening activities are carried out as planned and the GON continues its strong support of policies to improve the quality and efficiency of the educational system, the MED will be able to sustain project activities after termination of A.I.D. assistance.

3. Environmental Threshold Decision. The LAC Bureau Environmental Officer has approved the USAID/Nicaragua recommendation for a Categorical Exclusion because the Project is not expected to have an adverse impact on the environment.

G. Recommendation

USAID/Nicaragua has determined that the project is technically, economically, socially and administratively feasible. It addresses a critical problem affecting the long-term development of Nicaragua and furthers the important USG objective of supporting actions to foster democracy and the overall quality of life of Nicaraguans. Thus, approval of A.I.D. funding totalling $30.0 million in DA is recommended.

II. BACKGROUND, PROBLEM, and CONSTRAINTS

A. Background

Nicaragua has an area of 130,000 square kms. and an est population of 3.7 million, approximately 40 percent of which is rural. Although its average population density of 28 persons per square km. is the lowest in Central America, Nicaragua's estimated population growth rate of 3.2 percent to 3.5 percent per year is the highest in the hemisphere. In contrast, the Latin America's growth rate is estimated at 2.2 percent, while the Central American region reaches an estimated 2.9 percent.

The political instability of the 1980s left Nicaragua in total disarray. When the democratically elected government assumed office in April 1990, investment and production had reached their lowest levels in years, inflation was rampant, the external debt reached a level of $10 billion - equal to over 30 times the value of exports and six times Nicaragua's GDP, and arrears on the debt exceeded $3 billion.

The free enterprise, market orientation of the new government has led to remarkable progress on the economic front. Most subsidies have been dropped, the exchange rate has been unified, price controls have been lifted, the inflation rate has been reduced to single digit numbers, and the number of public sector employees has been drastically reduced. Yet, Nicaragua still has a long way to go to attain economic re-activation, achieve sustained economic growth, improve its public budget situation, and increase the provision of social services to its population.

By most measures Nicaragua is a poor country. With an estimated per capita income of under $500, Nicaragua is now one of the poorest countries in the hemisphere. Other measures of its frail social development situation show a high rate of functional illiteracy, an extremely high unemployment and under-employment rate which reaches approximately 65 percent (705,000 people) of the economically active population, an infant mortality rate of 68 per 1,000 live births, and an extremely weak institutional capability in all sectors. This hampers seriously the country's capability to provide the wide range of social services that the population needs.

The principal administrative unit for Nicaragua's educational system is the region. There are nine principal administrative units, which include six regions and three special zones. Within these nine units, there are 148 *municipios*. Each unit has an administrative office that is part of the Ministry of Education.

The prolonged civil war that ended with the election of a constitutional government on February 25, 1990, inflicted high costs on the country's educational system, particularly primary

education in rural areas. By mid-1985, 800 schools had been closed because of the war, with 27 of them completely destroyed. One hundred and seventy teachers had been killed and another 133 kidnapped. As the war escalated, desertion of teachers grew. Compounding the problem, a depressed economic situation deprived schools of even the most basic supplies such as notebooks and pencils.

Despite this situation, access to basic education is not currently considered a major problem in Nicaragua. In 1990, for instance, the Nicaraguan gross enrollment ratios (GERs), calculated as the ratio between total primary enrollment (grades 1-6) and school-age population, was over 90 percent. This GER compares favorably with the rest of Central America.

B. The Problem

The key concerns which the GON faces are related to efficiency and quality of the educational system. The efficiency of the Nicaraguan system, measured in terms of repetition, dropout, net survival, and the percentage of students reaching sixth grade, is a serious drawback. Recent studies show that at present its primary education system has the lowest internal efficiency in Central America. Approximately 22 percent of those entering first grade complete sixth grade education and 16 student/years of effort are needed to produce one sixth grade graduate. Averages for Central America are about 55 percent and 10 student/years of effort.

Likewise, the quality of Nicaragua's educational system, measured in terms of the adequacy of the curriculum, teaching methods, availability of teaching materials, etc., is poor. There is currently no way to measure the skills attained by students at any level.

Projections show that Nicaragua's primary school age population will grow by over 200,000 during the 1990 decade. Presently, primary school enrollment totals 648,277 students, a total projected to reach 855,200 students by the year 2,000.

The teaching staff required to meet the needs of those attending school and the increasing school age population is inadequate. Currently, over one third of the teachers are unqualified, a rate likely to continue growing unless corrective actions are taken. It is estimated that between 2,000 and 3,500 additional trained teachers will be needed to meet the projected demand during the next decade if the present teacher:student ratio is maintained. Nicaragua's current teacher training system is unable to adequately train teachers.

C. Constraints to an Effective Basic Educational System

There are six major, key inter-linked constraints impeding the GON to address the problems which its basic educational system now faces: 1. Administrative and technical weaknesses in the Ministry of Education (MED); 2. Lack of capability to develop and implement relevant policies; 3. Lack of properly trained teachers and absence of effective teaching technologies; 4. Inadequate, irrelevant curricula and availability of the related materials for such curricula; 5. The poor condition of schools; and 6. The GON's precarious financial situation, which does not allow the required investments in the sector.

1. Administrative and Technical Weaknesses in the Ministry of Education (MED)

The MED has in place the basic organizational structure to become an effective institution. However, its operation is beset by the lack of untrained personnel, managerial weaknesses, and inadequate operating procedures. Lines of authority need to be changed, internal coordination between and among offices need to improve, and its policies need to be harmonized and effectively implemented. Currently, the different organizational units do not have clear definition of their functions; the responsibilities of individuals and offices overlap; and coordination of key departments, such as Planning and Finance, is erratic.

The MED's planning process is highly deficient. It emphasizes the development of inputs almost as an isolated process. There is no system to monitor quality and quantity of outputs, feed the information back to decision makers in a timely fashion, and evaluate the impact of the outputs.

The MED's personnel system is informal at best and improvements are crucial. The system is rudimentary, yet personnel costs account for 86 to 92 percent of the MED budget. Job descriptions and position classification manuals are generally inadequate, there is no merit hiring system nor an adequate performance evaluation system, and a range of related operating procedures to improve the overall institutional efficiency of the Ministry are poor or non-existent.

These institutional weaknesses must be addressed as a vital foundation for sustained improvements in Nicaragua's education system.

2. Lack of Capability to Develop and Implement Policies

Regarding the policy framework, the MED, due to short-term technical assistance provided by A.I.D. as a follow-up to the Education Sector Assessment effort, has already made important

policy decisions affecting the educational system. These decisions include a focus on primary education, revision of the curriculum, decentralization of educational activities and decisions which can be carried out more effectively at the local level, the sale of textbooks, and the charging of a fee to secondary school students.

The Minister of Education has also decided to restructure the administrative and operational arrangements in the MED. This is needed to improve its functioning and establish the solid institutional foundation required for sustained improvements of the educational system.

However, the MED does not have the capability to effectively plan and implement these policy decisions. MED staff members have only limited knowledge of these policies and are confused about their relative priority. Major limitations include: scarce participation of key MED personnel in the policy design process, limited opportunities to discuss and disseminate policies and poor institutional capacity for policy analysis and implementation in the Ministry.

3. Lack of Properly Trained Teachers and Absence of Effective Teaching Technologies

The Education Sector Assessment, completed in March 1991, concludes that the lack of properly trained teachers is a critical impediment to improvements in Nicaragua's primary education system. The present teacher training system cannot produce the number of teachers required to produce the projected demand of a growing student population. Between 2,000 to 3,500 new teachers will be needed to meet such demand in the next decade. In addition, under present conditions, it would take between five and ten years for the in-service accreditation program to prepare existing teachers, assuming no teacher turnover.

The quality of teachers' education is also poor. Pre- and in-service training of primary school teachers do not promote either learner-active methodologies or prepare the teacher as a community agent; rather, they promote a passive teaching role. This makes it difficult for the teacher to use effective teaching methods and work with the community in resolving many existing problems - from the development of teaching materials to the rebuilding of schools.

The Normal Schools cannot meet current demands for teachers. These schools lack adequate physical facilities, the capacity to produce their own teaching materials, effective intensive in-service training programs and good libraries.

The lack of qualified teachers is another aspect of the

problem. The accreditation program for the non-certified teachers has expanded greatly in its nine years of operation, peaking at about 8,400 enrolled in 1990.

Until 1990, perhaps as many as 70-90 percent of the non-accredited teachers were pursuing the Saturday-summer program to receive professional certification. For many it was part of their contract agreement. Cutbacks of MED support for meals and transportation have, however, cut preliminary enrollments by as much as 50 percent in some *nucleos*, thus jeopardizing the entire program.

Data indicate that while the number of "empíricos" has grown, this growth has had no effect on the internal efficiency of the basic educational system. Thus, inadequate training and/or instructional materials may be a cause of inefficiencies regardless of certification.

The regular in-service training program (*capacitación*) is practically non-existent. The infrastructure exists with over 600 technicians at the municipal level, but no support is given to enable them to carry out their responsibilities. This type of in-service training depends almost entirely upon outside funding.

While there are linkages between the pre-service programs at the Normal Schools and the accreditation courses, little or no coordination exists with the other in-service workshops, since they are controlled by different sections of the MED.

The diversity of methodologies utilized in the various in-service training programs, the shortage of materials and the inadequacies of the teachers of these programs has made it almost impossible to set up a continuous in-service training program for all teachers.

At present, there is no single record of in-service training of primary teachers in the country. Even though they have the same clientele, individual sections of the MED plan their own courses and workshops with little knowledge of course content or programming of other sections. In addition, there is no inventory of teacher needs, either by subject area or by grade level and no control over who receives what training and when.

4. Inadequate, Irrelevant Curricula and Availability of the Related Materials for Such Curricula

The quantity and quality of the curriculum and related instructional materials is either inadequate, irrelevant or totally lacking. The MED Curriculum Planning Bureau has a number of experienced classroom teachers who have used instructional materials and have some sense of materials design. Presently, they are working backwards attempting to adapt the curriculum to

the textbooks recently financed by A.I.D. on an emergency basis. The logical process is the reverse - the development of the materials based on the curriculum. This results from a 1990 decision to replace all textbooks.

The MED's Curriculum Planning Section has a technical staff but it lacks technical training in modern curriculum and instruction methods. Personnel need training in curriculum development, materials design, materials production, instructional systems, media design and development, evaluation of materials and programs, and computer applications to education.

5. The Poor Condition of Schools

The poor condition of Nicaragua's physical school infrastructure compounds the difficult situation of the school system. Currently, it is estimated that at least 30 percent of the existing 10,041 classrooms do not even meet the minimum standards for an effective teaching and learning environment.

The physical condition of many schools increase the difficulty of effective teaching. Schools lack desks and lights, roofs leak during the rainy season, and chalkboards are scarred, chipped, broken or too small.

6. The GON's Precarious Financial Situation

The GON's precarious financial situation does not allow the required investments in the sector. The economic problems facing Nicaraguan education as a whole, and primary education specifically, may be the worst in Latin America. Even if the economy can begin to turn around, there is such a long way to go, that relying on economic growth as the motor for educational (and other sectoral) progress is untenable in the short-run.

The Project Description discusses a number of financing alternatives, including cost containment, cost recovery, local level financing, and private sector involvement. The financial and economic analyses show that the GON does not have feasible alternatives in the short-term to finance all the inputs necessary to attain the improvements needed in the area of basic education.

III. PROJECT RATIONALE AND STRATEGY

A. Project Rationale

The costs of poor quality and the inefficiency of the Nicaraguan educational system are extremely high. Nicaragua is not producing a literate and numerate population capable of making informed choices and having skills to support development. Investments in the critical elements of the school system is necessary to meet current needs and the increasing demand for education. Efficiency must be improved by reducing costs per child and repetition rates. Quality must be enhanced by improving instruction and providing appropriate materials that support an effective, active learning process.

If the current primary school drop-out trend and primary school survival rate continues, Nicaragua will have a minimally educated labor force. Currently, barely 22 percent of those who start primary education complete the sixth grade and the quality of education for those who complete the sixth grade is unknown. This poses a serious setback to Nicaragua's efforts at sound, sustained development. Evidence from the more recent economic success stories of Asia suggests that modern development cannot take place until at least 40 percent of the labor force has completed primary education.

As the economic analysis shows, current research has established that education is a critical factor to increase economic productivity. For example, a study that examined the impact of primary education on farmer's productivity showed that four years of primary education provided the minimum literacy and cognitive skills that allowed the adoption of new productive technologies. This increased the productivity of the target group by an average of nine percent.

Another study on the effects of on-the-job training in Peru showed that such training was most effective on workers with higher levels of basic education.

Contributions of education to productivity of workers have also been assessed examining the increases in wages associated with increased levels of education. Comparisons in several countries of discounted costs and benefits associated with higher levels of education show that higher levels of education yield higher wages. The extent of the impact is higher at the lower the level of education - from no education to completion of primary education.

It is also known that education, through its contribution to the quality of the labor force, increases the returns to investments in capital and that is there is an interaction between returns to capital investments and levels of education of

the labor force.

Besides the contributions to economic productivity, education contributes to social and political development. A functioning democracy requires educated citizens who can make informed choices and participate in the increasing roles that a pluralistic society expects of the community. Also, there is evidence that higher levels of education of mothers are associated with increased child health and reduced mortality and fertility rates.

Evidence available from other countries, and indirect evidence available for Nicaragua, suggest that the benefits which can be expected from increasing the education levels of the population could be as significant in Nicaragua, if not more than in other countries.

In sum, the future economic and political development of Nicaragua rests on resumed economic growth. In an increasingly global economy, and given current trends to develop regional blocks (such as those resulting from the trade agreement between the US and Mexico), Nicaragua's challenge is to increase the productivity of its labor force to levels comparable to those of other countries in the hemisphere, and eventually, to those of the most dynamic economies in the world. Quality, efficient basic education must be provided to achieve this.

B. Project Strategy

Based on the conclusions of the economic analysis, Project resources will focus on improving the quality and efficiency of primary education, in contrast to focussing on other areas within the education sector. The reason for this focus stems from the findings of studies showing that the extent of the impact of investments is higher the lower the level of education - from no education to completion of primary level of education. Such studies on the rates of return to education (in Venezuela) show that primary education has returns of 24 percent, secondary education 12 percent, and higher education 15 percent.

Accordingly, the Project will finance a package of inputs aimed at improving the quality and efficiency of primary education. These inputs consist of technical assistance, training, commodities, and operating costs to help the GON address key problems of its basic educational system. Assistance will be provided to: (1) upgrade the institutional capability of the MED as the key public agency which must play a lead role in developing a sustained, relevant educational system in Nicaragua; (2) develop a pool of trained teachers with the capability to use effective, modern teaching methods to provide a sound an relevant education to students; and (3) develop relevant curricula and instructional materials consistent with Nicaragua's needs and

development objectives.

These types of project activities are essential and are individually complementary to each other. For example, assistance to upgrade the capability of the MED is necessary because without improvements in the MED's management and administrative capacity, other improvements needed in Nicaragua's educational system, particularly to develop better teachers and a relevant curriculum, cannot be implemented. Likewise, the MED will not be able to produce the type of educated workforce Nicaragua needs unless it can develop an adequate, motivated teaching staff equipped with the appropriate curricula and didactic materials.

The project, mainly through advisory services and policy dialogue, will also help the MED in establishing a sound legal and policy framework for lasting and sustained improvements in its educational system, with emphasis on primary education. Specifically, the Project will help the MED review, set priorities, and implement rational policies. Issues to be addressed on a continuing basis during project implementation include resource allocation policies, privatization, personnel selection, training and retention, curriculum, teacher training, decentralization, etc. Details of the policies to be reviewed during project implementation are included in the Project Description Part of this PP.

Project activities will deal intensely with the first four constraints discussed in Part II of this PP: administrative and technical weaknesses in the Ministry of Education (MED); weak MED capability to implement policy decisions; lack of properly trained teachers and absence of effective teaching technologies; and inadequate, irrelevant curricula and availability of the related materials for such curricula.

All the above activities focus on providing sustainable improvements in primary education, which is critical to sustained economic, political and social development.

USAID/Nicaragua and the MED have started discussions with the World Bank (WB) regarding its proposed assistance plans for Nicaragua. There are preliminary indications that the WB is seriously considering financing in the educational sector that would complement current USAID and MED efforts, particularly to address the constraint of the poor conditions of schools, in addition to recurrent costs based on the implementation of mutually agreed policies. As designed, however, this USAID-sponsored project stands on its own. The planned project activities must be carried out under any scenario to attain the GON's announced priority goal of improving the quality and efficiency of the primary education system.

Finally, the solution of the last constraint -the GON's precarious financial situation - entails concerted efforts by the GON and the donor community, at least in the short and medium-term. The long-term solution involves a mix of efforts including sustained actions to promote economic growth, policy dialogue to encourage the rational allocation of resources consistent with GON priorities (which include primary education), cost containment, community participation, etc., as discussed in the economic and policy analysis section.

A worthy MED effort to generate additional resources for the educational sector is currently underway by charging the equivalent of US$2.00 to every secondary school student. The MED is also planning to request a voluntary contribution (of $2.00 from every primary public school student). As further discussed in this PP, the success in generating resources from this initiative is now uncertain. To the extent that such resources are generated, the MED plans to use them to improve teachers' compensation as one of the measure to attract and retain qualified personnel. In addition, the MED began selling textbooks to those students who could afford them and has generated a textbook fund that currently totals approximately $1.0 million. These revenue generating activities are being resisted as all education was provided free under the previous government.

C. Relationship to the A.I.D. Strategy

The Project is consistent with the LAC Bureau and USAID Nicaragua objective of increasing access to primary education and improved efficiency in the educational system. The recently approved USAID/Nicaragua Country Development Strategy Statement (CDSS) for FY 1991-1996 lists basic education as one of the key objectives under the social needs strategy. It justifies assistance in this area on the basis that education plays a critical role in both economic growth and democratization and contributes directly to personal well-being and potential.

C. GON and Other Donor Programs

1. Government of Nicaragua Efforts

The GON has an explicit commitment to education. This commitment has a broad base of support which extends beyond the government coalition as suggested by the fact that education is not one of the many themes included for discussion and negotiation in the current policy dialogue the GON is carrying out with the main government coalition and with the FSLN.

This broad-based support is suggested also by the fact that the GON has been able to carry out transfers of expenditures from Defense to the Education Sector. Education expenditures as a

percentage of total government expenditures increased from 8.8 percent in 1989 to 14.6 percent in 1990 and to 18 percent in 1991. Defense expenditures, in contrast, declined from 39 percent of government expenditures in 1989 and 1990 to 20 percent in 1991.

Within the educational sector, the GON is assigning top priority to primary education. Indeed policy public statements have been backed by budgetary allocations. An analysis of the GON budget shows that the share of primary education in the total education budget increased from 26 percent in 1990 to 34 percent in 1991.

One main goal of the MED is to increase the availability and enhance the quality of its educational materials. This requires the planning, design and production of new materials and the re-training of its personnel. The MED's planned efforts along these lines are contained in its 1990 Guidelines, which call for the MED to focus its efforts on: curriculum change, academic freedom, advancement of teachers, stimulation of academic production, democratization and a greater role for parents, support for private education, bilingual and inter-cultural education.

Attaining the MED's objectives in these areas requires a mix of adequate resources - human, technological and financial - which the MED does not have. In November 1991, the MED made the politically difficult policy decision to charge ten Córdobas (US$2.00) to each secondary student attending public schools. However, the degree of success in implementing this policy is unknown given the overall poverty situation of the country and the absence of a proven mechanism to carry out the policy. In the best case, this source of funding would be very limited and not nearly enough to cover a significant part of the investment required in the education sector. Another worthy GON effort is the aforesaid policy of selling textbooks to generate resources.

In addition, the GON is partially addressing the constraint of inadequate infrastructure through its Social Emergency Investment Fund (FISE), which includes GON and A.I.D.-provided funds for social infrastructure projects, including the repair and rehabilitation of schools. FISE expects additional financing from other donors, particularly the Interamerican Development Bank (IDB), which already provided $3.0 million for such activities.

2. Other Donor Efforts

The World Bank (WB) is expected to be the other main donor providing assistance to the GON in the education sector. Currently, the WB is assessing Nicaragua's needs in the social sectors and its plans include assistance in the area of

education. However, given WB's project development and approval cycle, such assistance may not materialize until 1994, except for urgent technical assistance which could subsequently facilitate the implementation of future WB sectoral activities and the proposed A.I.D.-sponsored Basic Education project. Preliminary discussions with WB representatives indicate that any WB project in the education sector will be designed to assure that it complements the proposed AID assistance. The amount of WB assistance, however, is not yet known.

Besides the $3.0 million mentioned above, the IDB is expected to provide up to $15.0 million in additional financing through FISE for social infrastructure activities, including the rehabilitation of schools.

UNICEF is conducting a socio-economic analysis of the situation in Nicaragua. This analysis will serve as a planning document for UNICEF's investment strategy for the next two years. Preliminary indications are that UNICEF will continue to work in the same areas in which it has traditionally worked in Nicaragua. These include: early childhood development, especially the lower grades; non-formal and community education; and education of the disabled. Adolescent females and women of child-bearing age will also be a focus as will out-of-school youth.

Other donors, including the Governments of Norway, Italy, and Finland, and some non-governmental organizations are sponsoring a number of small activities in education ranging in value from $45,000 to under $800,000. However, these are isolated efforts which, although helpful, do not come close to addressing the critical problems which Nicaragua's primary education system faces.

IV. PROJECT DESCRIPTION

A. Goal and Purpose. The Project will contribute to the USAID goal of broad-based sustainable growth and the improvement of the quality of life of Nicaraguans by helping the GON develop the productive potential of its human resources through an effective educational system. The purpose of the project is to improve the quality and efficiency of primary education in Nicaragua.

B. Project Outputs. The proposed Project will finance technical assistance, training, commodities, studies, certain primary school materials (such as blackboards and posters) and local project implementation costs necessary to produce the major outputs listed herein, by component, to attain the Project purpose.

1. *Institutional Strengthening of the MED*

-- At least 600 MED employees, national school supervisors and municipal level employees trained on educational planning, policy formulation and implementation processes, management and administrative skills, accounting, budgeting, and financial management, the MED school supervision system, and on the implementation of a management information system.

-- A consultative mechanism established to review and formulate educational sector policies and develop action plans for their implementation.

-- An employee merit hiring and promotion system, including an employee evaluation mechanism, established.

-- Manuals on MED personnel policies and procedures developed.

-- A Management Information System established.

2. *Teacher Training*

-- A Basic Education Guide developed and 20,000 copies distributed to primary education teachers, MED personnel, normal schools and municipal level personnel.

-- A Master Teacher Training Program established.

-- 12 laboratory schools within existing Normal Schools established.

-- Primary education demonstration schools established.

-- Approximately 2,800 Central MED decision makers, Normal

School professors, practice teaching teachers, demonstration school teachers, methodologists, supervisors, parents, and community leaders trained on the Basic Education Guide and on subjects related to improvement of the quality of basic education.

-- 120 master teachers from the private sector trained.

-- 12,000 primary school teachers of grades 1-4 trained.

3. *Curriculum Development and Instructional Materials*

-- A revised, relevant curriculum developed for primary education students. New curriculum reflects revisions in language arts, mathematics and civic teaching materials.

-- 7,500 new teacher's guides produced and distributed.

-- 7,500 teacher's guides created for existing texts.

-- New instructional materials developed for grades 1-4 in language arts, math, and civics.

-- Costs and materials recovery mechanisms developed leading to a 10 percent increase in cost recovery over 1991.

-- Procedures for student assessments and grade-level competencies developed and tested as new evaluation instruments.

-- 2,500 learning kits delivered to primary schools nationwide.

C. End of Project Status

-- When the Project ends, in FY 1998, Nicaragua's basic educational system will be expected to be managed by a strong MED, using an effective and relevant curriculum taught by an effective and well-trained cadre of career teachers.

-- The quality and efficiency of basic education in Nicaragua would have improved as measured by:

** an increase from 22 percent to 30 percent of labor force with primary education,
** 50 percent reduction in repetition in first four grades,
** 20 percent increase in language arts and mathematics test scores,
** improvements in academic achievement,
** an increase in primary school completion
** a decrease in years to produce a 6th grade graduate
** a reduction in the dropout rate

Please note that baseline information to measure progress in reaching some of the end of Project indicators was not available during the Project design period. The Information and Evaluation Plan provides for the compilation of such information. As information is compiled during the Project implementation and evaluation process, indicators will be refined as necessary.

D. **Assumptions**

Attainment of the Project purpose assumes political stability, an atmosphere of receptivity in the MED for outside assistance in the politically-sensitive educational sector, and the availability and timely provision of A.I.D. funds for the project.

E. **Description of Project Components**

The three Project components are inter-linked and must be undertaken in an integrated manner to attain the desired impact in improving the quality and efficiency of primary education. Overall, the activities under the Project components will address the problems and constraints, discussed in Part II of this paper, excepting the poor physical condition of schools. This constraint is expected to be addressed by the World Bank as part of its proposed education sector assistance program for Nicaragua. A WB-sponsored survey of the education sector infrastructure needs is already underway.

1. *Institutional Strengthening of the MED Component*

A. **Introduction**

This component will address one of the key constraints which impedes improvement in educational quality and efficiency in Nicaragua -- institutional weakness in the MED. Its design is based on the findings of the institutional analysis (Annex 8.c.), as summarized in Part VII of this project paper. The key findings which the component will address include:

-- the MED has modified its organizational structure but responsibilities and relationships have not been clearly defined;

-- the MED lacks sound organizational sub-systems in the areas of personnel, payroll and records, planning, budgeting, and control.

-- the MED has set a policy agenda to improve the educational system but lacks the capability to implement it effectively;

-- the MED's new policies of reorganization and

decentralization, and emphasis on quality and efficiency in basic education need to be turned into a feasible plan that can be implemented;

-- overall, the MED lacks trained human resources and adequate materials to support the implementation of the structural changes undertaken or in the planning process; and

-- the MED needs to improve its information collection and analysis capability to support its decision making process.

B. Detailed Component Description

The Project will finance a package of technical assistance, training, commodities, and related local costs to help the MED deal with these problems. This assistance is described under three categories: 1). Improving Central MED Operations; 2). Improving the MED Policy Formulation and Implementation Capability; and 3). Improving the MED's Management Information System.

1). Improving Central MED Operations

The Project will provide the MED with internal systems of management at the Central level which are needed to give sustained, uninterrupted support for basic education. Planned technical assistance, training and commodity support will improve the effective direction and control of human and material resources in the Central MED and will develop, and sustain the skills and abilities of MED managers and supervisors to analyze, direct, and control MED actions.

a. Technical Assistance

The Project will finance the services of one long-term Administration/Institutional Development Advisor, approximately 77 person-months of short-term assistance and related local personnel to strengthen the MED's capability, particularly as it relates to improvements in the quality and efficiency of basic education. The Administration Advisor will work at the central MED, will have the Directors General of Administration and Planning as day-to-day counterparts, and will be available to advise the Minister, when required.

The long-term advisor will also act as Chief of Party (COP), and will be responsible for the coordination of all activities to improve the MED's administrative capacity and organization. This person will assure that these are implemented as necessary to support the sustained functioning of the other project components. The key tasks of this advisor will include:

-- Coordinate the work of the external team of advisors to be

provided through a qualified U.S. firm.

-- Design and implement a planning process in the MED as a decision-making tool. This will entail a detailed analysis of the present planning process, a report on recommendations for its improvement, and advisory assistance to concerned MED staff on the implementation of such recommendations.

-- Conduct a detailed analysis of the MED's present system for adopting, recording, disseminating, and executing organizational policies and advise concerned MED staff on the implementation of improvements to the system. For example, among other things this analysis will examine the use of staff meetings or other devices to set organizational policies, the publication of these policies by memorandum, circular, or other means, their filing and availability for consultation as a permanent record of these polices once adopted, the assignment of responsibility and the follow-up mechanisms used to oversee compliance.

-- Plan and facilitate a yearly two-day planning and priority setting retreat for the Minister and MED Directors General. This retreat will include a report on progress of the project and a priority setting exercise for the next year. It will also refine the planning process by setting yearly priorities and policies to support them.

-- Design and carry out an on-the-job training program for selected MED personnel on MED management issues, objectives and priority setting. This task may include a yearly, 3-day workshop/seminar for approximately 20 MED managers.

-- Help the MED Planning Office in the design and implementation of a study on the contribution of administrative improvements to the delivery of primary education services. This study will answer the question of what contribution improvements in the MED's administrative systems make to the delivery of quality, efficient basic education. This study will pilot test the MED's installed capacity for policy analysis and will provide crucial information for better targeting MED's resources and those of future international donor-sponsored projects.

Short-term specialists will complement the COP's efforts to help the MED upgrade and modernize its administration. These specialists will develop and implement new systems and procedures where needed and will help to strengthen existing ones. The key offices that impinge either directly or indirectly on the ultimate project aim of improving the quality and efficiency of primary education will be particularly targeted for short-term technical assistance. The assistance will be given by U.S. or third country specialists in several key areas of the Central MED

as follows:

(1). **General Directorate of Planning**

-- One Planning and Policy Analysis Expert for approximately 3 months to review MED basic education plans and program goals and make pertinent recommendations. This expert will also assist in the design and implementation of a model of the MED planning system - its elements, staff utilization, enrollment projections, and basic system flow statistics.

-- An Evaluation Expert for a period of up to 6 months (two tdys) during the second year of the project will review the MED's evaluation capability and make recommendations for improvements. In addition, this expert will: (a) assist the evaluation unit of the MED Planning Directorate in the design and execution of a formative evaluation of the Basic Education Project; (b) train and supervise the unit in developing a project management and tracking system, and (c) provide on-the-job training to MED counterparts.

(2). **Human Resources Office**

-- One Human Resources Specialist will be provided for up to 8 months during the LOP to help in: developing a merit and job classification system in the MED, designing sound recruitment and selection process and procedures, and in the design and execution of a personnel performance appraisal system. The performance appraisal system will focus on three areas: (1) administrative and management appraisal; (2) teacher training; and (3) the Directorate of School Supervision. Tentatively, this expert will work for two 3-month periods in the first year of the project and 2 months during the fourth year.

-- One Record Storage Specialist will work with the Records and Payroll Office for 4 months in the project's first year in periods of two months each. This expert will: assist the personnel office in conducting an inventory of personnel records kept by the MED; review alternatives for physical storage of the records and make recommendations to the MED on cost effective storage alternatives; survey the use of the records and assist the personnel office in the design of a useful, cost effective index system for records access; and train MED employees on the implementation of the system.

(3). **Training Office**

-- A Training Specialist will provide technical assistance to the new office of Training in Human Resources. Specific tasks include: (a) assist Training Office personnel in conducting a training needs assessment and in designing and implementing a training plan for central MED and municipal personnel involved

in basic education activities; (b) design a system to carry out training needs assessments and train concerned MED personnel; (c) assist in developing and testing 3 training demonstration modules using video instruction; (d) assist the Training Office in preparing and carrying out workshops on performance appraisal, management, and office skills and administration (see 2.,a. below). Tentatively, this expert will work for approximately 3 months in year one to conduct the needs assessment, return for 3 months in year two and year three, and 2 months in year four.

(4). **Finance Office**

-- A Budgeting Specialist will be provided for approximately 3 months to assist during the early stages of Project implementation to help in the design of a suitable system and manual for the MED to prepare its yearly budget in accordance with the GON budget cycle. This specialist will work in the General Directorate of Administration. This person will also help the MED Budget Office in the preparation of a budget development manual, which takes into account GON and MED priorities and emphasis on primary education.

-- An Accounting Specialist will work for approximately 3 months at the beginning of the Project to help design a cash accounting system for the Central MED. This expert will review the MED's present petty cash and cash accounting system and recommend improvements. Tasks include the development of a list of all MED accounts and the office or person responsible for each account.

(5). **General Services**

-- A specialist in Logistics and Storage will be provided for 6 months during the second year of the project to build up the capability of the General Services Office. This specialist will review the MED's system for receiving, storing, and shipping materials with special emphasis on textbooks and related instructional materials, and will recommend pertinent improvements. In concert with the Director of General Services, this specialist will also assess the MED's storage and security needs at the central Ministry and the municipalities and will help to identify pertinent local technical assistance under the project.

-- Approximately 12 months of local technical assistance will be provided to identify suitable local (e.g. departmental and municipal) storage options for materials and help the MED in establishing well-functioning storage facilities, develop a security system and design a physical auditing system for MED warehouses and materials.

In addition to the above technical experts, the Project will finance: (a) the services of a Project Coordinator to work with USAID USDH Project Manager in the overall day-to-day management and monitoring of the Project, (b) the services of an local Administrative Officer, who will work under the supervision of the LT advisor in the overall management and coordination and logistic support of project activities. This person will be responsible for office management of the contractor's office and supervision of office personnel. This person would supervise an office staff of 5 local hires consisting of 2 secretaries, 2 drivers, and 1 administrative assistant/accountant. The Executive Officer will also be responsible for accounting and procurement. This person should have experience in office management, accounting, and, if possible, USAID procedures.

b. Training

The Project will finance local and external training as a key means to upgrade the institutional capability of the MED. Most of the training will be provided by the aforesaid project-funded long and short-term specialists. These specialists will be expected to develop training programs for their counterparts and concerned MED personnel as part of their scopes of work. To the extent feasible, these experts will be required to develop training modules in video tape to be used for periodic training activities as part of the institutionalization process.

All project technical specialists who design and install systems (e.g. budgeting personnel) will consult with the MED Training Office for course design purposes. Then they will be video taped giving a formal presentation and in follow-up on-the-job training sessions for their counterparts and other employees of the offices for which they provide technical assistance. A training specialist will work with the MED to film and develop these tapes as instructional modules. The use of video technology will provide a way to sustain the investment in training after the end of the Project. It also builds a capacity for training that does not require significant recurrent costs to maintain.

Using this approach, the following people will be trained either on-the-job or through local seminars and workshops:

-- 20 MED executive staff (trained by the long-term advisor COP) in administration and management in on-the-job sessions during year one.

-- 120 MED managers and employees trained in consultative management by the long-term advisor over the LOP.

-- 60 MED officers trained in new evaluation, planning, personnel, accounting, and budgeting systems through on-the-

job training by specialists in year one.

In addition, other short-term training programs for use in workshops will be developed by the MED Training Office with the help of a short-term Training Specialist. As result of this effort, the following MED employees will be trained:

-- 100 administrative and clerical employees in general office skills and administration through ten 15-day training courses for 10 people during years two through four.

-- 15 employees in general management topics during years two through four through two 10-day courses to be offered by the Human Resource Office.

-- 200 MED personnel on the use of administering performance appraisal instruments.

Besides, Project-funded experts will build up the capability of the new MED Training Office so it can design and carry out effective training programs in institutional procedures at both the central and local levels. Plans are to assist the Training Office in planning and carrying out 21 five-day workshops for municipal and local level employees. These workshops will train:

-- 153 municipal level employees in MED management systems and leadership style.

-- 153 municipal level employees in accounting, budget preparation and financial management.

-- 30 MED national supervisors and municipal employees in supervision principles and procedures and the MED school supervision system.

Training, mostly short-term, in the United States or in third countries will complement the above local training activities. The exact content and timing of the training courses will be developed as a result of a training needs assessment to be carried out during the first year of project implementation, expectedly shortly after arrival of the U.S. long-term advisors. These courses will be tailored to the needs of specific MED offices. The key training fields are expected to include: financial management, inventory management and planning, personnel, and general administration. Participants to be trained, mostly in Spanish, will include approximately:

-- 80 MED managers on general public administration, budgeting, personnel, and planning aspects.

-- 12 MED personnel in specialized areas such as job classification and wage and salary administration.

-- 25 persons in data planning, collection, and analysis.

-- 25 persons in project management and program evaluation.

-- 12 Central MED managers in budgeting and financial control.

c. Commodities

The Project will finance certain commodities required to complement the technical assistance and training efforts aimed at improving the MED's institutional capacity. Planned commodities under the institutional strengthening component include computers and software to support the automation efforts and the sound functioning of personnel, planning, financial, training, and related management systems to be developed with the help of U.S. experts. These commodities are detailed in Annex 3 and Annex Automation Support). A summary of the planned commodities, other than those for the Management Information System, follows:

-- 4 VCRs, monitors, cameras and editing equipment for the Training Office.

-- 8 photocopiers for each General and Specific Directorates of the Planning and Administration Office.

-- 15 electronic calculators for the Finance Office.

In addition, to support the implementation of key policy decisions taken by the MED, the Project will finance certain commodities to be used at both the central (new Directorate of School Supervision) and municipal levels (the 16 Chief Municipal Delegations). The identified commodities will strengthen the link between these offices, the collection of educational statistics to track basic education and improve communication and feedback of the results. Included in these commodities are computer hardware and software per the attached annex (Information Support). These commodities will also be utilized to support rapid and accurate accounting and inventory of curriculum and educational materials described under the Curriculum Development and Instructional Materials component. Planned commodities include:

-- 17 four wheel drive vehicles, including one for the overall MED Project Coordinator and 16 to support national school supervisors and MED municipal delegations.

-- 18 photocopiers, one for each of the chief municipalities in each department;

-- 18 fax machines, one for each of the chief municipalities in each department and two for the General Directorate and Sub Directorate of Educational Supervision;

-- 1 radio base station and 16 links; and

-- Up to 100 mountain bikes for local supervisors. Although these bikes will not fully meet the transportation requirements of the approximately 450 local school supervisors, their use on a pilot basis represents a cost-effective alternative in some localities, particularly in rural areas. Designed and geared for rough terrain, they are rugged, long lasting, and require simple maintenance. With only minor upkeep, most will last far beyond the end of the project. The MED is also planning to provide as part of its contribution motorbikes to these supervisors. WB financing is expected to cover any remaining gaps in the solution of the transportation problem for school supervision at the local level.

Project also will provide funds to purchase office equipment and furniture needed to support the work of the technical assistance team. Planned commodities include: 6 desk top computers and printers with appropriate hardware support, software, and stands, and up to 6 portable computers and portable printers, 1 fax, 10 desks and desk sets, and 4 vehicles.

d. Special Studies

Several studies may be necessary to complement the existing information base or to help in the implementation of project activities. Such studies include a training needs assessment to help in the final design of a detailed training plan, and a study to evaluate the capacity of municipalities to participate effectively in the MED's decentralization plans.

Another possible study could focus on the contribution of management and administration to efficiency and quality of basic education. This topic has never been studied in any concerted fashion. It will have two important impacts. First, it will provide information about the link between these two important variables for other projects and examine the question of what alternative improvements and methods in policy and administration will influence educational outcomes. Second, knowledge about which alternatives are having the most effect would be used to more sharply focus project activities during the life of the Project.

2). Improving the MED Policy Formulation and Implementation Capability

The Project will support the MED's national level policy and reorganization efforts. Specifically, planned assistance under this activity will:

-- Help the MED in the implementation of policy decisions

already made, particularly in the areas of decentralization and curriculum reform.

-- Help the GON and the MED in defining and implementing a budget allocation process which is consistent with the GON announced sectoral priorities for the country (education is a top ranked priority) and its emphasis on primary education.

-- Study, define, and plan for the phased conversion of the Central MED from an institution which directly administers the entire educational system to a decentralized approach through which the MED will focus increasingly on building an implementation capacity at the local level. This means a strong monitoring and evaluation role for the MED.

-- Support the implementation of the revised functions of the new Central MED organization and the development, testing, evaluation, and installation of sound and effective management procedures.

The Project will aid the MED's policy development and implementation efforts mostly through technical assistance. The aforesaid Chief of Party (Administration/Institutional Development Advisor) will also play a lead role in helping the MED in defining policies and developing the related implementation plans for such policies. One key aspect of this role will be to identify short-term technical assistance to help in the design and implementation of such policies as required. Specifically, the COP, assisted by local and U.S. short-term consultants as required, will:

-- Work with the MED Minister and the National Education Council to set up a consultative process and a policy agenda for education. This would consist of group facilitation and organizational development activities and would take place at regular council meetings and a yearly retreat/seminar sponsored by the project. The COP will assist MED counterparts in planning and conducting these retreats. Part of this planning will be the arrangement of observational visits to other countries for council members. The purpose of these visits will be to observe and learn from similar councils in action and education systems in other Latin American countries.

-- Conduct a study on the implementation capacity of municipalities to manage and contribute to education at the municipal level. The study will:

** examine the existing local/community level capacity to support basic education and the activities already taking place. This includes examining the feasibility of continued decentralization to the municipal level and the

possibilities for community control and involvement.

** evaluate alternative models of deconcentration and decentralization of activities related to basic education and examine their suitability for adoption given the existing capacity.

** include a phased implementation plan for the resulting recommendations.

It is envisioned that the short-term technical assistance requirements to carry out these activities will include:

(a). a Public Administration Specialist who will start working during the early implementation stages for 4 months and will return twice yearly for 2 months until the project's end.

(b). a local hire Municipal Economist specializing in municipal taxation and revenue generation. This person is expected to be funded for 6 months to study the feasibility of developing alternative sources of revenue to help municipalities take over or contribute to educational finance. Among other tasks, this person will:

** examine local school maintenance, teacher pay, and instructional materials as possible areas of revenue generation.

** examine municipal and local taxation systems and economies to assess their revenue generation possibilities.

** examine both the desirability of instituting and the MED's capacity to administer fees or other charges.

** review revenue and financing options and make recommendations for action to the MED.

(c). One local hire Organizational Policies and Procedures Specialist for 6 months to help define the organizational functions and responsibilities of the new MED offices (e.g. Planning, School Supervision). In addition, this expert will:

** work with the Office of School Supervision to develop its functions, policies, and procedures and to help organize the new Offices of Departmental Coordination.

** review alternatives for the possible relationships of these offices and will make recommendations to the Directors and the Minister.

** provide technical assistance to the aforesaid offices to define functions and to develop procedures and policies.

** assist in the design and execution of a manual of organizational policies and procedures and a manual of procedures, including forms and instructions for the office of school supervisors.

3). **Improving Management Information**

An effective Management Information System (MIS) is necessary to support the activities under all project components, the overall operation of the MED, and facilitate evaluations of the Project impact. Activity A - Improving Central MED Operations - emphasizes the building of a management capability within the MED, both centrally and in support of the progressive decentralization of MED administrative functions. In order to accomplish this, the MED must also develop the information base required for the analysis which supports rational decision-making and planning. This information base must function as a useful resource throughout the administrative structure.

At the central level, the focus of this MIS will be on the key administrative elements of personnel management, budget and finance, inventory and educational materials, and educational statistics and planning. The improved data collection system will be supported by an automated data processing capability which will provide the MED with an ongoing analysis capability and the capacity to prepare statistical reports, models, and projections. At the municipal level, it will support the efforts of school directors, municipal delegates, and supervisors.

The automated system itself, will be simple and easy to learn and maintain. The rationale, suggested list of equipment, and recommendations for its distribution are discussed in the Automation Support Attachment to the Institutional Analysis in this Project Paper.

Project support to develop the MIS will consist of short-term assistance to help the MED in the design of the system, commodities (computer systems, software, supplies, etc.), training (both of end-users and MIS development staff), and locally-contracted services (for equipment maintenance, upgrading and software development). A summary of these inputs follows:

a) **Technical Assistance**

The Project will provide:

-- one short-term consultant in educational systems design and implementation to help the MED for a total of 9 months in establishing the systems design and implementation plan. This specialist will provide 4, 3 and 2 months of services in Project years 1, 2 and 3, respectively.

-- one short-term consultant will assist the MED for a total of 7 months in the design of new applications and promotion of the utilization of system products. This specialist will provide 1 month of services in Project years 2, 3 and 6, and 2 months of services in each of Project years 4 and 5. These services are considered essential to maintain a systems services development momentum in the MED, and to ensure that opportunities for expanded use of the information system are responded to by the Informática Directorate.

Funds will also be provided to contract the local development of the software systems required for implementation. The MED does not and is not expected to have the capability to develop the number and type of applications required for MIS implementation. MED salary structure also does not permit the hiring of personnel with sufficient technical skills to develop the software contemplated by the Project. Software development funds will be expended during Project years 1, 2, 3, and, to a limited extent, in year 4.

(b) Training

-- A total of 90 person-course short-term training courses for end-users of spreadsheet, word processing and other "canned" software packages will be contracted through local institutions such as INCAE. Because of expected personnel rotation in the MED, these courses will be contracted throughout the first five years of the Project, although they are concentrated in the first year.

-- 10 person-course participants will be trained in specialized database design techniques at a local institution These participants will be from the Informática Directorate.

-- A total of 11 observation trips to other Central American countries (Guatemala, El Salvador and Costa Rica) where similar educational MIS development efforts are taking place.

(c) Commodities

The Project will provide computers, printers, and related hardware to establish the MIS and to assist MED personnel at the central and the municipal level the efficient use of the MIS. The commodity list is provided in the Annex Information Support Attachment A. The employees at these sites will receive extensive training and technical support in order to link them with the system.

To conclude, under the Institutional Strengthening Component, the Project will one advisor in administration for up to 72 person-months and approximately 77 person-months of short-term assistance, training and commodities as discussed above. Annex 1

(Table IV-1) summarizes the major MED institutional problems, the actions that the Project will support to address those problems and the related technical assistance inputs. Please note that the TA listed in that summary does not necessarily add to the total TA under the component as some experts may be involved in the solution of more than one of the listed problems. Adjustments to the planned inputs and the corresponding budget will be made as required based on the yearly workplans to be prepared by the technical assistance contractor and MED counterparts.

2. *Teacher Training Component*

A. Introduction

The activities to be carried out under this component are based on the findings of the analysis summarized in Part VII of this paper. That analysis examines the context of the MED and the problems concerning teacher training and accreditation. Briefly, these problems which affect the quality and efficiency of primary education, are: a) The MED has 8,400 unaccredited primary teachers and the new Teaching Career Law mandates that training be given to them leading toward certification; b) normal schools are costly, their training is lengthy and inappropriate, and they are unlikely to change their curriculum unless assisted; c) The MED does not have a functioning in-service training program to raise the quality of unaccredited teachers nor to provide state-of-the-art training to accredited teachers. The MED teacher accreditation process will continue to graduate between 1,200 and 1,600 certified teachers per year.

Current data and information indicates that Nicaragua has a functioning accreditation program. Inadequate teacher training, as well as inadequate instructional materials seem to be at the core of the poor quality of the education problem. Regardless of whether a teacher is certified or not, children continue to receive poor quality instruction at the primary level and the GON does not currently possess the qualified human, adequate financial, and appropriate instructional material resources required to raise the quality of education. Thus, simultaneous improvements in teacher's capability and instructional materials are needed. Materials must be designed and classroom-tested to insure that the average teacher can use them effectively.

The Project will provide MED staff, parents, and community leaders, the required training and transfer of technology to enhance the education of primary level public school students enrolled in Nicaragua's formal education program. By training teachers and providing adequate materials, the Project will contribute to provide to Nicaraguan children a quality education

and related formal school experience to prepare them better to assume their responsibilities in their society. That is, their enhanced education is expected to help them to be better informed and more productive citizens who contribute to the social, economic, and democratic development of Nicaragua.

Specifically, to improve the quality of instruction at the primary level, the Teacher Training Component will: a) develop a Basic Education Guide; b) provide in-service and pre-service teacher training in appropriate primary education methodologies and use of existing instructional materials; c) strengthen existing teacher training delivery mechanisms such as normal schools; d) create an in-service teacher training system to work with accredited and unaccredited teachers; e) develop demonstration and laboratory schools and teacher training centers.

As an initial step during the early Project implementation stages, project-financed short-term experts will produce a training guide entitled "Basic Education for GON Decision Makers". The Guide will be used to set the foundation for subsequent activities under this component. It will be used to train key decision makers, a select group of teachers, normal school professors, school administrators, parents, and community members for mobilizing community resources of the public and private sectors, as well as other donors in addressing Nicaragua's primary education issues and problems in a constructive and participatory manner.

B. Detailed Component Description

In February 1990, A.I.D.'s S&T/Ed Bureau convened a workshop to analyze important experiences in improving basic education. The resulting monograph entitled "Lessons Learned in Basic Education in the Developing World" reports that effective and successful teacher training can be accomplished through a workshop setting emphasizing hands-on experiences and transfer of practical skills for classroom use, rather than through formal lectures. Additionally, it reveals that in-service distance education can be more cost effective than pre-service or traditional in-service approaches.

The design of this component considers these lessons. Uncertified teachers will be trained by itinerant Normal School professors, a select cadre of private primary school teachers, and other qualified staff. In-service training will be organized and structured to provide teachers with the practical skills and teaching materials for addressing the needs of children.

Considering that the Normal Schools accredit teachers, the MED will actively involve representatives of these schools in the decision making process which will establish innovative

requirements for teacher certification.

Materials utilized for course work will provide easy-to-follow instructions and activities which equip teachers with content and skills which can be utilized immediately with children. The approach will be modeling and practicing classroom activities rather than lecture and discussion. It is anticipated that the A.I.D.-sponsored RTAC II program will be a source of valuable books for the mini-libraries to be established at the 12 Normal Schools and at the Municipal Delegation levels. The in-service training program and Normal Schools will also receive sets of books currently being utilized in primary schools and will benefit from auxiliary materials which result from the activities under Component 3 - Curriculum Development and Instructional Materials.

To reinforce training and transfer of innovative teaching technology, two approaches are planned: a) the establishment of 40 demonstration schools near training centers at the municipal level; and b) the establishment of laboratory schools corresponding to each of the 12 Normal Schools, each of which will be equipped with master teachers, and appropriate materials.

The laboratory schools will be utilized to test first-drafts of student materials and teacher guides to ascertain their appropriateness for the designated grade-level, as well as the clarity and practicability of the instructions to the teacher. This will give the materials writers the opportunity to personally try to teach the activity and to observe master teachers trying to follow the written instructions. The feedback from the laboratory school testing will be used to enable writers to decide to either refine the nature of the activity, clarify the instructions, field-test the activity in its prototype form, or eliminate the activity altogether. While the testing in the laboratory schools will not substitute for field-testing in average classrooms, it will give the writers valuable feedback and help to eliminate gross inadequacies in materials design.

Micro-teaching techniques will enhance the pre-service program and future certified teachers will eventually enter the profession with the required skills to contribute to the quality and efficiency of education. Each normal school will be provided audiovisual equipment for micro-teaching purposes, including video equipment and related accessories which will help improve the pre-service training program over the life-of-the-project.

The sustainability of the training centers is viable since municipal level demonstration schools and Normal School laboratory schools will be selected from established/operational public and private sector institutions whose continuation does not rely on Project funding.

Recurrent costs related to the innovative teacher certification program will be minimal since initial costs of developing and providing training modules, mini-libraries and materials will be absorbed by the Project. By the PACD, it is anticipated that the majority, if not all teachers with jobs at the primary level, will have graduated.

In addition to the above, the Project will sponsor a Master Teachers Program. In essence, teachers will be recruited from among those teachers who are generally recognized as among the best Nicaraguan primary school teachers. Many of these individuals will come from the private school sector as these teachers are generally certified and are seen as among the most experienced Nicaraguan teachers. Master teachers will be trained by the curriculum development unit.

Approximately, 120 teachers will be recruited, mostly from Managua, Leon, and Matagalpa, where the bulk of quality private schools are located. Training will take place in classrooms during the final quarter of 1995 and again in the final quarter of 1996, when the instructional materials in Spanish and mathematics, respectively would have been tested and begun to be distributed.

During the first quarter of 1996 and 1997, the master teachers will provide in-service training to teachers about to employ the new materials. Groups of four master teachers will travel to each of the 148 municipios over a two-week period. Each master teacher will conduct training sessions for approximately 10 teachers and supervisors each day over a week and then will move to another municipio to provide training to a different group of teachers in the second week. Workshops will be held in classrooms with teachers actually using the new materials to simulate their own classroom environments. As with the master teacher preparation, hands-on applications related to helping all students reach the desired grade level competencies that have proved effective in the piloting of the materials will be used.

Teacher retention strategies are being structured by the MED to address teacher salary issues and Project-funded technical assistance will help the MED in conceiving and implementing feasible strategies. Even if teachers receive a raise in pay, their monthly income would still be less than half of that which is required to sustain the average household. Yet, the teaching profession is still a viable option for Nicaraguan citizens since a teacher earns the equivalent of approximately $845 per year, which is over twice as much as the country's per capita income of under $400, and alternative employment opportunities are still very limited. This, however, does not minimize the importance of considering other incentives (detailed below) which will motivate teachers and contribute to the retention effort.

By the PACD, nearly all non-certified teachers will have been graduated and they will have been implementing child-centered action plans utilizing the Basic Education Guide, as well as other available instructional materials generated and distributed during the LOP. Over 9,000 certified teachers will have also received child-centered training and transfer of related technology. Approximately 3,000 newly graduated teachers will be placed through active collaboration between Normal School personnel and Municipal Delegations.

It is expected also that by the PACD a cadre of parents and community leaders will be contributing to the quality of basic education and children will be attending primary schools where learning is fun and academically rewarding. Teachers will be expected to have gained the necessary knowledge and skills for planning, implementing, and evaluating qualitative interventions with active learning processes.

To carry out the above activities under the Teacher Training component, the Project will provide technical assistance, training and commodities as follows:

a). <u>Technical Assistance</u>

Most of the efforts under this Component will be in the form of technical assistance. The Project will provide a long-term Teacher Training Advisor for approximately five years and approximately 41 person-months of short-term experts, mainly for the seminars and training workshops. In addition to assisting MED counterpart personnel involved in teacher training activities, this advisor will coordinate the provision of short-term technical assistance for the various activities to be carried out under this component. Annex 1 (Table IV-2) summarizes the main problems to be addressed, the technical assistance needs and the main effects of such assistance.

At the earliest possible date following authorization of the Project, a team of seven short-term technicians will work with MED counterparts to develop the Basic Education Guide which will focus on child-centered interventions which contribute to the improvement of primary education. It is expected that this will be a practical guide that can be read, understood and put into practice by the average classroom teacher. It will contain concise, clear statements of basic learning principles that apply to lower primary education, representing the current state of the art. For each of the learning principles, the guide will provide a brief explanation and examples of how the principle is applied to the development of instructional materials, to teacher training and to classroom management. The guide will contain clear instructions for carrying out child-centered learning activities that embody the basic principles to teach language arts, math, and other skills and content areas normally taught in

grades one through four. The guide will also provide guidance on bilingual education and adapting instruction for cultural and linguistic minorities; suggestions and directions for using teacher and child-made learning materials related to their environment; methods and sample assessment instruments to aid the teacher in diagnosing learner needs, measuring achievement, and recording and reporting progress; suggestions for involving parents and community leaders in the education of the children; self-evaluation forms and action plan forms for teachers, school administrators, parents and others.

In developing the guide, the team of consultants and MED counterparts will first review current research on basic education, bilingual education, and the status of basic education in Nicaragua as well as examine materials, including videos, that demonstrate tested methodologies in child-centered education. Once an outline of basic principles has been developed, the team will work with selected teachers to develop clear instructions for tested classroom activities that exemplify the application of the principles. Before the guide is printed for mass distribution to the 20,000 teachers in the system, the draft will be field-tested by classroom teachers using standard formative evaluation procedures. The process of developing the guide will provide GON decision makers and teacher trainers with a firm theoretical background in basic education. However, the guide itself is intended to aid classroom teachers to apply the appropriate principles and therefore must avoid theoretical discussion and take the form of clear instructions for practical classroom management of learning.

Initially, 20,000 copies will be produced and distributed to all primary school teachers, PTAs, 40 Teacher Professionalization Centers, 12 Normal Schools, 148 Municipal Delegations, NGOs, other donors, and key MED personnel. Additionally, copies will be placed in the 12 Normal School libraries and the 40 Teacher Professionalization Centers. This will be the initial intervention of nationwide coverage to be executed in early 1993.

The Institutional Contractor will provide a U.S. or third country long-term (60 p/m) Teacher Training Advisor who will work, in concert with short-term experts as required, with MED counterparts at the Central MED level, Normal Schools, the 40 Teacher Professionalization Centers, with Municipal Delegations.

A short-term procurement specialist ((5 person months shown under Curriculum Development Component) will be contracted to assist, as required, in the procurement of equipment and materials.

The Project will also complementary U.S. and third country short-term technical assistance with expertise and experience in lessons learned in basic education, child development, active

student participation, classroom management, learning centers, small group instruction, peer teaching, practical low-cost materials development, whole language acquisition principles and activities, parent and community involvement, school maintenance, and qualitative evaluation. The timing and specific duration of this assistance will be determined by the U.S. TA firm, the MED, and the USAID as part of the yearly workplan preparation process.

B. Training

Most of the required training will be provided in-country by MED personnel and external specialists. Training will focus on the use of the materials in classroom settings and will deal with encouraging student problem-solving in relation to desired student competencies. Issues such as scheduling, classroom and materials management in multi-graded classrooms, and dealing with students of different characteristics will also be dealt with through simulations of the experiences in the pilot schools, role playing, and addressing problems from the teachers' own experience.

A long-term advisor and short-term experts as necessary will help MED counterpart specialists in training a cadre of 120 teachers from the private sector primary schools of Nicaragua. These teachers will assist in short-term hands-on nationwide training in the innovative utilization of reformed curriculum guides for language arts (thematic design) and math.

Local and international technical experts will reach approximately 12,000 primary school teachers in grades 1-4 during the LOP with varying amounts of direct in-service training. Workshops will vary from five to ten-day duration, depending on content. Additionally, nearly 2,800 Central MED decision makers, Normal School professors, practice teaching teachers, demonstration school teachers, methodologists, supervisors, parents, and community leaders will receive varying degrees of training related to improvement of the quality of basic education.

Training in-country will be complemented by Nicaraguan participation in international fora where they can further enhance their capability through the exchange of ideas and experiences on basic education. Participants could include: legislators, national supervisors, teachers, central level managers, Normal School professors, Practice teaching school laboratory classroom teachers, Demonstration Classroom teachers, methodologists, parents, and community leaders of parent/community associations (10 GON representatives per forum).

Participation in the training programs is an important assumption of this Component. Often, the attention shown and the knowledge imparted in training itself serve as sufficient incentive to participate in course. If not, material and other reinforcers, such as recognition, are needed to help support participation. This component will provide incentives for teacher participation in the accreditation program.

Examples of incentives for teachers enrolled in the accreditation program are as follows: teacher certificate for 7,200 professionalization program graduates; Teacher-of-the-Year Award; Normal School Teacher-of-the-year Award; Methodologist-of-the-year-Award; National Supervisor-of-the-year Award; Normal School Administrator -of-the- year Award; Central MED Administrator of-the-year Award; Parent of-the-year Award; Community Leader of-the-year Award; Certified Teacher of-the-year Award; Demonstration School Teacher of-the-year Award; Practice Teaching Classroom Teacher of-the-year Award; and Basic Education Improvement School of-the-year Award.

The Project will provide technical assistance to work with local counterparts in developing teaching materials to be used by the trained teachers as a measure to improve the quality of primary education, as discussed under the Curriculum Development and Instructional Materials component. The preparation of teachers in the use of the new instructional materials will be a collaborative effort between the Curriculum Development Unit and the Teacher Training Unit for primary education. Both the lack of experience of the methodologists at the regional and municipal levels and the general ineffectiveness of the "multiplier" approach to in-service training requires that different strategies in teacher preparation be used in training teachers to use the new materials. Rather than training supervisors in workshops that carry out training centers divorced from the classroom and then having the supervisors pass on the training to teachers in similar environments, the "Master Teacher" approach to training, previously described, will be used.

c). <u>Commodities</u>

The above technical assistance and training activities will be complemented with the procurement of approximately 1,000 bibliographical references for each of the 12 Normal School libraries and for each of the 40 libraries at the Teacher Professionalization Centers.

In sum, the Project will finance the services of a long-term Teacher Training Advisor for approximately five years, approximately 35 person-months of short-term assistance (mostly to carry out training workshops and studies), and commodities (approx> $1.1 million) including seminar/workshop supplies, the Basic Education Guide, demonstration school supplies, etc.

Adjustments to the planned inputs and the corresponding budget will be made as required based on the yearly workplans to be prepared by the technical assistance contractor and MED counterparts.

3. *Curriculum Development and Instructional Materials Component*

A. Introduction

This component is designed to address the problems related to the lack of or poor curriculum and instructional materials which affect the quality and efficiency of Nicaragua's primary education system. These problems are summarized in the technical analysis, Annex 1, Curriculum and Instructional Materials. Briefly, the findings in this analysis are: a) lack of guidance on grade-level competencies being presented in textbooks; b) lack of teaching guides for new textbooks; c) lack of curricular flexibility; and d) lack of quality measures for instructional impact.

The BASE Project will contribute to the potential productivity of the Nicaraguan human resource base by increasing literacy, numeracy, and social skills among the Nicaraguan primary school population. One important step in this direction is to improve the quality and equity of instructional delivery. This will be done by creating learning situations which offer children an opportunity to: (a) make normal academic progress through primary school, and (b) use their learning experiences in their daily lives. These are planned results that will show improvements in internal and external efficiency of the system.

This Component will reach these results by: a) increasing the percentage of Nicaraguan primary children who meet grade level expectations and advance in grade each year, especially as regards the first four grades of the primary education system; b) improving the usefulness and relevance of current and future Nicaraguan primary school instructional materials; c) creating a permanent capacity within the MED to design and produce curriculum and instructional materials; and d) developing, in concert with other project components, the capacity within the MED for procurement, distribution, monitoring of end product use and retrieval/reissue of low-cost instructional materials for primary grades.

The development of the capacity to design, produce or procure, distribute, and monitor the use of instructional materials that are adequate to meet Nicaragua's primary education goals cannot be a rapid process. It will require a series of systematic interrelated activities that will take advantage of existing resources while developing both new capabilities and materials.

Thus, three major activities are planned, which can proceed in harmony and simultaneously: a) maximization of the utility of current texts through the creation of teacher guides; b) development and testing of new materials for the first four grades; and c) development of mechanisms to ensure adequate cost recovery on instruction materials. These major activities will be complemented by ancillary activities designed to improve instructional delivery. They include: (a) development of student assessment procedures; (b) sensitizing teachers to competencies to be achieved in each grade-level; and (c) provision of classroom resources.

This component details a plan for creating a capacity within the MED's curriculum department to develop appropriate modular instructional materials. These will have the flexibility to be used effectively in a variety of current and future instructional configurations (e.g. unitary first and second grade, multi-grade classrooms) and will be employed to improve the internal efficiency of the Nicaraguan primary education system.

These materials will focus directly on educational quality as defined through student grade level competencies identified by the MED. The targeting of competencies needed for academic advancement will allow the development of a coherent curriculum addressing the serious problem of repetition, which is estimated as high as 50 percent in the first grade. Improved curriculum development capacity will also allow the development of appropriate modules that reflect local community and cultural needs in support of the ongoing municipalization effort of the Ministry of Education.

As the major problems with repetition in the Nicaraguan primary education system occur in the early years of primary schooling, the curriculum development and instructional materials design component of the project will focus on the first four years of primary education. Upper grades will, however, also benefit through improved teacher guides that tie the use of existing texts closely to Ministry instructional objectives and through the replacement of current texts lost through natural attrition.

Because of the GON's precarious financial situation and the MED's limited budget, the Project will provide significant financial support for the purchase and/or development and production of textbooks and related instructional materials, as discussed herein and subsequent Sections 3.B. a and b.

This support to the MED is critical during this crucial period. First, over 92 percent of its budget is for fixed costs. Second, the MED has embarked upon both a prioritization of resources to support primary education and policy reforms which include decentralization, community participation, and cost

containment measures such as reduction of personnel, local funding, and private sector involvement in the education sector. Without support for curriculum development and materials production (as well as technical assistance in administration and policy reform), the MED will be unable to meet basic requirements or implement long range cohesive policies in the sector.

Finally, the Project does not address a critical need which also confronts the MED and requires resources - the replacement of textbooks for the nearly 200,000 secondary school students. The planned assistance discussed below will meet immediate needs in the critical primary education sector while allowing the MED to focus on pressing secondary school needs.

During the first two years of the project, the existing primary textbooks will be restocked as required while the new innovations in curriculum materials are designed, produced and tested. Although the use of existing primary education textbooks is not the best response to the Nicaraguan situation, their use is an adequate interim response to the problem of lack of instructional materials until the instructional materials described under the Detailed Component Description section are developed, produced and tested. To complement this initial response, the project will provide funding to produce teaching guides for such books thereby enhancing their usefulness.

Estimates of primary textbook requirements are based on the estimated number of primary students of approximately 723,000, a mean number of textbooks per student of 4.56, an average cost of $1.00 per textbook, and an average cost for workbooks of $1.65 per student year. Assuming 100 percent replacement, funding needs would total approximately $4.5 million, including $3.3 million for textbooks and $1.2 million for workbooks. However, based on MED experience, it is estimated that only $2.7 million will be required to replace books. Of this amount, the MED will provide about $1.0 million from the sale of previously provided books, leaving an unfinanced gap of approximately $1.7 million in 1992. The project will cover this gap and furnish complementary materials, e.g. teachers guides at a cost of about $400,000.

For 1993, total primary textbook costs will be somewhat higher depending upon inflation and increased enrollment. The Project provides approximately $1.4 million for textbooks in 1993. It is expected that the sale of books and other MED resources will cover any additional financing. However, it is expected that the actual requirements will need to be revised based on the experience of the 1992 school year.

In sum, the Project budget provides approximately $3.5 million for textbooks/instructional materials during the first two years. The balance of the budget item (about $6.1 million) will be used to produce, and or purchase instructional materials (including

textbooks) to be developed as a result of the activities described subsequently under the Section "Development of Instructional Materials". It is anticipated that the $6.1 planned for instructional materials after the second year will fall short of the actual requirements. Any shortfall is expected by the MED from its own resources or from planned World Bank assistance to Nicaragua in the education sector.

At a policy level, the MED has already begun a plan to sell textbooks at considerable political risk. This bold policy step led to the generations of about $1 million. In addition, the MED is considering a plan to turn over the distribution and sale of books to bookstores. This will vastly reduce the investment of scarce MED resources. It will also foster the growth of the private sector in this area and begin the process of involving parents in buying the required textbooks.

The Project will support such initiatives and related initiatives discussed under Section 3.C. Development of Cost and Instructional Materials Recovery Mechanisms). Examples of actions to reduce costs in this area include:

-- the provision of individual textbooks for all subjects will be investigated, together with the concept that with proper training, teachers can teach just as effectively with a greater ratio of students to books.

-- The organization of the classroom into groups and the use of centers of learning for particular subjects e.g. a math center where all math classes are taught as a way to maximize savings without reducing the quality of education provided.

-- Materials to replace and/or supplement textbook usage will be tested and produced. These include learning kits, a quarterly newsletter for teachers and newsprint publications in a "Weekly Reader" format.

-- Ways to remove the MED from furnishing books to students, except for the poor, will be examined. If found feasible, the MED would become a clearing house for all materials and textbooks which meet the curriculum objectives for skills and knowledge attainment by subject and grade. The MED would then approve books to be sold which meet the criteria established. Private schools are already exempt from the requirement of using the current textbooks and are free to choose other textbooks which meet the MED criteria.

B. Detailed Component Description

A discussion of the major activities follows.

a. Maximization of the utility of current texts through the creation of new teacher guides.

Step a.1: Specification of General Grade-level Competencies

To ensure that instructional delivery is maximized, two complementary steps will be undertaken in the development of competencies and grade expectations. The first will identify general competencies that can be used to revise teacher guides for existing textbooks in order to maximize their utility. It is a necessary antecedent to more detailed analysis needed for the creation of new instructional materials. This step starts from the broad goals as given in the preliminary national plan and the MED's proposed curriculum policy paper for 1992-1996. It uses principles and broad goals, rather than specific measurable objectives as the basis for making the existing curriculum more coherent and establishing the direction for revising and supplementing existing materials and guides. The second step is the development of teacher guides for existing textbooks.

The first step has already been started through the efforts of the curriculum development staff in analyzing existing textbooks to determine the degree of consistency in orientations to learning and to the newer education goals of the Ministry. Preliminary studies of the strengths and weaknesses of the different textbook series have been undertaken. However, little analytical work has been undertaken for other aspects of the curriculum, such as teacher guides, evaluation and staff development.

New frameworks outlining the objectives, content and suggested time frames for language, history, science, civics and moral education, and mathematics for each grade level have been developed by the Ministry. These frameworks can be very useful in guiding the revision of guides for existing texts and in the development of future materials. The frameworks do however, tend to reflect a traditional approach to curriculum,(e.g., the learning of isolated content skills and facts). Thus, a systematic effort to encourage student-applied problem solving in adapting the guides to the goals already established must be undertaken.

The Project will assist with the development of Skills and Content Matrices for each grade level, showing relationships between specified thinking and problem-solving skills, and the content skills and knowledge objectives that have already been developed by the Ministry. The grade-level matrix chart will be

accompanied by instructions for sample adtivities demonstrating how to help children develop and practice thinking and problem-solving skills while mastering contents.

This effort would include establishing a Curriculum Development Committee made up of the Director of the Curriculum Development Unit and representatives from the Office of the Minister, the Teacher Training Unit and the Evaluation Unit as well as subject matter specialists from the Curriculum Development Unit. Their function will be to adapt the curriculum to the goals and principles already established rather than to offer new goals, objectives, and organizational frameworks. The committee will focus on comparing existing textbooks and other instructional materials with the given grade level frameworks such as the principles stated in the MED guidelines (lineamientos) and the planning guide. The end products will be recommendations for revising and supplementing existing materials and specifications for new teaching guides.

Step a.2: Development of New Teacher Guides for Existing Texts

Based on these specifications, the staff of the Curriculum Development Unit will develop the new guides. The guides will be very intuitive in that they will include a schedule combined with a variety of exercises that promote student projects with the books at each grade level throughout the year. The guides will illustrate how to allow students to design and carry out their own projects in the surrounding community, and how to promote peer teaching, small group work, and teamwork. Ideally, this activity will take place during the 1992 school year. It is, therefore, likely to be a bridging technical assistance activity which takes place prior to the contracting of an institutional technical assistance provider. It will require project funds to contract bridging technical assistance from a specialist in curriculum design for a four-month period May through August, 1992. Plans are to request this assistance under the centrally-funded EHRTS project.

During the first two months of assistance the general competencies and grade level expectations will be developed. The following two months will be devoted to the development of prototype guides and reviewing such prototype materials with teachers and supervisors who are representative of those who will use the guides.

With the arrival of the institutional technical assistance contractor, the long-term curriculum specialist will assist the curriculum development unit to refine and produce the new curriculum guides developed under the bridging activity. The first step in the production of the guides will be the organization of word-processing and desktop publishing training.

Approximately 25 individuals, including professional and support staff will be trained on software systems consistent with current MED software (Wordperfect and Pagemaker). The training in word-processing applications will be supplied by one of the several Nicaraguan firms specializing in such training and will occur over a two-month period beginning in September 1992.

At the same time, the contractor will procure five computers, two color printers, two scanners, and duplication and binding equipment. Upon equipment arrival and installation (approximately November 1992), the same curriculum development personnel will receive an intensive three-week course in desktop publishing. This course will be provided by a short-term specialist contracted by the institutional contractor. This training will be followed up by hands-on practical experience in the production of the curriculum guides which will be coordinated by the long-term Curriculum and Instruction Specialist. These two training exercises will be the first steps in establishing a capability within the Ministry to develop camera-ready instructional materials and to procure cost-effective materials production services.

The development of the new guides will take approximately two months as the prototypes are adapted through the desktop publishing exercise. In order to have the guides in place at the start of the 1993 school year, they will be reproduced on off-set with Ministry production facilities, put into loose-leaf binders, and distributed to the schools with the distribution of replacement texts in February and March of 1993.

b. Development of New Instructional Materials

Step b.1: Detailed Specification of Detailed Grade-level Competencies

Following the distribution of the guides, the curriculum development team will focus on detailing competencies as the basis for the development of a competency-based curriculum in each subject matter area at each grade level. Competencies will include both end of year competencies and prerequisite competencies. A curriculum mastery plan including scope and sequence charts showing how key concepts and processes are related to the subject area competencies, how they are to be developed through grades 1-6, and how the subject matter is to be integrated will be developed as a first step. The second step will be a curriculum framework for each area that includes suggestions as to what the curriculum in the field will look like at each grade level.

The framework will illustrate how objectives can be approached from different points of view, the kinds of learning and teaching methods required, any proposed adaption of existing materials,

and the use of local resources, as well as provide a content matrix showing the scope and sequence of the subject area curriculum over a six-year period. The third step will be the specification of a pilot testing and formative evaluation plan for each subject.

This detailed specification will build on the general specification work done previously and thus can be completed in six months (April-September 1993). The overall direction of the effort will be undertaken by the same MED technical team charged with developing the initial general competencies. Additional subject matter teams will be formed from MED subject specialists augmented by persons from other institutions, such as private and public primary schools, including representatives from the zones with linguistic minority populations, and the normal schools to develop specific subject matter areas.

Primary technical assistance for all teams will be provided by the long-term curriculum design specialist, who will also serve as the subject matter specialist for Spanish language arts. This individual will be supported by international subject matter short-term specialists in the areas of mathematics, natural science, social science, civics and second language acquisition, who will serve for one month each.

Spanish and other Nicaraguan first languages will be the first subject matter areas addressed because of the importance of reading and writing to the learning of other subject matter and the possibility of language arts, through whole language approaches and thematic teaching and learning, to incorporate other subject matter. Thus, the long-term specialist must be an expert in child development and principles of lower primary education methods, content and materials, and knowledgeable in competency-based instruction, integrative approaches to learning which involves using all of the child's sensory modes to enhance learning, alternative approaches for the integration of subject matter and assessment of student performance.

With respect to dealing with culture and gender equity, the Lineamientos of the Ministry make clear a commitment to the Universal Declaration of Human Rights that is opposed to culture and gender discrimination. Consistent with this guidance, all work will be checked for possible culture and gender bias, such as reference to objects and ideas that are likely to be more familiar to males than females, unusual representation of men and women as actors or representation of members of each gender only in stereotyped roles.

The subject matter specialists will experienced lower primary educators who are be exponents of current active learning theory and criterion referenced assessment aimed at moving beyond the isolation of subject matter to focus on performance related to

real life tasks. They will be practitioners in school districts or universities who have practical experience in Latin American settings. They will also have familiarity with gender and other equity issues as such issues pertain to their particular subject matter area.

Included in the team of subject specialists will be a bilingual education specialist who will work with MED counterparts to clarify and enunciate MED policy and guidelines for linguistic and cultural minority groups, and to make recommendations concerning the development of instructional materials, taking into account the MED policy on bilingual education. It is essential that this expertise be brought in at the beginning of the planning process, since it will be difficult, if not impossible, to later adapt curriculum and instructional materials that have been designed for monolingual Spanish speaking children so that they will be appropriate for children who enter formal schooling as speakers of another language.

All specialists will work with the appropriate MED technical and subject matter teams as counterparts. They will contribute to all phases of the work: competency setting, organization of content and process, designing of learning opportunities, and evaluation.

The technical teams will work in accordance with the new educational policies from the Ministry. Each phase of their work will be reviewed by the Curriculum Development Committee established to develop general grade level expectations for revising the existing textbook guides. When appropriate, competency and assessment plans will also be reviewed by the Director of General Education.

Step b.2: Development and Testing of Language Arts Instructional Materials for Grades 1-4.

With the completion of the detailed competencies and curriculum definition carried out during the 1993 school year, the long-term curriculum and instruction specialist will coordinate, with the Director of the Curriculum Development Unit and the Curriculum Review Committee, the activities for developing language arts instructional materials. As an initial step, the specialist will develop workshops to train the language arts materials development team in state-of-the-art approaches to language learning. This will include interactive child-centered approaches which encourage independent thinking by taking into account the learner's situation and cognitive abilities in developing learning activities and whole language theory which focuses on the interrelatedness of reading, writing, speaking and listening as related to the natural processes of using language to enhance learning both in and out of school. Special emphasis

will be in the use of effective learner activities that are not dependent on a textbook, or on purchased books, per se.

At this time the project will provide the services of an instructional materials specialist to develop the curriculum team's awareness of the factors that enter into costs of instructional materials, to make recommendations for cost-containment, and to suggest alternative strategies for providing children and teachers with needed learning resources. It will be necessary to have this expert input at the beginning of the instructional materials development cycle to avoid having to make costly adjustments later.

State-of-the-art materials in Spanish will be obtained by the specialist and used for demonstration purposes in the workshops. They will be juxtaposed with the existing language arts materials in relation to the Ministry's desired grade-level competencies. Integrated language arts strategies and thematic teaching approaches will be presented in the workshops and incorporated into the materials design.

Based on the results of the workshops, which will take place in the last three months of 1993, pilot schools will be selected for testing the materials to be developed during the 1994 school year. Pilot schools will be representative of the varying conditions found in Nicaraguan primary schools (e.g. urban, rural, incomplete, multi-grade, with preschool education). At least two schools of each type determined by the Curriculum Review Committee to be relevant for study will be included in the formative evaluation design. However, a maximum of 10 to 15 schools will be selected.

In January of 1994, supervisors and pilot-school teachers will be trained in thematic teaching approaches as first grade modular units are being developed. Beginning in November, 1993, writers will begin development of language arts materials. Working under a Language Arts Coordinator, grade-level materials writers will develop the first modules for each grade level. Each module will include instructions for assessing individual learner achievement of the desired competencies for that module. Teachers in selected pilot schools will begin testing the materials in their classrooms when school opens in March, 1994.

The formative evaluation team will have developed a plan for collecting and analyzing data, designed feedback forms for teachers and observation forms for formative research team and others, such as the materials writers, who visit pilot classrooms. As a pilot-version of each module is printed, the formative research evaluators will distribute them to the pilot schools. Developing and adhering to a practical schedule for writing, reproduction and distribution will be essential to insure that classroom teachers receive the packets of materials

in a timely fashion so that there is no interruption in the instructional process and in the flow of feedback to the materials writers. Please see Annex 3 (implementation schedule) for a detailed descrition of an illustrative flow of materials development, use, testing, and revision process.

A short-term formative evaluation consultant who is a specialist in qualitative evaluation methodology and classroom research will be contracted for a total of nine months during 1994. This individual will design and set up the formative evaluation system, training field staff from the evaluation uni and additional field staff hired by the contractor to collect systematic observational data on the teachers' ease of use of the materials in the pilot classrooms and their effects on children with different characteristics (e.g. sex, age). This information will be used by the curriculum development team for language arts to revise the thematic modular units for each grade level.

At least two four wheel drive vehicles will be necessary to carry out the formative evaluation field work. As these vehicles will be in the field much of the school year, a third vehicle will be needed to meet the day-to-day needs of the curriculum development team. All three vehicles will be financed through the project.

A short-term specialist in bilingual education will be contracted once most of the units at each grade level have been revised. This individual will travel to the Atlantic Coast and work with local education personnel in the adaptation of the materials to the needs of Nicaragua's linguistic minority populations. This consultancy will be of four months duration.

While the schedule for the language arts instructional materials development is feasible given the work in curriculum definition and specification to be carried out in the previous year, it does not allow for possible slippage owing to labor disputes, natural disaster and the like. Thus, it is probable that the development effort will extend into the 1995 school year and overlap with the development of the mathematics modules. This will not create a problem as the teams will be made up largely of different personnel representing the specific content areas.

Also in 1995, personnel from the curriculum development unit must be trained in developing specifications for procuring international publishing bids for the materials, as discussed below. The Curriculum Development Team will also provide input to training the Ministry's corps of teachers to use the new materials effectively during this year. As discussed in the description of the project component dealing with training, both developers and teachers from the pilot school will give hands-on training to a group of master teachers who will subsequently

train teachers through simulation of practical classroom applications of the materials. Given these responsibilities and their relationship to mass production of the materials, the language arts instructional materials will realistically be available for the 1996 school year.

Step b.3: Development and Testing of Mathematics and Civics Materials for Grades 1-4

Preparation of the mathematics materials will follow a sequence similar to that employed with language arts. A short-term content specialist will be contracted to develop workshops on state-of-the-art approaches to mathematics instruction. This individual will provide training to the Mathematics Curriculum Development Team on the creation of thematic modules for the first four grades and assist in the development of the first grade materials. The consultant will return during the development and testing of the fourth grade materials to help with material revisions. Six months in two three-month consultancies will be spent in Nicaragua.

Pilot schools will again be selected and formative evaluation carried out for the mathematics materials at each grade level. The mathematics materials will be piloted in conjunction with the a distribution of the final prototype versions of the language arts materials to evaluate teachers' success with multiple subject matter modules. The formative evaluation specialist will return to Nicaragua during this year to incorporate any new evaluation methods that are needed into the formative evaluation design. This consultancy will be of a two-month duration.

Given the experience of the Curriculum Development Unit with language arts in the previous year, it is likely that the development of the mathematics curriculum can be completed in the 1995 school year. Procurement of publishing services, preparation of training for teachers in the use of the mathematics materials, and the development of the civics instructional materials will delay distribution until 1997.

Civics instructional materials will be developed through the same procedures. Again, a content area specialist will be contracted for short-term assignments totaling six months in 1996. the formative evaluation specialist will return for one month during the year to ensure an appropriate evaluation design. In 1997, social science materials will be developed in the same way. It is likely that by this time the Nicaraguan curriculum teams and content specialists will be able to develop and test instructional modules with assistance only from the long-term curriculum specialist, thus no short-term consultants will be needed in the last two years of the project.

c. Development of Cost and Instructional Materials Recovery Mechanisms

The MED must develop mechanisms to finance the production of instructional materials over the long-run. This will come about in part through the intra-government and inter-sector financing strategies that can be negotiated as the management and policy formulation capabilities of the organization, discussed in other sections of this project paper, are strengthened. In addition, however, systems must be put in place that will maximize the utility of instructional materials over time and minimize production and distribution costs. Such systems will also provide information that will strengthen the Ministry's negotiating position in obtaining additional government financing out of the regular GON budget.

The MED has made a commitment to cost recovery and in the 1991 school year adopted a strategy of selling books in the first three grades with price established on a sliding scale based on need, and renting books in the upper grades. This strategy resulted in the recovery of an estimated $1 million. It is also estimated that 60 to 70 percent of the upper grade books have been recovered and approximately 20 percent of the books for the first three grades have been voluntarily returned. This represents a good start toward cost recovery considering the lack of a well developed plan to stimulate cost recovery.

At present, book return and storage as well as fee collection is done at the school level. Fees are then delivered to the municipal office where they are placed in a bank account and later transferred to the Ministry. There are, however, no systematic procedures for textbook maintenance and storage or data capture and control for restocking purposes. The information that is available on existing textbook stocks is outside direct MED control as it is maintained in a database developed by the RTAC textbook contractor.

There is presently a plan in place to use the $1 million in recovered costs, a surplus of about the same amount in the institutional contractor's budget, and a slightly lesser contribution from AID to fund the replacement of a package of basic texts for the 1992 school year. The new teacher guides to be developed by the Curriculum Unit will obviously be in relation to this package of materials.

To take full advantage of the new project-developed guides, a full complement of texts should be available in Nicaraguan classrooms. As textbooks are estimated by both the MED and the RTAC contractor to last three years, the project will support replacement costs to this basic package of texts over a three-year period (1993, 1994, and 1995) while new instructional materials are being developed and cost and materials recovery

standards are being set in place to ensure a 75 percent recuperation rate that is the norm in most countries. In subsequent years, the project will support the production of the new Spanish (and minority) language arts materials for the 1995 school year and mathematics instructional materials production in the 1997 school year. It will also support the 25 percent replacement of the remaining basic text package each year as needed.

The Ministry is presently weighing several strategies to improve its textbook replacement capabilities. The most promising of these is a "Book Bank" banco de libros strategy where children purchase books upon entrance into school but then are given each subsequent year's instructional materials on return of those received in the previous year. Other strategies suggested include encouraging local businesses to "adopt a school" by contributing to some of the costs of instructional materials for a particular school or negotiating with the government to provide a tax rebate to businesses contributing to the purchase of instructional materials for primary schools.

Each of these strategies is positive in that they support the Ministry's objectives for local participation in education. Their feasibility in relation to local commitment and capacity to manage such programs as well as Ministry capacity for procurement, distribution and tracking of replacement instructional materials needs is, however, unknown.

Thus, a feasibility study will be conducted as a bridging activity during the 1992 school year prior to the contracting of an institutional contractor. This study will focus on the feasibility of cost recovery strategies and the capability of the Ministry for the management and control of commodities, especially instructional materials. Two specialists, one in alternative local school financing and one in commodities logistics, will be contracted for a period of three months each to carry out the study. Based on the results, the Ministry will develop a plan of action for reaching targeted objectives. Funding for this study is expected to be provided under the centrally-funded EHRTS project.

At this time, strategies for maximizing the use of the remaining textbooks as new instructional materials are developed will be determined. The majority of the remaining first through fourth grade texts might be transferred to the accelerated primary school program for out of school youth. In this accelerated setting the books could be used effectively as resources by students who are proceeding through the primary school program at their own pace. Sets of textbooks will also remain in primary school libraries as reference materials.

In order tc maximize the cost-effectiveness of the

instructional materials developed under the project, key members of the Curriculum Unit will be trained in alternatives for materials production. Six individuals will travel to the United States to participation in a specially designed course which will deal with the experience in publishing instructional materials in the developed and developing world. Topics will include paper costs and the advantages and disadvantages in using high quality paper as opposed to newsprint, different degrees of durability in binding and covers and the cost implications of different choices, costs of using colors as well as procedures for writing specifications for publishing bids.

The course will take place late in 1994, after the Curriculum Unit has developed the language arts materials. These materials will form part of the training. Not only will the curriculum unit personnel weigh options in terms of the reality of the Nicaraguan primary education system and recurrent cost implications but will also develop specifications for publishing bids for their own materials to be published for the 1996 school year.

In addition to the activities described under the above steps, the Project will sponsor other ancillary activities as follows:

(a). **Student Assessment**

The specification of competencies and curriculum development activities will include the creation of an assessment plan for providing information regarding the attainment of competencies. This plan can be translated into criterion referenced tests that are consistent with the overall curriculum. This is important because the present guidance in the Normativa del Sistema de Calificacion is precise in its procedures for averaging different examinations but vague in describing what the examinations are assessing and what the examination scores represent.

The lack of experience in test development and administration in the curriculum evaluation division together with the high development and recurrent costs of a national testing system make large-scale summative testing unfeasible under the project. Rather, the development of summative evaluation measures will complement the formative evaluation of the instructional materials which will be discussed below. Formative measures such as observation will be used to calibrate criterion referenced tests that will be developed in correspondence with each set of subject matter materials developed under the project.

The development of the instruments and procedures will require the assistance of an evaluation specialist to assist the evaluation division for a month each year during the life of the project. This assistance will include the fine-tuning of measures through comparison with the assessment instruments used

in the external evaluation of student performance to be carried out each year.

The external evaluation will focus on fourth grade as that is the grade where the results of the project will improve student performance and is the grade where there is general agreement that functional literacy is obtained. The representative sample selected for the policy study on the determinants of repetition will also serve as the sample for measuring student achievement. Initial testing will be carried out concurrently with the repetition study in the first year of the project to establish a baseline. Existing measures of language arts, mathematics, and social skills that are consistent with the general competencies developed in the first six months of the project will be selected and pilot-tested for appropriate discriminating properties. These tests will then be applied yearly to the fourth grade sample population at the end of the school year. Data will be analyzed by age, sex, gender, and other variables of interest to the MED in improving educational quality.

As early as possible in the project, a formative evaluation expert will be provided to develop the overall plan, working in collaboration with MED counterparts, which will involve establishing procedures for collecting, analyzing and responding to feedback from pilot-testing of assessment instruments, teacher guides, and learner materials under development, training being provided and methodologies being promulgated.

(b) Teachers to Grade-level Competencies

Given the lack of clear specification of grade level competencies and the tendency among teachers to use criteria other that competency in subject matter for failing children, it is vital that teachers are made aware of and understand the importance of the competency-based approach developed through the project. Emphasis on teaching and assessing subject matter competency will be built into the new teacher guides to be developed in the first phase of this activity. Reinforcement is, however, necessary and can be accomplished through a quarterly newsletter. The newsletter will focus on the activities of the curriculum development effort, and as the formative evaluation of materials and the policy studies are undertaken, will provide summary results and anecdotes of individual teacher and student experience using the new instructional materials which focus teachers on curriculum objectives.

The newsletter will also include schedules for gauging progress, "how-to" articles on learning activities related to the new guides and instructional materials, school, municipal and departmental educational events and experiences, and a teacher information exchange. The newsletter will be produced by members of the curriculum development team with technical assistance in

formatting, lay out, graphic design, and production for one month during the 1993, 1994, and 1995 school years. This technical assistance will ensure that the newsletter presents material in a simple, short, eye-pleasing format that will be attractive to teachers as well as useful. The project will cover the cost of producing the newsletter during this period which will be the height of curriculum development efforts and the period where ongoing information will be most critical for teachers. The project midterm evaluation will determine the feasibility of continued support for the newsletter by evaluating demand, usage, and willingness of teachers to purchase the publication.

Development of the initial newsletter will take place early in the 1993 school year and will allow members of the curriculum development unit to maintain their desktop publishing skills while preparing the detailed grade-level competencies and curriculum specification to guide subsequent materials development. Thus, they will be prepared to begin production of prototype Spanish language arts materials in the following year.

(c). Provision of Classroom Resources

Many of the classrooms in Nicaragua lack basic resources such as student desks, chalk, blackboards in useable condition and ancillary learning aids that would allow children to take full advantage of the instructional materials to be developed under the project. Thus, the project will contribute to improved classroom learning environments that will support the curriculum development efforts. These are: the provision of school furniture to needy schools and the provision of learning resource kits to all first through fourth grade classrooms.

School furniture and blackboards will be purchased and delivered through the project to approximately 1000 classrooms. Local contractors will be used if possible and will be selected through a bidding process. The classrooms will be selected on the basis of need as identified by the school mapping study to be conducted by the World Bank during the 1992 school year. An additional criterion will be the communities willingness to provide a watchman (CPF) to ensure against theft and vandalism. Furniture will be procured and provided to schools in a phased manner with a third of the classrooms in each of the three years following the World Bank study. This will be done to avoid overtaxing the Ministry's procurement and distribution system in light of the multiple project inputs to be supplied.

In addition, a classroom resource kit consisting of chalk, pencils, maps, and manipulatives for science and math such as magnets, measuring tape, magnifying glasses and graph paper will be assembled for each first, second, third and fourth grade classroom. The materials in the kits will be consistent with activities in both the new teacher guides and the subsequent

instructional materials. The kits will be assembled by the institutional contractor and distributed by the MED during the 1993 school year.

In sum, the Project will provide one long-term advisor for 6 years; approximately 47 person-months of short-term specialists, training costs, studies, and commodities, including hardware and software to prepare teaching materials, textbooks, and related instructional materials., per the budget and Annex 1 (Table IV-3). Adjustments to the planned inputs and the corresponding budget will be made as required based on the yearly workplans to be prepared by the technical assistance contractor and MED counterparts.

G. Role of Women

The social soundness analysis concludes that more females than males never enroll in school, drop out sooner, and have higher repetition rates; these same statistics are many times worse for rural girls. Under the current social and economic conditions prevailing in Nicaragua, there is no simple and universally applicable solution to this problem.

In terms of the Nicaraguan educational systems, MED statistics, school visits and interviews with teachers and parents found no bias against females in terms of either access or efficiency of the primary education system. In addition, classroom observations revealed a similar learning environment for both boys and girls. Socially, however, there are an increasing number of single-mother headed households living in poverty in Nicaragua. Research in other countries suggests that as the number of matrifocal households increases, the pressure on school-age girls to stay home also increases, as girls are required to spend more time involved in household chores and caring for siblings so that the mother can engage in economic pursuits. Thus, the situation of matrifocal families in Nicaragua must be monitored carefully.

The new textbooks are an area of concern in their depiction of women. One of the new textbooks, La Vida Moral y Civico, has a section in which a father is talking to his children about what well-behaved children should be doing. He says that the father's role is to support his family by working while the mother stays home to take care of house and children.

This traditional view of family role structure is contrary to reality in Nicaragua where a large number of households are matrifocal, and the mothers are the only wage earners. A problem occurs when children of single mothers learn about families in school and them realize that their home situation is different. These children may, in fact, be led to believe their home is abnormal, giving rise to feelings of inferiority and generating

anxiety.

The instructional materials to be developed under the Project will attempt to represent Nicaraguan society as it currently exists and in a manner consistent with how many children live. Examples should be given of single working mothers, and of families where both co-resident parents work, a reflection of how the majority of Nicaraguan families are attempting to cope with poverty.

Similarly, the materials will depict women and men in a variety of non-traditional occupation and leadership roles. (Men caring for infants, women airline pilots) as well as both sexes participating in decision making, sharing household chores, and so on. The language arts and social studies methodologies will encourage open discussion of changing patterns and values, and encourage tolerance of others views on gender roles.

In-service training of teachers will pay special attention to strategies that can be used to encourage parents to enroll their daughters or convince them of the utility of remaining in school. Curriculum content will be designated to interest females and to take into consideration local social and cultural variations in gender oriented activities. The proposed surveys, and need assessments for specific project components consider gender issues. It should be noted that most of the teachers to be trained under the project will be female.

V. PROJECT IMPLEMENTATION

A. Implementation Arrangements

A Grant Project Agreement will be signed by the Ministry of External Cooperation and the MED. The MED will be the GON implementing agency.

Technical Assistance, training activities, and some commodities are expected to be provided through an institutional contractor selected competitively, with MED representation in the proposal review and selection committee. The three long-term technical advisors provided by the selected firm (in Administration, Teacher Training, and Curriculum Development) will work with MED counterparts in programming the short-term experts, developing the detailed scopes of work for each expert, and their actual selection. The availability of such short-term experts locally will be explored prior to considering external sources. Funding for their services will be included in the A.I.D. contract with the U.S. firm.

Procurement of commodities will be staged and divided in three groups, based on the availability of funds and the timing for their use, as follows:

(a) **Procurement through a Purchasing Services Agent (PSA).** A Direct A.I.D. contract will be negotiated with a PSA to procure certain commodities which will be needed by MED counterparts and the U.S. technical assistance team as early as possible during project implementation. These commodities include mostly vehicles, office equipment and commodities for the Management Information System, in accordance with a subsequent Table in this section.

(b) **Commodities to be included in the TA Contract.** Commodities to be included in the A.I.D. direct contract with a U.S. technical assistance firm consist mostly of items needed by the T.A. experts after the second year of Project implementation whose specifications should be either prepared or reviewed by concerned experts, such as reference books for libraries, certain school supplies, learning kits for primary school students, supplies for seminars and workshops, and commodities for desktop publishing.

(c) **Textbooks and Instructional Materials (under the Curriculum Development and Instructional Materials Component).** Procurement of existing textbooks and selected instructional materials needed during the first two years of the Project (about $3.5 million in years 1 and 2 as shown in the budget under the Curriculum Development Component) will be carried out through a direct A.I.D. contract with U.S. firm with experience in the field, possibly an 8(a) firm.

The mode of procuring textbooks and instructional materials after this initial stage will be determined during the third year based on the specifications to be developed by the TA experts and MED counterparts and an assessment of MED's capability as to whether it can carry out effectively the procurement process. In any event, whether through a Host Country or a Direct A.I.D. contract, such second stage textbooks and instructional materials are expected to be procured through a competitive bidding process in accordance with prevailing A.I.D. regulations.

Shortly after arrival of the technical assistance team of long-term advisors, a workshop will be carried out to discuss the Project and assure that all those who will participate in its implementation have a common understanding of its goal, objectives and implementation aspects. MED counterparts, assisted by the TA advisors, will take the lead in the organization of the seminar.

A key result of the workshop will be a detailed workplan that includes actions, target dates for their completion and the assignment of responsibilities to specific offices and/or individuals. The workplan will be refined yearly based on implementation experience and the results of the periodic evaluations to be carried throughout the LOP.

The cost of this workshop is expected to be funded by the EHRTS project. If such funding is not immediately available, PD&S funds could be used. As a last recourse, the Project budget includes a contingency fund which could be tapped for this purpose.

B. Methods of Implementation and Financing

Tables V-1 and V-2 show the methods of implementation and financing both by Project component and by source of supply. They indicate the preferred methods of financing the various Project inputs. The amounts represent the best estimates available at the time of Project design. Budget revisions will be made as necessary during the life of the Project based on actual figures negotiated with the various suppliers of goods and services. USAID/Nicaragua will assess MED's capability to enter into Host Country Contract arrangements prior to USAID'S approval of such arrangements. Complementary explanatory information on the amounts shown in the Tables follows the Tables.

Audits will be performed at dates to be established during the life of the Project. Such audits will be the responsibility of the USAID/Nicaragua Controller, who will coordinate with the Regional Inspector General in Tegucigalpa. Funds have been provided under a separate line item of the budget for this purpose.

Table V-1
Methods of Implementation and Financing

Project Component	Method of Implementation	Method of Financing	Amount ($000s)	
1. MED Institutional Strength.				
Technical assistance	AID Direct Contract(TA Firm)	Direct Payment	3,415	
Training (US & 3rd Country)	AID Direct Contract(TA Firm)	Direct Payment	1,250	
Local Seminars & Workshops	AID Direct Contract(TA Firm)	Direct Payment	364	
Commodities	AID Direct Contract(PSA)	Direct Payment	1,831	
Subtotal (including contingency and inflation per Annex 3)				8,859
2. Teacher Training.	(same US firm as #1)			
Technical assistance	AID Direct Contract(TA Firm)	Direct Payment	2,819	
Local Seminars & Workshops	AID Direct Contract(TA Firm)	Reimbursement	1,520	
Commodities	AID Direct Contract(TA Firm)	Direct Payment	1,104	
Subtotal (including contingency and inflation per Annex 3)				5,444
3. Curriculum Development	(same US firm as #1)			
Technical assistance	AID Direct Contract(TA Firm)	Direct Payment	2,813	
Training (US & 3rd Country)	AID Direct Contract(TA Firm)	Direct Payment	36	
Local Seminars & Workshops	AID Direct Contract(TA Firm)	Direct Payment	19	
Commodities	AID Direct Contract(TA Firm)	Direct Payment	1,000	
Commodities	AID Direct Contract(PSA)	Direct Payment	13	
Commodities-Textbooks	AID Direct Contract-8(a) or other	Direct Payment	3,482	
Commodities-Texts/Inst. Mat.	AID Direct of HC	Dir. Pay. or Reimburs.	6,095	
Inflation & Contingency			1,359	
Subtotal				14,817
4. Other Costs				
Home Office Support	AID Direct Contract(TA Firm)	Direct Payment	1,045	
Local Personnel-US TA firm	AID Direct Contract(TA Firm)	Direct Payment	288	
Commodities	AID Direct Contract(TA Firm)	Direct Payment	11	
Commodities	AID Direct Contract(PSA)	Direct Payment	154	
Miscellan. costs-US TA firm	AID Direct Contract(TA Firm)	Direct Payment	201	
USAID/N Local Hire Coordin.	AID Direct Contract W/indiv.	Direct Payment	211	
Other ST TA (TBD)	AID Direct Contract	Direct Payment	369	
Subtotal (including contingency and inflation per Annex 3)				2,280
5. Audits & Evaluations	AID Direct Contracts	Direct Payment	600	600
	Total AID Financing >>			30,000

Basic Education Project
Table V-2
Method of Implementation and Financing By Source of Contract

Expected Contractor	Amount By Year (in US $000s) 1	2	3	4	5	6	Total	Method of Implem.	Method of Financing
1. Technical Assistance (US Firm)	1,970	4,719	3,126	2,335	2,125	1,410	15,685	AID Dir. Cont.	Direct Payment
2. Commodities (PSA)	154	1,064	114	254	136	276	1,998	AID Dir. Cont.	Direct Payment
3. Books & Instr. Mats. (US Firm)	1,700	1,782					3,482	AID Dir. Cont.	Direct Payment
4. Books & Instr. Mats. (To be determined)			1,451	1,523	1,621	1,500	6,095	AID Dir. or HC	Dir. pay. or Reimb.
5. Other ST TA (to be determined)	128	241					369	AID Dir. Cont.	Direct Payment
6. USAID/N Local Hire Coordinator	18	35	37	39	41	41	209	AID Dir. Cont.	Direct Payment
7. Evaluations and Audits (US Firms)		200	50	150	50	150	600	AID Dir. Cont.	Direct Payment
8. Contingency, Misc. & Inflation	30	222	211	297	377	425	1,562		
	4,000	8,262	4,989	4,598	4,350	3,801	30,000		

Per Table V-1 and 2, the funding and the kinds of commodities to be procured under the various contracting modes will be approximately as follows:

	Amount($000s)
1. Through a Procurement Services Agent:	
-- Commodities for the MIS (per Annex 8.d.)	1,232
-- Office equipment	26
-- VCRs, Monitors, Cameras,etc.	8
-- Electronic calculators	3
-- FAX Machines	9
-- Radio base with links	5
-- 19 4x4 vehicles	494
-- 100 mountain bicycles with locks	50
-- 4 vehicles for TA Team	104
-- Commodities for TA Office:Desktop computers, desks/chairs, tels. fax equip.	50
	75
Total (including contingency)	2,056
2. Through the TA Firm:	
-- Seminar supplies	33
-- Basic Education Guide	400
-- Demonstration Schools supplies	520
-- Incentive certificates	90
-- Desktop Publishing & related Equipment	148
-- Instructional materials (learning kits, blackboards, desks, chairs)	1,000
-- 3 portable computers for TA team	12
Total	2,203
3. Through Textbook supplier, 8 (a) and to be determined:	
-- Textbooks and teachers' guides	3,498
-- Textbooks and instructional Materials (contracting capability of the MED to be assessed, if negative AID will contract. In any event supplier will be competitively selected).	6,095
Total	9,593

C. Participating Institutions and Relationships

1. The Ministry of Education

The MED will be the GON implementing agency. The MED will be expected to assign a number of appropriate counterparts from key departments which will be involved in the Project. These counterparts would include a representative of the Minister with decision making authority, and representatives from key offices, such as curriculum and textbook planning offices, teacher training, etc. The Director of Planning is expected to be the overall Project Coordinator for the MED and the key counterpart of TA firm Chief of Party. Specifically, to optimize the transfer of the experts' experience to corresponding MED counterparts, the MED plans to assign office space to each long-

term advisor as close as possible to his counterpart. For example, the LT Curriculum Development Advisor will have office space close or contiguous to the MED Chief of the Curriculum Development Unit, the Teacher Training Advisor close to the Chief of the Teacher Training Office, etc. In addition, the MED is expected to assign adequate space for a pool of project support personnel, such as secretaries, the project administrator, and short-term experts. Space will also be provided for periodic meetings and exchange of information between project-funded experts and MED counterparts.

2. USAID/Nicaragua

USAID/Nicaragua will assign a Project Manager (the Educational Development Officer) who will be the principal contact with the MED counterpart(s) at the policy level. The Project Manager will also assure that other USAID-sponsored activities in Nicaragua, such as the Training for Development Project, RTAC II, the Vocational Education Project, the Employment Generation Project (under which some schools are being repaired), and other donor activities complement and reinforce the BASE Project.

To facilitate implementation, the Project includes funding for a locally hired Project Coordinator, with specialized experience in the basic education area, who will work under the direct supervision of the USAID/Nicaragua Project Manager in the overall coordination of Project implementation activities. If a qualified individual cannot be identified locally, a third-country or US Personal Services Contractor will be hired. This person will monitor the performance of the technical assistance contractor and any other contract financed under the Project.

C. Implementation Plan

Annex 4 (Gantt Chart V-3) shows the major actions that will be carried out to implement the Project. Precise timing and dates for the completion of these actions is not possible now because of uncertainties regarding key procurement activities, such as the signing of the contract with the institutional technical assistance firm. However, as previously indicated, the actions will be refined as a result of a Project workshop to be carried out during the early stages of Project implementation and periodically during the yearly workplan preparation process.

D. Information, Evaluation, and Monitoring Plan

Per AID Evaluation Handbook, Sections 1 and 3.2, an information, evaluation and monitoring plan has been incorporated as an integral part of project implementation. Several interrelated strategies will be employed in the specification of the evaluation design by the project implementation team

consisting of the AID project manager, key unit chiefs of the MED and the chief of party of the technical assistance team. These strategies include: a) formative evaluation built into project activities to provide feedback for project implementers; b) establishment of accurate baseline data sets on which to track progress in system quality and efficiency; and c) the use of external evaluation as a management tool by conducting a rolling evaluation every other year during project implementation and providing results to project implementers in a useful and timely manner.

In addition, routine monitoring will take place through monthly and quarterly reports prepared by the technical assistance team and MED counterparts. Annual reports will also be required to summarize progress and analyze existing problem areas.

(1). Formative Evaluation

Each of the project components will employ formative evaluation techniques to fine-tune interventions. In each component, the results and techniques of the formative evaluation efforts will be incorporated into the routine tracking and monitoring system of the MED developed through the project.

The Institutional Strengthening component of the project will be assisted by an evaluation expert who will review the MED's evaluation capacity and make recommendations for systematic monitoring of that component's activities. This formative evaluation design will focus on determining baseline indicators and constructing measures for all activities in the Institutional Strengthening Component.

Technical assistance providers to the Teacher Training component will work with counterparts to develop formative evaluation plans that will establish objectives for improving individual teaching performance and track progress of trainees over time.

Curriculum and instructional materials development requires the testing of materials in the classroom and subsequent adaptation to actual classroom situations. Materials will be tested at each grade level as they are developed and adapted based on their observed effects with children and teachers. The MED evaluation unit will be trained in qualitative evaluation methods so that formative evaluation of materials will continue beyond the LOP.

(2). External Evaluation as a Management Tool

The lack of existing data for measuring project outcomes and the general lack of experience in project implementation and

evaluation suggest an expanded role for external evaluations of the project. A rolling design which will include three major evaluations, in the second, fourth and sixth year of the project, respectively will be employed. The purpose of the first two evaluations will be to assess the progress made in meeting project implementation goals and to assess the impact of the project after two and four years of implementation. Based on the findings of the evaluations, recommendations for changes in design and implementation procedures will be made, as appropriate, in order to increase the probability that project investments will meet the stated purpose and goal of the project. The evaluations will each have five objectives. They are as follows:

1) To assess the extent to which the project is meeting its goal and purpose. Based on an analysis of the policy indicators and assumptions underlying the project design, the evaluations will recommend changes or modifications in project outputs, end of project indicators, and implementation strategies and foci;

2) To assess the extent to which the project is consistent with AID/W program objectives (i.e., education-sector program) and USAID/N strategic objectives (i.e., improved basic education);

3) To assess the effectiveness and to recommend strategies for improving the project implementation through an analysis of obstacles and bottlenecks as well as achievements in project management and administration;

4) To determine the impact of the project to the date of each evaluation on primary and secondary beneficiaries and the adequacy of project procedures and instruments for monitoring impact in each of the project activities; and

5) To determine the effectiveness of the technical assistance contractor and make recommendations for modifications in implementation in the design of technical assistance delivery as necessary.

The third evaluation will have similar objectives but will also assess the capability of the MED for routine monitoring of its own progress and describe any needed follow-on activities. Each of the evaluations will be responsible for collecting data on educational quality and teacher behavior, mentioned above, which have not been incorporated into MED monitoring systems to be routinely collected. Funds are available to USAID to pay for these evaluations in a separate line item of the proposed project budget.

(3). Establishing a Baseline and Tracking Indicators

Annex 5 presents a summary of statistical analyses of primary school efficiency and enrollment indicators, based on existing data, that were performed as part of the project design process. These analyses provide a set of initial indicators, baselines for student progress through the system, and quantifiable objectives that will serve as benchmarks to be tracked consistently throughout the project. The figures used in this annex differ in some cases from those reported in other AID and GON documents for reasons that are explained in the annex.

While these figures will be used throughout the project, as a key target of the project is to improve data capture and reporting systems, it is expected that the precision of the completion rate data at each grade level, enrollment and promotion figures at each grade level, and related cost figures will improve. In addition, other data such as promotion rate by gender, distribution of teachers and materials to students and the like will begin to be routinely reported and incorporated into the statistical models.

Existing data such as that collected by the AID-funded textbook distribution effort will be reviewed for its usefulness as a baseline for distribution statistics, as changes in teacher and materials ratios can be an indicator of improved management. Data from the World Bank school mapping study will also be incorporated into the MED database, as appropriate, in order to improve the preciseness of indicators.

Where baseline data do not exist as in the case of student academic achievement, these data will be collected as part of the policy study and evaluation activities of the project. For example, the representative sample selected for the policy study on the determinants of repetition will also serve as the sample for measuring student achievement.

Initial testing will be carried out concurrently with the repetition study in the first year of the project to establish a baseline. Existing measures of language arts, mathematics, and social skills that are consistent with the general competencies developed in the first six months of the project will be selected and pilot-tested for appropriate discriminating properties.

The external evaluations to be conducted in the second, fourth and sixth years of the project will build on this baseline by focusing on fourth grade. This grade will be the indicator as it is the grade where the results of the project will cumulate in student performance and where there is general agreement that functional literacy is achieved. Tests will be applied at the end of the corresponding school years. Data will be analyzed by age, sex, gender, and other variables of interest to the MED in

improving educational quality. Similarly, a survey of teacher practices and attitudes toward students will be conducted as part of the initial external evaluation effort to establish a baseline for measuring the effects of the teacher training component.

In addition to establishing a baseline, policy studies can also be used as complementary evaluation data. For instance, the ethnographic study of classrooms to be conducted in the third year of the project will provide contextual data to verify the self reports of teachers and to explain achievement gains through examination of the normal classroom routine and the use of materials on children of different genders and ethnicity in terms of time on task, nature of verbal and nonverbal interactions with teachers and peers, and instructional delivery techniques.

Perhaps the most difficult area in which to determine a baseline and appropriate indicators is that of the institutional strengthening component. Baselines in this area will be established in terms of current management practices in areas of decision-making, budgeting and disbursement of salaries, distribution of materials and the like. Indicators will be determined through agreement of the project implementation team members but are likely to include: reductions in the number of salary transactions pending each month; increases in the number of expenditure and supply requests approved; increases in the number of schools receiving commodities; increases in the number of MED units collaborating in the budget formulation process; and increases in the number of staff meetings and memoranda among MED managers.

VI. ESTIMATED COSTS and FINANCIAL PLAN

The overall cost of the Project is estimated at approximately $37.4 million during a seven-year period. This amount includes an A.I.D. contribution of $30.0 million, and a GON contribution of $7.4 million, as discussed below.

A. The A.I.D. Contribution

The A.I.D. contribution of $30.0 million in development assistance is planned to be provided on an incremental basis during a period of six years starting with an initial obligation of at least $4.0 million in FY 1992.

A.I.D. funds will finance technical assistance, training, policy analysis and implementation, equipment purchases, textbooks, materials and supplies, consultants, administrative support, a local hire Project Coordinator, evaluations, and audits as summarized in Tables VI-1 and VI-2 and detailed in Annex 5, Tables V1-1 through VI-7. These funds will be disbursed for the various project elements as shown in Tables V-1 and V-2 (Methods of Implementation and Financing).

B. The GON Contribution

The GON contribution is approximately $7.4 million, the estimated value of the salaries of the teachers to be trained, MED Project counterparts, logistic support to be provided to project-funded advisors, fuel for vehicles and motorcycles used by national and local supervisors, and the purchase of motorcycles for local level school supervisors. This represents about 20 percent of the estimated cost of the Project. However, per State cable No. 412672 of 12/20/91, the A.I.D. Administrator has approved RLDC status for Nicaragua, which allows the waiver of all or part of the required 25 percent local contribution. Because of the precarious financial situation that the GON is currently facing and the extremely competing demands for its limited resources, it is proposed to waive the balance of the 25 percent contribution. The GON financial situation will be carefully monitored and every effort will be made to increase such contribution, whenever feasible.

C. Other Donors

Other donors are providing or planning to provide assistance to the GON in areas related to the purpose of this Project. The main one is the World Bank (WB). The WB has informed the MED that it is willing to provide on a grant basis initial technical assistance to help during the initial stages of its re-organization. This initial assistance is estimated at $1.0 million. In addition, the WB is funding a detailed assessment of Nicaragua's infrastructure needs in the educational sector. The

results of this study will determine additional WB financing for physical facilities, including school furniture, and certain MED recurrent costs.

Although this assistance is related to the USAID-sponsored BASE Project, WB financing is not included in the above budget because the design does not depend on the WB assistance.

D. **Financial Plan**

There are seven financial tables, all of which include an inflation factor of five percent. These tables relate directly to each of the components discussed in Section IV of this paper. Tables VI-1 and VI-2 show in summary form the illustrative disbursements for all project components by major disbursement category spread over a six-year period. Tables VI-3 through VI-7 (per Annex 3) show in detail the estimated financing requirements by project component, category and year, the estimated mix of foreign exchange and local currency requirements, and the estimated costing of major project outputs.

The Curriculum Development Component, which includes, technical assistance, training, and the purchase of textbooks is planned to account for about 50 percent of the A.I.D. contribution, Teacher Training 18 percent, Institutional Development of the MED 23 percent and the balance of 9 percent other costs, audits, evaluations and the salary of a local hire Project Coordinator. TA will account for 30 percent of the budget; training, workshops and seminars for 11 percent, commodities for 50 percent, and other costs 9 percent. This distribution of the AID resources is consistent with the outputs that need to be produced to attain the project purpose. Nevertheless, it is envisioned the need for revisions of the financial requirements under each project component during the life of the project. These will be done through Implementation Letters based on project implementation experience.

The reader should note the illustrative and estimated nature of the costing of project inputs and the corresponding disbursement estimates. It is envisioned that a number of adjustments will be necessary based on project implementation experience. These adjustments will be made and documented through Project Implementation Letters (PILs). The basis for such adjustments will be the negotiated contracts with the US firm, contracts with local technicians, pro-forma invoices requested from potential suppliers of goods and services, recommendations made by the U.S. technical assistance experts once project implementation is well underway, and the yearly workplans to be prepared by the technical assistance experts and MED counterparts.

Basic Education Project
Table VI-1
Preliminary Budget Estimate by Year and Component

(in US $000s)

Component	Year 1	2	3	4	5	6	Total	Percent
MED Instit. Strengthening	725	2,725	1,278	792	605	735	6,859	23%
Teacher Training	479	1,879	720	674	964	729	5,444	18%
Curriculum Development	2,371	2,890	2,611	2,636	2,401	1,908	14,817	49%
Other Costs of US TA Firm	280	292	294	307	289	238	1,700	6%
USAID Project Coord.– Local Hire	18	35	37	39	41	43	211	1%
Unprogrammed Short-term TA	128	241					369	1%
Evaluations & Audits	0	200	50	150	50	150	600	2%
Total	4,000	8,262	4,989	4,598	4,350	3,801	30,000	100%
Percent	13%	28%	17%	15%	14%	13%	100%	

Basic Education Project
Table VI-2
Preliminary Budget Estimate by Category and Component

(in US $000s)

Category	Instit. Strenght. FX	Instit. Strenght. LC	Teacher Training FX	Teacher Training LC	Curric. Developmt. FX	Curric. Developmt. LC	LOP Total FX	LOP Total LC	Grand Total	Percent
Technical Assistance	3,082	330	2,193	626	2,391	422	7,667	1,377	9,044	30%
Training	1,250	364	915	605	55	0	2,220	969	3,189	11%
Commodities	1,831	0	1,104	0	11,949	0	14,885	0	14,885	50%
Other Costs, including local Personnel & Office Space, utils.,etc.							1,387	313	1,700	6%
Unprogrammed Short-term TA							369	0	369	1%
USAID/N Project Coordinator							0	211	211	1%
Evaluations & Audits							600	0	600	2%
Total	6,163	694	4,213	1,231	14,395	422	27,127	2,870	29,997	100%
Percent	21%	2%	14%	4%	48%	1%	90%	10%	100%	

Note: Numbers do not add precisely to $30,000 due to roundings.

Basic Education Project
Table VI-2A
Government of Nicaragua Contribution
Estimated Budget (in US Dollars)

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Total All Years
1. MED Strengthening								
A. Counterpart Personnel:								
— Directors of Plang. Education, Admin., Sup.	25,939	25,939	25,939	25,939	25,939	25,939	25,939	181,574
— Office Directors: Informática, Curriculo, Capacitación Docente, Director Primaria, Finanzas, Recursos Humanos, Servicios Generales, Proyectos, Educación Básica	44,755	44,755	44,755	44,755	44,755	44,755	44,755	313,286
— MIS (Informática personnel)	45,600	45,600	45,600	45,600	45,600	45,600	45,600	319,200
— Finanzas	20,094	20,094	20,094	20,094	20,094	20,094	20,094	140,658
— Recursos Humanos	15,957	15,957	15,957	15,957	15,957	15,957	15,957	111,699
— Almacén	1,182	1,182	1,182	1,182	1,182	1,182	1,182	8,274
— Directores de Cabecera Municipal while in training								11,742
B. Office Space	14,400	14,400	14,400	14,400	14,400	14,400	14,400	100,800
2. Teacher Training								
A. Counterpart Personnel-Form.Docente								
— Formación Docente	25,344	25,344	25,344	25,344	25,344	25,344	25,344	177,408
— Educación Primaria	25,344	25,344	25,344	25,344	25,344	25,344	25,344	177,408
— Salaries of teachers while in training: (12,000 teachers, avg training of 3 mon/each avg salary C$660 cords/mo or US$132/mo.								4,752,000
— Salaries of supervisors while in training: (19 supervisors, avg training of 2 months each avg salary of C$2,640/mo. or US$528/mon.								20,064
B. Office Space Approx. 40 Sq.Mt @150 Cords/sm per month(US$30/SMper month)	14,400	14,400	14,400	14,400	14,400	14,400	14,400	100,800
3. Curriculum Development								
A. Counterpart Personnel								
— Oficina Mat. Didácticos: 16 persons, 50% of their time (C$1,320/mo. or US$264 each) salary	25,344	25,344	25,344	25,344	25,344	25,344	25,344	177,408
B. Office Space Approx. 100 Sq.Mt @150 Cords/sm per month(US$30/SMper month)	36,000	36,000	36,000	36,000	36,000	36,000	36,000	252,000
4. Office space-ST Advisors Approx. 40 Sq.Mt @150 Cords/sm per month(US$30/SMper month)	14,400	14,400	14,400	14,400	14,400	14,400	14,400	100,800
5. Conference Room for TEAM Approx. 30 Sq.Mt @150 Cords/sm per month(US$30/SMper month)	10,800	10,800	10,800	10,800	10,800	10,800	10,800	75,600
6. Purchase of 60 motorcycles for local level supervisors at approx. US$1,667 each		100,000						100,000
7. Other Logistic Support: fuel, 80 gallons diesel/mon. @ 6 cords/gallon @ C$6 a gallon or US$1.20/19 veh.	21,888	21,888	21,888	21,888	21,888	21,888	21,888	153,216
8. Other Logistic Support: fuel, 20 gallons gasoline/mon. @ 10 cords/gallon or US$2.00 for 60 motorcycles		28,800	28,800	28,800	28,800	28,800	28,800	172,800
Total	341,447	470,247	370,247	370,247	370,247	370,247	370,247	$7,446,738

E. Conditions Precedent

Prior to the first disbursement under the Grant or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D.:

(1) a legal opinion of the Attorney General of Nicaragua, or other counsel acceptable to A.I.D., stating that this Agreement has been duly authorized, or ratified by, and executed on behalf of the Grantee, and that it constitutes a valid and legally binding obligation of the Grantee in accordance with all of its terms; and

(2) a statement of the name(s) of the person(s) holding or acting in the office of the Grantee specified in Section 8.2 of the Agreement and of any additional representatives, together with a specimen signature of each person specified in such statement.

F. Covenants

To complement the range of policy decisions already taken by the MED and to be implemented during the LOP, the Project Agreement to be negotiated with the MED will include covenants requiring the MED to undertake the following actions:

1. Establish a Consultative Policy Mechanism to review, design and implement educational sector policies. This entails a continued GON commitment to carry out sound policy reforms for basic education.

2. Assign an appropriate number of counterpart personnel from its Normal School Staff to work with U.S. experts and central MED counterparts in the design of primary school curriculum strategy, the design of instructional materials, and in field-testing both the curriculum and the instructional materials to be developed during project implementation.

3. Designate 40 demonstration schools to train MED personnel involved in primary education and test primary school instructional materials developed under the Project.

4. Establish 12 training centers within the existing 12 Normal Schools to train teachers.

5. Establish the mechanisms and assign the required personnel to maintain and safeguard the vehicles and other commodities financed by A.I.D. under the Project.

VII. PROJECT ANALYSES SUMMARIES

A. Economic Analysis

The economic analysis (Annex 8.a.) examines the costs and benefits associated with the BASE Project and concludes that the expected benefits outweight the direct and indirect costs of the Project. It shows that there is solid evidence to suggest that the Project is a worthwile investment for Nicaragua, and that the medium and short-term outcomes warrant investing limited resources in Project activities.

The Project will set in motion improvements in system's efficiency that could lead, over a 10 year period, to a 13% increase in the percentage of students who graduate from primary education and to substantial savings in internal efficiency, such as more than doubling the percentage who graduate without repeating. It is expected that the BASE Project will contribute to increase the average number of years of primary education approved from 3 to 4 for all those who graduate. As a result of the Project the cost per graduate will be reduced by 19%. The bill for repeaters will go down from 26% of all primary education expenditures now to 13% of all primary education expenditures in the year 2000.

Given the emphasis of the Project on sustained institutional development and capacity building, rather than on the provision of deliverables, the analysis of benefits was done over a timeframe exceeding the LOP. A conservative analysis looks at the impact over the next 10 years, though the benefits of enhanced institutional capacity should be understood to be sustained over time.

Though the benefits of increased external efficiency resulting from an increase in the population completing primary school cannot be fully documented given the lack of information on salary levels by levels of education in Nicaragua, the analysis presents indirect evidence supporting the assumption that these gains to the productivity of the labor force are in Nicaragua at least as high, if not higher, as the gains in other countries in the region.

The analysis also presents evidence from Nicaragua supporting gains in health and nutrition which would be derived from increases in the number of primary school years approved.

The discounted savings in internal efficiency in the system can be documented and, over a 10 year period, are estimated to equal 71% of the costs of the Project.

This evidence alone suggests that the benefit cost ratio of this Project would be positive and exceeding the opportunity cost

of capital in Nicaragua.

In addition there are important benefits of enhancing the quality of the labor force and the education level of the population in a society that is attempting to consolidate democracy, though the internal rate of return of those cannot be quantified, the analysis substantiates these expected benefits to economic development in the current context in Nicaragua.

D. Financial and Policy Framework

The GON has undertaken major reforms since April 25 1990. Overall, these reforms revolve around three major themes: the establishment of a pluralistic society, reactivation of the economy, and consolidation of peace. The Policy Analysis Annex discusses the education policy environment in this context.

The analysis reviews the GON education policy agenda and its prospects, and discusses the fit between the proposed USAID-sponsored BASE Project and national policies. The assumption that underlies the analysis is that the likelihood that the Project will contribute to long-term institutional development, and that the activities initiated under the Project will be sustained, will be a function of the match between the Project's objectives and design and the government education policies. The analysis also suggests ways to promote the sustainability of government education policies.

The analysis of the education policies of the GON since April 1990 and of the process by which those policies were shaped reveals an array of policies, with limited priorization, contradictions and lack of knowledge or confusion among senior staff about the MED priorities. Major factors for this situation include the limited participation of key figures in the MED in policy design, lack of opportunities to discuss and disseminate policies and lack of institutional capacity for policy analysis in the Ministry.

In addition, key MED staff have been heavily busy responding to hostilities from the main oposition union (ANDEN). ANDEN has placed MED leadership in a 'reactive' mode, limiting their ability to focus on developing and carrying out their own educational reform agenda.

However, there are encouraging and definite signs showing that the MED in moving in the right direction to establish education policy priorities and reach national consensus on such policies. The MED, however, is seriously handicapped in its ability to carry out education policy analysis, to institutionalize mechanisms of consultation, negotiation, and implementation of such policies.

The GON has an explicit commitment to education. This commitment has a broad-base of support which extends beyond the government coalition as suggested by the fact that education is not one of the many themes included for discussion and negotiation in the current policy dialogue the GON is carrying out with the main government coalition and with the FSLN. This broad-based support is suggested also by the fact that the GON has been able to carry out transfers of expenditures from Defense to the Education Sector. Indeed, there have been noticeable increases in education expenditures relative to government expenditures in the last two years. Education expenditures as a percentage of total government expenditures increased from 8.8% in 1989 to 14.6% in 1990 and to 18% in 1991. Defense expenditures, in contrast, declined from 39% of government expenditures in 1989 and 1990 to 20% in 1991.

Within the education sector, there are recent indications that GON has assigned high priority to primary education. The GON has backed repeatedly announced public statements by the Minister of the Presidency and the Minister of Education by actual increases in the budget allocated to primary education. The share of primary education in the total education budget increased from 26% in 1990 to 34% in 1991.

Despite the above progress, the Policy Analysis Annex concludes that there are serious problems which reflect the MED's poor capability for policy analysis, development and implementation. For example:

-- A review of recent policy documents and interviews with key staff in the MED suggests a broad, sometimes conflicting, education agenda. Only recently has the Minister stated the need to establish priorities and proposed some, though there is no evidence of the degree to which the need to prioritize has been internalized by even his closest advisors. The tradition in the Ministry in policy formulation is to produce 'wish lists' with limited concern for resource scarcity, a tradition highly disfunctional in the current climate of severe resource constrains.

-- Articles 116 to 128 of the Constitution define broad education goals. These are general enough that their interpretation would leave enough room for a wide range of policies. Article 121 states that basic education is free and mandatory, this mandate would be in conflict with a MED proposal of mandatory tuition fees at this level. The Constitution does not give priority to any particular level or type of education. Article 125 states that higher education is financially autonomous, this might leave room for initiatives aimed at cost recovery at this level.

In summary, the analysis recommends:

-- that the senior ministry staff participate in a process that examined the consistency accross policies and strategies (a matrix of policies by strategies) to identify strategies with potential to address more than one policy domain as a means to prioritize strategies and to examine the feasibility of the targets that are set.

-- setting up appropriate communication and dissemination mechanisms to inform all relevant actors of the GON policy.

-- a focus on primary education, specifically to increase the quality of instruction in the first four grades, focusing in developing reading and writing ability and in training multigrade teachers.

-- a review of the proposed policy of municipalization.

-- setting up a system of exchange centers to recycle the textbooks in primary schools, a "Banco del Libro" scheme.

Finally, the analysis concludes that given the focus of the previous regime in expanding quantitative access to primary education when enrollments in primary education grew at an annual rate of 9.1% while population grew at 3.4% per year between 1978 and 1987, the analysis concludes that it would be advisable to concentrate resources in qualitative improvement to increase the opportunities to learn for those students who are currently in the schools.

C. Financial and Budgetary Process

In the MED, the budget is divided into programs which generally correspond to the major administrative structures at the directorate level, and then detail line items in accordance with the Ministry of Finance codes. In theory, the budget is formulated by implementing units in accordance with guidelines issued by the Minister's office. However, these units do not know what their budget is, how it has been expended in the past, or what other resources might be available in the MED.

With some 93% of the MED's budget assigned to personnel, little regular budget funds are left over for the MED to actually manage. External assistance, while considered during the budget trimming negotiations conducted by the Ministry of Finance (MIFIN), is not integrated with the MED's regular budget, even for internal MED planning and use. This isolation makes it difficult to rationally administer the scarce funds available for non-personnel items. The MED officials are also limited in their effectiveness during budget negotiations by the lack of data on budget execution, growth projections, likely impact of new

priority programs, etc.

Even though most regular budget funds are managed by the MIFIN, the MED does manage some funds from the GON and other sources. Rotating (advance account) funds are used both centrally and in some regions (although inappropriate use and failure to liquidate have closed some of these accounts). At present, 14 separate local currency and dollar accounts are held by the central MED to implement different donor projects. The status of these accounts (and of their related projects) is poorly controlled and fragmented.

In the current centralized system, MED units request MIFIN to approve and make expenditures through a payment request form. The lengthy delays in processing inherent in this system are obvious, but much time and effort is wasted by requesting the expenditure of non-existent funds. Since no one in the MED really knows the balance of the accounts controlled by MIFIN, it is easy to either exceed budgeted amounts or fail to use them at all.

The MED expects the newly created Department offices to act as implementing units, handling both budget formulation and budget execution. The MED recognizes that significant improvements must be made in terms of the management skills and tools available in these offices if effective decentralization is to be achieved.

The analysis recommends establishing computer software systems for budget formulation, balance queries and expenditure tracking to occur in each MED implementing unit, and for the consolidation of this information for control and planning purposes at the central MED. An expenditure request tracking system should also be developed to improve follow-up. At the central level, systems should be set-up to provide a combined view of both regular and external finance status, even though it is recognized that these data will not be "official" in the eyes of MIFIN. But given the general non-responsiveness of MIFIN to the MED's requests for information, the Planning Directorate has indicated that it much prefers "approximate" data to none at all.

In order to handle the MED's needs for better managing the checking accounts it does possess, a cash accounting software system should be adapted or developed to provide basic cash flow management and reporting capabilities for these accounts.

D. Institutional Analysis of the MED

The constitution mandates the Ministry of Education (MED) to administer the delivery of educational services in Nicaragua. Its responsibilities include the supervision, regulation, and inspection of public education and overseeing the technical

adequacy of teaching at private schools. The entire ministry is a massive bureaucracy which includes about 30,000 employees. The majority of these employees are teachers (approximately 24,000).

Traditionally the MED itself has been organizationally divided into a Central Ministry, Regional and Municipal Offices, and schools or educational centers. Much of the MED is centrally administered.

Currently, the MED does not have a functioning management and supervisory system, adequate procedures for personnel, and budgeting procedures and its operational processes are erratic. Staff morale is low due to recent work force reductions and performance is impossible to measure. Organizational functions are unclear and some are ignored or duplicated. Most administrative staff members doe not have administrative training or experience and come from teaching or other non pertinent backgrounds. MED also lacks the resources that it needs to hire, train, and equip qualified Central Ministry staff. Its current budget is approximately $8 million from the GON central budget. Approximately 96% of this budget is absorbed in fixed costs such as personnel and utilities.

The Minister of Education and the Minister of the Presidency at the recent, First National Congress of Education, both stated that primary education is the government's most important educational priority. The Minister of Education has emphasized that the goal of the MED is to improve the quality and the efficiency of Primary Education. In accord with this emphasis, the MED has undergone a recent reorganization with an emphasis on the deconcentration of decision making and control of resources that will lead to a decentralization to municipal delegations (see attachments). In order to reach the ultimate goal of a decentralized educational system, the MED is concentrating on five key areas:

(1) improving the management, functioning, capacity and capabilities of the Central MED;
(2) modernizing the management sub systems at the Central MED;
(3) establishing Central MED planning and project management system;
(4) improving Central MED policy setting and supervision.
(5) municipalization of the MED;

The former General Directorate of Adult Education has been removed. Adult Education now falls under a Sub Directorate of Non Basic Education which is one of the two major sub directorates. Logically, the other Sub Directorate is Basic Education. Also, supervision for the Normal Schools and the Teacher Training Program has been placed directly under the supervision of the Director General of Education. The creation

of sub directorates, with sub directors, will allow for better management of programs and funds devoted to basic education.

Most of the MED key sub systems are in disarray or non functioning. In position classification for example, the MED uses a simple, outdated, system of four job classifications. The MED personnel records for both administrative and teaching personnel are a shambles. The MED does not have a performance appraisal system. At present, the payroll department employs about a third of the people in the Human Resources Section in laborious manual processes that are rife with error and the possibility of abuse. Most managers have no idea of what the budget for their program is nor an idea how to manage it. A controllable system for filling and keeping track of orders, inventory on hand, and purchase needs does not exist.

The present Regional Delegations of the MED are being removed and their role as an intermediary structure between the Central MED and the municipal delegations will be replaced by two new structures. The coordinating function of the Regional Delegation will be passed to an office of Municipal Coordination which will reside in the chief city of a department at the Municipal Delegation. This office will have the responsibility for coordinating activities that are to be mounted in the department at each of the regional delegations.

At the Central MED, a newly created General Directorate of Educational Supervision has been created. This office will house the administrative link between the Central MED and the Municipalities. It will have 22 National Supervisors who will each have a department assigned to them (or a district in the case of Managua). These supervisors will be located in Managua a the Central MED. They will travel to their department, coordinating with the office of municipal coordination at the departmental capital.

E. Teacher Training

The analysis shows that there are currently 18,000 primary school teachers in Nicaragua of which approximately 8,400 (47%) are not certified. Nicaragua's has twelve Normal Schools. These are currently functioning at a minimal level and have very serious problems related to financial resources, infrastructure, curriculum and instruction, inability to meet current teacher demands, inability to produce their own teaching materials, antiquated and inadequate libraries. They do not support a regular in-service training program.

Children continue to receive poor quality instruction at the primary level and the GON does not currently possess the qualified human, adequate financial, and appropriate instructional material resources required to address these

concerns. A poorly trained teacher with the finest child-centered instructional materials is unable to contribute to the improvement of the quality of education. A simultaneous intervention in teacher training and instructional materials is required.

The GONs' precarious financial situation does not allow the required investments in the sector. The unemployment rate is over 40%; and the new Teacher Profession Law (Ley de Carrera Docente), if implemented to the letter, will reduce the number of hours a teachers works to 25 per week. This law will increase teachers' salaries, but little, if any, funds generated for the education sector will become available soon for significant GON interventions which contribute to the improvement of the quality and efficiency of education. If the Teacher Profession Law is not implemented, it may result in massive teacher strikes spearheaded by union leadership and fueled by the cost-of-living.

The new GON Law of the Teaching Profession, "Ley de Carrera Docente", requires the MED to make provisions for teacher certification. It concerns four categories of uncertified employed teachers exists: a) those with less than a sixth grade education; b) those with a sixth grade education; c)those with a ninth grade education; d) and those with a twelfth grade education. It is suspected that the majority of uncertified teachers are assigned to rural areas and, more than likely, assigned to positions of teaching responsibility in grades one through three where the problem of quality seems to be the greatest. The MED teacher accreditation process will continue to graduate between 1,200 and 1,600 certified teachers per year.

Plan A non-certified teachers (sixth grade academic training) in the above mentioned program are required to attend classes the equivalent of 90 days per year during a four year period; Plan B non-certified teachers are required to attend 90 per year for a three year period; and Plan C non-certified teachers attend 90 days per year for a two-year period. Current data and information indicates the accreditation program is functioning.

The major problems which discourage teacher participation in the professionalization program are costs related to transportation, food, and lodging. For example, Normal school directors and Central MED Directorate of Formal Education representatives estimate that given the current cost-of-living, per diem should be approximately equivalent to US$13.00 ($5.00 for lodging and $8.00 for meals); and average monthly transportation costs approximately equivalent to US$22.00. Additionally, normal school itinerant professors are currently traveling with a meager subsistence per diem of the equivalent to US$3.40.

The analysis concludes that to address the above problems Nicaragua requires a cadre of retrained teachers, methodologists, Normal School personnel, as well as instructional materials; and teacher incentives to improve teacher status and retain committed teachers through motivation and nurturing of self-image.

It recommends a focus on pre-service education for future primary level teachers; provision of teacher accreditation program incentives; provision of instructional materials approved and reproduced for significant interventions at the classroom level which are expected to contribute to the improvement of basic education and qualitative educational opportunity for children; provision of model practice teaching classrooms; demonstration schools; libraries accessible to pre-service trainees and personnel, as well as to in-service personnel. Parents and the community will also receive materials and training during the LOP, including orientation and training regarding the role of the home and the community as it relates to how children learn and how they should be taught.

F. Curriculum Development and Instructional Materials

The Nicaraguan Ministry of Education is currently using curriculum materials for primary school which consist of a series of textbooks and accompanying teachers guides that have been adapted from existing texts developed for use in other Latin American countries. The books were an initial project of the Ministry of Education under the newly elected UNO government aimed at depoliticizing the textbooks of the previous government which were seen as highly political and dogmatic.

The textbooks were made possible through a donation from USAID/N through a buy-in to the centrally funded RTAC contract. As it was clear that there would be no time to compose and print entirely new textbooks in less than the year between the change of government and the 1991 school year, the MED organized teams to review the best existing books in Latin America, acquired through RTAC, and to adapt them to Nicaragua.

Thus, while the current books represent a tremendous effort on the part of the Ministry, there is a general recognition that the curriculum is not coherently organized to meet the needs of Nicaraguan children. Initial steps have been taken to specify a set of instructional objectives through a national congress involving representatives from all Nicaraguan interest groups and through the development of a national four-year education plan. However, the Ministry lacks the trained human resources to translate such broad objectives into grade level competencies and to develop instructional materials appropriate for reaching such competencies. Without the specification of competencies, adaptations in existing teacher guides to make the current textbooks as useful as possible cannot be carried out, nor can

new instructional materials be successfully developed.

The analysis concludes that the MED needs to create a capacity within the MED curriculum department to develop appropriate modular instructional materials that have the flexibility to be used effectively in a variety of current and future instructional configurations (e.g. unitary first and second grade, multigrade classrooms). These materials should focus directly on educational quality as defined through student grade level competencies identified by the MED. The targeting of competencies needed for academic advancement should allow the development of a coherent curriculum addressing the serious problem of the repetition, which is estimated as high as 50% in the first grade, and thereby improve internal efficiency of the Nicaraguan primary education system. Improved curriculum development capacity should also allow the development of appropriate modules that reflect local community and cultural needs in support of the ongoing municipalization effort of the Ministry of Education.

The MED alos must develop mechanisms to finance the production of instructional materials over the long run. The team recommended that feasibility studies be carried out tp develop cost recovery strategies, providing replacement costs for textbooks in the short run, and training key members of the curriculum unit in low-cost alternatives for materials production.

G. Social Soundness

Events in Nicaragua during the past decade has left the country with high unemployment rates, low per capita incomes, and a severely debilitated educational system. Poverty in Nicaragua is widespread and increasing at an unknown rate. High rates of malnutrition are a strong indicator of the deteriorating economic circumstances in which most Nicaragua families live, and stunting is the principal nutritional problem, affecting 30-35% of the children in marginal and poor areas of the country. The educational consequences of stunted growth in school-age children include poor cognitive abilities, decreased aerobic activities, and significant reduction in alertness. Important health effects are increased morbidity and mortality rates, a 30% increase in time needed to recuperate from frequent diarrheal episodes, and increased chances that acute respiratory infections turn into pneumonia. All of these consequences have immediate bearing on learning ability, school achievement, grade repetition rates, and school desertion.

In spite of the current socioeconomic situation, Nicaraguan communities have a recent history of organizing themselves into self-help groups and can work effectively with either municipal authorities through the *Comité Comarcal* or with their local

schools as members of the *Consejo Consultivo de Padres de Familia*. Furthermore, the teachers appeared much more willing to work with parents than in certain other parts of Central America, and not a single parent complained about the teachers in terms of unwillingness to work with them or high rates of absenteeism from the school.

The degree of parental support of school projects was found to be highly variable but linked to the economic status of the corresponding communities and *municipios*. It is safe to say that if resources are available in the form of outside financing, either partial or complete, most communities have the organizational capabilities and motivation to provide labor for school construction, repairs, and periodic maintenance.

The most pressing problem for primary education in all the areas visited was a lack of adequate schools and the deteriorating or substandard condition of the existing schools. Both teachers and parents felt that educational quality was suffering under the current conditions. New or refurbished schools are in immediate danger of being stripped by thieves, and scarce financial resources spent on school construction or repair would be wasted without the proper security personnel.

After the introduction of new textbooks, many teachers were found to be quite critical of both book design and content, especially in terms of what they considered to be poor adaptation of foreign material to the Nicaraguan context. Moreover, they considered the training workshops completely useless and expressed frustration over their inability to teach adequately from the new books. Teachers expressed a strong desire to have new and redesigned workshops and wanted to receive comprehensive teacher guides on how the new books should be used.

In terms of specific Project interventions, the recent MED reorganization eliminating the Regional Offices with the intent of providing greater autonomy for the Municipal Delegations shows a willingness to decentralize. The purpose was to provide the Municipal Delegations with the authority and ability to respond directly to the schools in their areas, address problems without having to contact Managua for authorization and funding, and be able to interact more effectively with community groups. It should not take long for the members community leaders and parents to become aware of the new structural relations between teachers and the MED. This would be especially beneficial for school maintenance projects and the recruitment of parents to watch over buildings and facilities at night and when schools are not in session.

One of the most important components of the BASE project is to develop and implement strategies to improve teaching methods and curriculum design. An effective and well-designed in-service

training program does have the potential for achieving the intended goals, providing the master teachers and other instructional personnel are carefully selected and appropriately trained. One of the most important considerations is how to determine the effects of in-service training on how teachers work in the classroom and with parental and other community organizations. Classroom ethnographic observations and focus groups with parents should be able to provide most of the necessary data, providing adequately trained personnel are used.

The curriculum must be made culturally relevant to the students' environments and daily life experiences. This would mean that curriculum designers would have to be thoroughly familiar with local socioeconomic circumstances and make every attempt to reflect these realities. Because opportunity costs for sending children to school are already considered to be very high for a large portion of the Nicaraguan population, a curriculum which can be readily recognized as familiar in terms of setting, the use of verbal descriptions and illustrations will contribute to more positive attitudes towards education. Furthermore, real-life problems should be depicted, especially those faced by female-headed households. In order to address these issues, the Project should undertake a study to identify appropriate content based on regional variations in terms of environment, language, kinds of agriculture/industry/wage labor and local history. Examples should be given of single working mothers, and of families where both co-resident parents work, a reflection of how the majority of Nicaraguan families are attempting to cope with poverty.

In-service training of teachers should pay special attention to strategies that can be used to encourage parents to enroll their daughters or convince them of the utility of remaining in school. Curriculum content should be designed to interest females and to take into consideration local social and cultural variations in gender oriented activities.

Special efforts should be made to meet the needs of the ethnic groups in the eastern part of the country and along the Atlantic coast. The MED does have some experience with bilingual education but has never had the benefits of linguistic mapping and technical assistance from bilingual education experts. Every effort should be made to improve the educational opportunities for these special populations, particularly in view of the recent history of conflict and alienation from the national government in Managua.

BASIC EDUCATION PROJECT

(524-0329)

ANNEXES

TABLE IV-1
INSTITUTIONAL STRENGTHENING ASSISTANCE PLAN

Under this Component, the Project will provide one LT advisor for up to 72 PMs and approximately 77 PMs of short-term technical assistance. The following Table summarizes the major problems the technical assistance funded by the Project will address. Numbers of PMs of TA do not necessarily add to the above totals as some experts will deal with more than one problem. The detailed budget (Annex 3) provides details of the specific TA area and the planned year for each technician.

MAJOR PROBLEM	TECHNICAL ASSISTANCE (TA)	YR. & Qtr	MAIN EFFECTS
CENTRAL MED OPERATIONS: 1.Inexperienced, inadequate and inefficient management and supervision.	– One LT and approx. 32 pms of ST TA provided to train MED personnel on the job and through local Management Training Workshops.	1992 thru 1997	– MED personnel in key offices (Human Resources, Planning, Training, etc.)trained. – Face to Face Management System established. – Training needs assessment and training plan prepared and implemented. __ at least 600 MED personnel trained.
2.Deficient human resources burdened by incomplete, slow, and antiquated personnel processes.	– One LT and approx. 32 pms of ST TA (same as above) will help MED counterparts in developing systems and operating manuals.	1993 thru 1997	–Redesign and automation of Personnel and Payroll Process and Records. – Merit Personnel System Developed. – Performance Appraisal System installed. – operating manuals for key offices developed.
3. Outdated budget preparation and lack of up-to-date budget information.	– 3 pms of budgeting and 3pms of accounting specialists.	1993 and 1994	– Budget Process Manual prepared. – Automated Accounting System established. – MED staff trained on the use of above.
4. Centralized policy formulation and lack of policy communication.	– 4 pms of planning and policy analysis expert.	1993	– Consultative management and policy communication system developed. – Training of MED staff on consultative management. – Study on administrative contributions to basic education.
5.Inability to distribute and account for materials.	– 6 pms of logistics and storage specialist.	1993	– Improved storage and security. – Establish automated inventory control system. – Train med personnel.
POLICY FORMULATION: 1.Centralized control and cumbersome redundant structure.	– LT advisor and up to 16 pms of ST assistance in areas of planning and public administration.	1992 thru 1997	– Effective policy formulation and implementation process established. – Feasibility Study on Decentralization. – Study on Community Involvement. – Phased Decentralization Plan. – elimination of regional delegations. – Link Central MED and Municipal Delegation Through New General Directorate of Educational Supervision.
2. Inadequately defined functions and responsibilities for new offices (municipal coordination & supervision directorate).	– LT advisor and up to 16 pms of ST assistance in areas of planning and public administration. (mainly same experts as in #1).	1992 thru 1997	– Develop Policies and Procedures Manual with Organizational functions. – Organization of New Offices and Design of Procedures and Data Collection Formats.

3.Deficient human and material resources and defined systems to support municipalization.	– LT advisor and up to 16 pms of ST assistance in areas of planning and public administration. (mainly same experts as in #1); and local experts to carry out municipalization studies.	1992 thru 1997	– feasibility study on local revenue generation – municipal delegation training in management, budgeting, and human relations, and supervision.
<u>IMPROVING MGT. INFORMATION</u> 1. Poor information base to facilitate educational planning, the allocation of resources, and related decision-making processes. Planning process, producing little information for decision makers.	– up to 16 pms of ST experts on information systems design, use, evaluation, including: – 9 pms of short-term expert in educational MIS design and implementation. – 7 pms of short-term expert to help in the design of new applications and promotion of the utilization of system products.	1992 thru 1997 1992 thru 1994 1993 thru 1997	– MIS established and central and municipal level employees trained on the effective use of the system. – redesign of planning cycle and process. – Design and installation of capacity and quality indicators tracking process. – Design and installation of automated project management system. – Automation of planning function.

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TABLE IV-2
TEACHER TRAINING TECHNICAL ASSISTANCE PLAN

Under this Component, the Project will provide one LT advisor for up to 60 PMs and approximately 35 PMs of short-term technical assistance. The following Table summarizes the major problems the technical assistance funded by the Project will address. Numbers of PMs of TA do not necessarily add to the above totals as some experts will deal with more than one problem. The detailed budget (Annex 3) provides details of the specific TA area and the planned year for each technician.

PROBLEM	TECHNICAL ASSISTANCE (TA)	YEAR & Qtr	Effect
1) MED decision makers at the central and local level; teachers; Normal School administrators and professors; parents; community leaders; NGOs; and some donors do not have information on lessons learned in basic education, nor do they possess access to skills or proven technology to become proactive contributors to addressing Nicaragua's primary education problems.	1) 7 ST experts for 10 days each to develop a Basic Education Guide.	1992 Q-4	1) Basic Education Guide developed. Of 20,000 copies distributed to all primary level teachers of public schools; MED administrators and managers; Normal Schools staff; and target population. Guide will be used to develop and implement action plans for improving the quality of primary education.
2) Lack of capability to procure instructional and didactic materials.	2) 100 p/d of ST-TA of procurement expert to help plan, procure, and distribute materials which support teaching tasks.	1993 Q-2, Q-3	2) Expert will also train MED personnel.
3) MED counterparts and decision makers lack knowledge and skills on Project implementation strategy of teacher training activities.	3) 15 p/d x 2 experts in project planning, implementation, and evaluation work with MED decision makers, teachers, and Normal School personnel to develop implementation strategy.	1993 Q-2/3	MED counterparts and short-term technicians, develop Implementation strategy to be followed of MED counterparts.
4) MED central and local staff require training for planning and executing teacher training activities.	4) U.S or 3rd Country LT Teacher Training and Instructional Materials technician (60 p/m); local hire LT Teacher Training and Instructional Materials technician (60 p/m) to assist the MED execute 1993-1998 Teacher Training Global Plan, annual plans, and evaluation plans.	1993 Q-4 thru 1998 Q-3	4) 40 central MED and municipal level staff trained.
5) MED decision makers have not assumed their responsibilities and have not developed action plans to carry out their role in child-centered basic education.	5) 5 p/d workshop executed by the LT U.S. or Third Country and the LT local-hire technicians assigned to Teacher Training in concert with their MED counterparts will train and transfer technology on child-centered basic education.	1993 Q-4	40 Central MED decision makers informed about the Project & content of Basic Education Guide; assume their duties and develop and implement related action plans.
6) Normal School administrators need training so they can fully assume their responsibilities and have not developed or submitted their action plans for execution of their role in child-centered basic education.	6) 5 p/d x Three U.S. or Third Country technicians with expertise in Normal School administration will train Normal School administrators and professors.	1993 Q-3/4	120 Normal School Administrators and Professors informed about the Project; content of Basic Education Guide; assume their duties and develop and implement related action plans.
7) Municipal Delegation Methodologists who supervise teachers at primary level require training on basic education to improve their performance.	7) 15 p/d x four U.S. or Third Country Technicians with expertise in classroom state of-the- art technical supervision will train Methodologists administrators and professors.	1993 Q-3/4	143 Methodologists, (1 per municipality) informed about the Project; content of Basic Education Guide; assume their duties and develop and implement related action plans.

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ANNEX 1
TABLE IV-2

8) Professionalization Center professors require training on basic education to improve their performance.	8) 15 p/d x three U.S. or 3rd Country experts on Normal School teaching will train professors.	1993 Q-3/4	80 Center professors (two per in-service teacher training center)informed about the Project; content of Basic Education Guide; assume their duties & develop & implement related action plans.
9) National Supervisors of teachers and methodologists at the primary level require training regarding basic education to improve their performance.	9) 10 p/d x two U.S. or 3rd Country primary level supervision experts will train National Supervisors.	1993 Q-4	9) 20 National Supervisors informed about the Project; content of Basic Education Guide; assume their duties & develop & implement related action plans.
10) Professionalization Center decision makers require training regarding basic education to improve their performance.	10) 15 p/d x two U.S. or Third Country experts on teacher accreditation will train Accreditation Center administrators.	1993 Q-4	10) 40 Accreditation Center administrators informed about the Project; Basic Education Guide; assume their duties & develop & implement related action plans.
11) Parents and community leaders require training regarding child-centered basic education so can contribute to educational process.	11) 15 p/d x nine U.S. or 3rd Country basic education will carry out training programs at local level.	1994 Q-1	11) 286 parents and community of Parent and Community leaders Primary School Associations "patronatos" (2 from each municipality) trained.
12) Practice teaching laboratory school teachers and Accreditation Center demonstration school teachers need training regarding child-centered basic education to improve their performance.	12) 15 p/d x four U.S. or 3rd Country experts on child-centered laboratory and demonstration schools will train classroom teachers.	1993 Q-4	12) 104 laboratory school and demonstration school teachers trained.
13) Selected MED staff need training on key aspects of basic education so they can improve their performance.	13) 11 U.S. or 3rd Country experts x 6 p/d per year x 5 years= 330 p/d experts will train a cadre of MED staff.	1993 thru 1997	13) 453 trainees x 5 years (143 certified teachers *; 143 non-certified teachers *; 143 methodologists *; 24 Normal School trained. * representatives from 143 municipalities.
14) Private School teachers selected for the master teacher role are not equipped to teach effectively primary level classroom teachers in grades 1-4 on how to utilize the revised thematic language arts curriculum and related didactic materials.	14) 5 p/d of training will be provided by curriculum development experts and their MED counterparts.	1995 Q-4	14) 120 master teachers from the private sector will be trained. They will develop related action plans for the national teacher workshops and for inclusion as Annex to the 1992-1998 Global Plan.
15) Primary school teachers in grades 1-4 do not have skills for basic education delivery in accordance with the revised thematic language arts curriculum.	15) 120 master teachers from private primary schools with required expertise and experience train all MED teachers in grades 1-4 staff (groups of 10 teachers will be trained each day by 120 master teachers at the municipal level over a 10-day period).	1996 Q-4	15) 12,000 primary teachers of grades 1-4 receive a one-day workshop related to child-centered basic education with emphasis on the revised thematic language arts curriculum and related didactic materials.
16) Private School teachers selected for the master teacher role are poorly equipped to perform this role. They need training on basic education and related skills to teach all primary level classroom teachers in grades 1-4 on use of revised mathematics curriculum and related didactic materials.	16) 5 p/d of training will be provided by curriculum development experts and their MED counterparts.	1996 Q-4	16) 120 master teachers from the private sector will be trained. They develop corresponding action plans for the national mathematics teacher workshops.
17) Primary school teachers in grades 1-4 lack skills to teach revised mathematics language arts curriculum.	17) 120 master teachers from private primary schools will train all MED teachers in grades 1-4 staff (groups of 10 teachers will be trained each day by 120 master teachers at the municipal level over a 10-day period).	1997 Q-1	17) 12,000 primary teachers teaching in grades 1-4 trained in a one-day workshop. Workshop focusses on on the revised thematic language arts curriculum and related didactic materials.

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TABLE IV-3
TECHNICAL ASSISTANCE PLAN
CURRICULUM DEVELOPMENT AND INSTRUCTIONAL MATERIALS

Under this Component, the Project will provide one LT advisor for up to 60 PMs and approximately 57 PMs of short-term technical assistance. The following Table summarizes the major problems the technical assistance funded by the Project will address. Numbers of PMs of TA do not necessarily add to the above totals as some experts will deal with more than one problem. The detailed budget (Annex 3) provides details of the specific TA area and the planned year for each technician.

MAJOR PROBLEM	TECHNICAL ASSISTANCE	Yr.& QTR	MAIN EFFECTS
1. Lack of coherent, relevant curriculum and lack of teacher guides for texts.	– one LT Curriculum Development Advisor; – Approx. 30 pms of ST experts in curriculum design, desktop publishing, formative evaluations, etc.	LT: 1992 to 1996; ST: staggered	– primary education curriculum developed, tested and used. – revision of teacher guides for existing and new textbooks. – determination of grade level competencies.
2. Lack of classroom materials and teaching aids.	– one LT Curriculum Development Advisor (same as above); – Approx. 25 pms of ST experts in Curric. design, instructional materials, formative evaluations, etc.	LT: 1992 to 1996; ST: staggered	– creation of new child-centerd instructional materials. – delivery of materials to first four grades. – development of curriculum frameworks for primary education. – development and testing of new materials in Language Arts, Mathematics, civics, etc.
3. staff with inadequate training in curriculum development.	– one LT Curriculum Development Advisor (same as above); – ST experts including most of the above to carry out training locally.	1992-1996. ST TA staggered thru LOP.	– courses in wordprocessing, Desktop Publishing, and low-cost materials production. – hands-on training in developing grade level competencies, curriculum frameworks, and instructional materials.
4. Lack of classroom resources.	– one LT Curriculum Development Advisor (same as above); – up to 5pms pms of ST experts plus some of the above.	1992-1996. ST TA staggered thru LOP.	– development and provision of classrrom resource kits. – development of teacher newsletter focused on use of instructional materials.
5. Lack of cost recovery mechanisms.	– one ST expert to work with MED counterparts in developing cost recovery, containment and other financing options.	1992/1993	– cost recovery, cost containment, and primary school financing strategy developed and implemented.

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Basic Education Project
Project Implementation Schedule

Activity	Year 1–Qtr. 1 2 3 4	Year 2–Qtr. 1 2 3 4	Year 3–Qtr. 1 2 3 4	Year 4–Qtr. 1 2 3 4	Year 5–Qtr. 1 2 3 4	Year 6–Qtr. 1 2 3 4	Year 7–Qtr 1 2 3 4
Overall Project Management							
Authorized PP	•						
Project Agreement signed	•						
PIO/T for RFP Issued	•						
RFP published in CBD	••						
Proposals received	•						
Institutional TA firm selected	•						
Work Plans Prepared		•					
INSTITUTIONAL STRENGTHENING							
PIO/C Issued	•						
LT TA to the MED		••					
Advisory Assistance to MED		>>>>>>>>	>>>>>>>>	>>>>>>>>	>>>>>>>>	>>>>>>>>	>>>>>>>>>
Executive Officer in Place		••					
Office Staff Hired		••					
1. Technical Assistance							
Job Classification Study		••		••			
Design Recruitmend and Selection Process		••					
Develop Performance Appraisal System		••					
Inventory Personnel Records		• • •					
Physical Record Storage		••					
Training Needs Assessment		•					
Develop Training Curriculum		•					
Develop Video Modules		••					
Design Workshops			•••				
Study MED Budget Cycle		••					
Budget Manual Prepared		•					
Design & Install Cash Accounting System		•• ••	•• •				
Design Receiving & Distribution		••• •	••				
Local TA/ Storage and Security Needs		••	•• •• ••				
Local TA/Security and Audit Options			••	••			
Planning Expert		••	•• ••				
Assess Evaluation Capacity		••	••				
Plan & Conduct Formative Evaluation		••	••				
Design Project Management System		••	••				

	Year 1–Qtr.	Year 2–Qtr.	Year 3–Qtr.	Year 4–Qtr.	Year 5–Qtr.	Year 6–Qtr.	Year 7–Qtr
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Consultative Process for Nationa Ed. Counc		>>>>>>>>	>>>>>>>>	>>>>>>>>	>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>
Observational Visits		•	•	•			
Study on Municipal Imp. Capacity		>>>>>>>>	>>>>>>>>	>>>>>>>>			
Local T/A Municipal Revenue Study		••					
Local T/A Policies and Procedures Manual		••					
2. Training							
Executive Training			••				
MED Management System Training		•• ••	•• ••				
New Systems Training			•• ••	•• ••			
Workshops		>>	>>	>>	>>	>>	
Management Training Courses		• •	• •	• •			
Performance Appraisal Workshops			• • •	• • •	• • •	• • •	
U.S. & 3rd Country Training		>>>>>>>>	>>>>>>>>	>>>>>>>>	>>>>>>>>	>>>>>>>>	
Municipal Training Workshops			>>>>>>>>	>>>>>>>>	>>>>>>>>	>>>>>>>>	
3. Commodities							
Furniture & Equipment Ordered		•					
Furniture & Equipment Operational		••					
Computers Ordered			••				
Computers Operational		••		••			
Vehicles & ATV'S Ordered		•	••				
Vehicles Operational		•					
Bikes Operational			••				
Municipal Office Equipment Ordered		•	••				
Municipal Office Equipment Installed			••				
Municipal Computers Ordered			••				
Municipal Computers Installed				••			
TEACHER TRAINING							
LT TA		>>>>>	>>>>>	>>>>>	>>>>>	>>>>>	
Teacher Training and Primary Sections form Training Coordination Commitee		••					
Training Coordination Committee		••					
names member from each section to the Donor Coordination							
ST–TA assists MED develop Basic Education Guide		••					

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	Year 1–Qtr.	Year 2–Qtr.	Year 3–Qtr.	Year 4–Qtr.	Year 5–Qtr.	Year 6–Qtr.	Year 7–Qtr
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
LT–TA works with MED counterparts to develop 1992–1998 Global Plan and 1992 Annual Plan		••					
Basic Education Guide distributed to target population		••					
Training Seminar No.1 implemented: 40 Central MED decision makers.		••					
Training Seminar No.2 implemented: 120 Normal School professors and administrators		••					
Training Seminar No.3 implemented: 143 Methodologists.		••					
Training Seminar No.4 implemented:		••					
Training Seminar No.5 implemented; 20 National Supervisors		••					
Training Seminar No.6 implemented: 40 inservice teacher training center trainers		••					
Training Seminar No.7 implemented: 286 parents and community leaders (two from each municipality)		••					

	Year 1-Qtr.	Year 2-Qtr.	Year 3-Qtr.	Year 4-Qtr.	Year 5-Qtr.	Year 6-Qtr.	Year 7-Qtr
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
12 practice teaching schools selected near 12 Normal School sites (two classrooms per school)		••					
40 demonstration schools selected near certification centers at municipal level.		••					
12 libraries operational at 12 Normal Schools		•					
40 libraries operational at 12 Normal Schools		•					
Computers for planning and installed and operational at 12 Normal Schools		••					
Normal School Equipment installed at12 Normal Schools		••					
40 demonstration schools near teacher certification centers equipped.		••					
Training Seminar No.8 implemented: 24 Normal School professors, 24 practice teacher trainers, 80 demonstration school teachers		••					
Nationwide follow up visits to primary schools for the purpose of ascertaining that the target population is utilizing acquired skills toward the improvement of basic education.		••	••	••	••	••	
National Seminars on basic education for 143 certified teachers, 143 non-certified teachers, and 143 methodologists		••	••	••	••	••	
50 GON representatives participate in international MED think tanks.		••	••				

	Year 1–Qtr.	Year 2–Qtr.	Year 3–Qtr.	Year 4–Qtr.	Year 5–Qtr.	Year 6–Qtr.	Year 7–Qtr	Year 8–Qtr
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Annual Component Plans developed and approved		••	••	••	••	••		
C–2 Contractor personnel and counterparts prepare 1995 Global Formative Evalutation Plan and update annually after annual formative evaluation report is submitted and approved by project decision makers		••	••	••	••	••		
C–2 Contractor personnel and MED couterparts participate in mid–term and final project evaluation			••			••		
Procurement Specialist provides ST–TA for development of generic specificaitons and corresponding procurement instruments		• ••						
Curriculum Development and Instructional Materials								
Long Term TA		>>>>>>>>>>>	>>>>>>>>>>>	>>>>>>>>>>>	>>>>>>>>>>>	>>>>>>>>>>		
Establish Curriculum Development Commit		••						
Order Textbooks/Inst. Mats.	••	••	••	••	••	••	••	
Development Teacher Guides for existing texts		•• •• ••						
Work Plans Prepared		>>>>>>>>>>>	>>>>>>>>>>>	>>>>>>>>>>>	>>>>>>>>>>>	>>>>>>>>>>	>>>>>>	
Competencies		>>>>>	>>>>>	>>>>>	>>>>>	>>>>>>		
Development of General Guide								
Development Curriculum Mastery Plan		•• •• ••						
Development of Curriculum Framework		•• •• ••						

	Year 1–Qtr.	Year 2–Qtr.	Year 3–Qtr.	Year 4–Qtr.	Year 5–Qtr.	Year 6–Qtr.	Year 7–Qtr	Year 8–Qtr
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Pilot Testing + formative Education plans		•• •• ••						
Workshops carries out		•• ••	•• ••					
Select Pilot schools for testing materials		••	••					
Technical Train Staff for Evaluation Unit			•• •• ••					
Train of Curricular Development Unit on International Bidding		••						
Development and Test Mathematics and Civic Materials for Grades 1–4			•• •• •• ••		•• •• •• ••	•• •• •• ••		
Development + test Social Sciences Materials							•• •• •• ••	
Develop and Implement Cost and Instructional Materials Recovery Mechanism		>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>
Train in the U.S 6 people from Curriculum Development Unit					•• ••			
Carry out Students Assessments				>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	
Produce and Distribute Newsletters			>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>			
Provide Classroom Resourses	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>
Project Evaluation			••		•• ••	••	•• ••	
Audits			••		••			••

Curriculum Development
Illustrative Implementation Plan
For New Curriculum Module

For illustrative purposes, assuming that each Language Arts Module would provide approximately one month of instructional material, the schedule would look like this:

Month	1 Mod	2	3	4	5	6	7	8	9	10	11	12	
Develop	I	I	II	III	IV	V	VI	VII	VIII	IX	Begin new subject		
Print			I	II	III	IV	V	VI	VII	VIII	IX		
Distribute/ Orient			I	II	III	IV	V	VI	VII	VIII	IX		
Trial				I	II	III	IV	V	VI	VII	VIII	IX	
Use info from trial of...					I	II	III	IV	V	VI	VII	VIII	
Revise										VI	VIII	Write Specs	
Summative Achievements Tests												S.A.T	
(S.A.T)	Dec/ Jan		Feb	///////	///////	//////	School	Year	///////	///////	///////	Nov	

Basic Education Project
Table VI-1
Preliminary Budget Estimate by Year and Component

(in US $000s)

Component	Year 1	2	3	4	5	6	Total	Percent
MED Instit. Strengthening	725	2,725	1,278	792	605	735	6,859	23%
Teacher Training	479	1,879	720	674	964	729	5,444	18%
Curriculum Development	2,371	2,890	2,611	2,636	2,401	1,908	14,817	49%
Other Costs of US TA Firm	280	292	294	307	289	238	1,700	6%
USAID Project Coord.– Local Hire	18	35	37	39	41	43	211	1%
Unprogrammed Short-term TA	128	241					369	1%
Evaluations & Audits	0	200	50	150	50	150	600	2%
Total	4,000	8,262	4,989	4,598	4,350	3,801	30,000	100%
Percent	13%	28%	17%	15%	14%	13%	100%	

Basic Education Project
Table VI-2
Preliminary Budget Estimate by Category and Component

(in US $000s)

Category	Instit. Strenght. FX	Instit. Strenght. LC	Teacher Training FX	Teacher Training LC	Curric. Developmt. FX	Curric. Developmt. LC	LOP Total FX	LOP Total LC	Grand Total	Percent
Technical Assistance	3,082	330	2,193	626	2,391	422	7,667	1,377	9,044	30%
Training	1,250	364	915	605	55	0	2,220	969	3,189	11%
Commodities	1,831	0	1,104	0	11,949	0	14,885	0	14,885	50%
Other Costs, including local Personnel & Office Space, utils.,etc.							1,387	313	1,700	6%
Unprogrammed Short-term TA							369	0	369	1%
USAID/N Project Coordinator							0	211	211	1%
Evaluations & Audits							600	0	600	2%
Total	6,163	694	4,213	1,231	14,395	422	27,127	2,870	29,997	100%
Percent	21%	2%	14%	4%	48%	1%	90%	10%	100%	

Note: Numbers do not add precisely to $30,000 due to roundings.

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Basic Education Project
Table VI-3
MED Institutional Strengthening Component
Estimated Budget
(In US$000s)

Category	Base Unit Cost	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Total All Years	Currency	
		No.	Total	No.	Total	No.	Total	No.	Total	No.	Total	No.	Total		FX	Local
A. Technical Assistance (Intern.)																
Long-Term (Educ. Adm. & COP)=72 PMs																
Salary (Equiv. FS-2/10 in 1992)	$68	1	68	1	71	1	75	1	79	1	83	1	87	463	463	0
Fringe Benefits (30 % of salary)	30%		20		21		22		24		25		26	138	138	0
U.S. Firm Overhead(sal.+fringe)	80%		71		74		78		82		86		90	480	480	0
Post Differential (.20)	20%		14		14		15		16		17		17	92	92	0
Allowances	$38		38		40		42		44		46		48	258	258	0
First Year (ATP) Costs	48		48											48	48	0
End of tour costs	22												22	22	22	
Other Travel & Transportation:																
R&R and H.L.(4 RTs @ $1,500 ea.)	$1.5			4	6	4	6	4	6	4	6	4	6	30	30	0
Miscellaneous					2		2		2		2		2	10	10	0
Sub-total LT assistance			259		229		239		252		264		298	1,542	1,542	0
Short-Term:																
S.T. Technical Assistance=77 PMs:																
Human Resources Specialist (8pms)	$20	5	100	3	60									160	160	0
Record Storage Specialist(4pms)	$20			4	80									80	80	0
Training Specialist(11pms)	$20	3	60	3	60	3	60	2	40					220	220	0
Budgeting Specialist(3pms)	$20			3	60									60	60	0
Accounting Specialist(3pms)	$20					3	60							60	60	0
Logistics and Storage(6pms)	$20			6	120									120	120	0
Planning and Policy Anal.(4pms)	$20			4	80									80	80	0
Evaluation Expert(4pms)	$20			4	80									80	80	0
Public Administration(14 pms)	$20	4	80	2	40	2	40	2	40	2	40	2	40	280	280	0
Organization Specialist(4pms)	$20	4	80											80	80	0
MANAGMT INFO. SYSTEM:Design(9 pms	$20	4	80	3	60	2	40							180	180	0
MIS:Promotion & Applications(7pms)	$20			1	20	1	20	2	40	2	40	1	20	140	140	0
Local Technical Assistance:																
Software Development	$1			140	140	20	20	5	5					165	0	165
Municipalization Study (30 days at $100/day)	$3	1	3											3		
Municipal Revenue Study (30 days at $10^/day)	$3	1	3											3	0	3
Policies-Procedures Spec.(per yr)	$24	0.5	12											12	0	12
Logistics & Storage Spec-per year	$24	1	24											24	0	24
Security Specialist(per year)	$24	0.5	12											12	0	12
Contingency & Inflat.(5% per year)			0		40		24		19		16		15	114	0	114
Sub-total ST assistance			454		840		264		144		96		75	1,873	1,540	330
Sub-total Technical Assistance			713		1,069		503		396		360		373	3,415	3,082	330

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Basic Education Project
Table VI-3, Page 2

Category	Base Unit Cost	Year 1 No.	Year 1 Total	Year 2 No.	Year 2 Total	Year 3 No.	Year 3 Total	Year 4 No.	Year 4 Total	Year 5 No.	Year 5 Total	Year 6 No.	Year 6 Total	Total All Years	Currency FX	Currency Local
B. Training																
Local Seminars																
MIS End-User Courses(per course)	0.5			30	15	20	10	10	5	10	5			35	0	35
MIS:Specialized Data Base Techqs. (per course)	1			6	6									6	0	6
National Ed. Council Retreats (2 days x 30 parts at $50/day)	3	1	3	1	3	1	3	1	3	1	3	1	3	18	0	18
Clerical Workshops (15 days x 10 parts at $50/day)	7.5			4	30	4	30	2	15					75	0	75
Management Training (10 days x 15 parts at $50/day)	7.5			2	15	2	15	2	15					45	0	45
Performance Appraisal ((2 days x 10 parts at $50/day)	1					5	5	5	5	5	5	5	5	20	0	20
Municipal Training (5 days x 30 parts at $50/day)	7.5					6	45	6	45	6	45	4	30	165	0	165
U.S./3rd country(6 weeks x $1000, incl. RT)																
General Administraton	6			40	240	40	240							480	480	0
Job Classification	6			6	36	6	36							72	72	0
Planning and Analysis	6			13	78	12	72							150	150	0
Project Management	6			13	78	12	72							150	150	0
Budget and Control	6			6	36	6	36							72	72	0
Observational Visits (1 week x 10 parts at $3,000, incl. RT)	30			1	30	1	30	1	30	1	30	1	30	150	150	0
MIS Observation Visits (Central America, per trip)	3	3	9	3	9	2	6	2	6	1	3			33	33	0
Contingency & inflat.(5% per year)	0		0		29		60		19		18		17	143	143	0
Sub-total Training			12		604.8		660		143		109		85	1,614	1,250	364

Basic Education Project
Table VI-3, Page 3

Category	Base Unit Cost	Year 1 No.	Year 1 Total	Year 2 No.	Year 2 Total	Year 3 No.	Year 3 Total	Year 4 No.	Year 4 Total	Year 5 No.	Year 5 Total	Year 6 No.	Year 6 Total	Total All Years	Currency FX	Currency Local
C. Commodities (see note below)*																
MIS: Hardware/Software(see Automation Support Annex 8.d.)																
MED Departament Offices	8			19	152									152	152	0
Central MED PC's	4.7			24	113									113	113	0
Network server	22			1	22									22	22	0
Other equipment/Software	74			1	74									74	74	0
Supplies(see annex)	1			45	45	52	52	60	60	60	60	60	60	277	277	0
Maintenance/Installation (see annex)	1			45	45	45	45	153	153	45	45	153	153	441	441	0
Publications and printing	1			7	7	7	7	8	8	8	8	8	8	0		
Office Equipment														38	38	0
Photocopiers	1			26	26									0		
VCR, Monitor, Camera, Edit. Equip.	2			4	8									26	26	0
Electronic Calculators	0.2			15	3									8	8	0
Fax Machines	0.5			18	9									3	3	0
Radio Base, 16 links	5			1	5									9	9	0
Vehicles(4x4)-1 for MED Project Coord. & 16 for nat. supervisors and departmental delegations.	26			17	442									5	5	0
Mountain bikes(w/locks)	0.5			100	50									0		
Contingency & Inflat.(5% per year)	0		0		50		10		33		23		55	442	442	0
														50	50	0
			0		1,051		114		254		136		276	171	171	0
Total MED Institutional Strengthening			725		2,725		1,278		792		605		735	1,831	1,831	0
														6,859	6,163	694

* The Unit cost for commodities includes up to 20 % for freight, insurance, and procurement services fees.

Basic Education Project
Table VI-4, Page 1
Teacher Training
Estimated Budget
(in US$000s)

Category	Base Unit Cost	Year 1 No.	Year 1 Total	Year 2 No.	Year 2 Total	Year 3 No.	Year 3 Total	Year 4 No.	Year 4 Total	Year 5 No.	Year 5 Total	Year 6 No.	Year 6 Total	Total All Years	Currency FX	Currency Local
A. Technical Assistance																
Long-Term (Teacher Training Expert)=60PMs																
Salary (Equiv. FS-2/10 in 1992)	$68	1	68	1	71	1	75	1	79	1	83			378	378	0
Fringe Benefits (30 % of salary)	30%		20		21		22		24		25			112	112	0
U.S. Firm Overhead(sal.+fringe)	80%		71		74		78		82		86			390	390	0
Post Differential (.20)	20%		14		14		15		16		17			75	75	0
Allowances	$38		38		40		42		44		46			210	210	0
First Year (ATP) Costs	48		48											48	48	0
End of tour costs	22															
Other Travel & Transportation:																0
R&R and H.L.(4 RTs @ $1,500 ea.)	1.5			4	6	4	6	4	6	4	6			24	24	0
Miscellaneous					2		2		2		2			8	8	0
Sub-total LT assistance			259		229		239		252		264		0	1,243	1,243	0
Short-Term:																
S.T. Technical Assistance=35 PMs:																
Develop Basic Educ. Guide(3.5pms)	20	3.5	70											70	70	0
Deliver Basic Educ.Guide(4pms)	20	4	80											80	80	0
Training Seminars 1 – 7 (12.5pms)	20	1	20	5	100	6.5	130							250	250	0
National Seminars (15 pms)	10			11	110	11	110	11	110	11	110	11	110	550	550	0
(6 person days incl. RT)-Annex 3A																
Local Technical Assistance																
Guide Use Survey	86			1	86	1	86	1	86	1	86	1	86	430	0	430
(143 site at $600)																
Selection of 12 Core & 40 Demonstration																
School(52 sites at $600)	31	1	31											31	0	31
Contingency & Inflat.(5% per year)	0		0		15		33		29		39		49	165	0	165
Sub-total ST assistance			201		311		359		225		235		245	1,576	950	626
Sub-total Technical Assistance			460		540		598		477		499		245	2,819	2,193	626

Teacher Training Component (Table VI-4 – Page 2)

Category	Base Unit Cost	Year 1 No.	Year 1 Total	Year 2 No.	Year 2 Total	Year 3 No.	Year 3 Total	Year 4 No.	Year 4 Total	Year 5 No.	Year 5 Total	Year 6 No.	Year 6 Total	Total All Years	Currency FX	Currency Local
B. Training																
Local Seminars																
Training Seminar 1 (5 days x 40 parts at $20/day)	4	1	4											4	0	4
Training Seminar 2 (10 days x 120 parts at $20/day)	24			1	24									24	0	24
Training Seminar 3 (10 days x 143 parts at $20/day)	29			1	29									29	0	29
Training Seminar 4 (5 days x 20 parts at $20/day)	2			1	2									2	0	2
Training Seminar 5 (10 days x 40 parts at $20/day)	8			1	8									8	0	8
Training Seminar 6 (10 days x 286 parts at $20/day)	57			1	57									57	0	57
Training Seminar 7 (10 days x 128 parts at $20/day)	26			1	26									26	0	26
National Seminars (10 days x 453 parts at $20/day)	91			1	91	1	91	1	91	1	91	1	91	455	0	455
New Materials Teacher Training: Language, Math (1 day x 12,000 parts at $20)	240									1	240	1	240	480	480	0
New Materials Trainers (10 days x 120 trainers at $30/day)	36									1	36	1	36	72	72	0
Invitation Travel (15 days x 10 parts at $200/day; incl. RT)	30			3	90			2	60					150	150	0
Contingency & Inflat.(5% per year)	0		0		16		9		23		73		92	213	213	0
Sub-total Training			4		343		100		174		440		459	1,520	915	605
C. Commodities																
Seminar Supplies($10/participant)	0.01			1310	13	453	5	453	5	453	5	453	5	33	33	0
Basic Education Guide (20000 units at $20)	400			1	400									400	400	0
Demonstration school supplies (104 classrooms at $5,000)	520			1	520									520	520	0
Incentive Certificates (3,753 recipients at $4)	15	1	15	1	15	1	15	1	15	1	15	1	15	90	90	0
Contingency & Inflat.(5% per year)	0		0		47		2		3		4		5	61	61	0
Sub-total Commodities			15		995		22		23		24		25	1,104	1,104	0
Total Teacher Training			479		1,879		720		674		964		729	5,444	4,213	1,231

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Basic Education Project
Table VI-5
Curriculum Development & Instructional Materials
Estimated Budget
(in US$000s)

Category	Base Unit Cost	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Total All Years	Currency	
		No.	Total	No.	Total	No.	Total	No.	Total	No.	Total	No.	Total		FX	Local
A. Technical Assistance																
Long-Term (Curric. Devpt. Expert)=60 PMS																
Salary (Equiv. FS-2/10 in 1992)	$68	1	68	1	71	1	75	1	79	1	83			376	376	0
Fringe Benefits (30 % of salary)	30%		20		21		22		24		25			112	112	0
U.S. Firm Overhead(sal.+fringe)	80%		71		74		78		82		86			390	390	0
Post Differential (.20)	20%		14		14		15		16		17			75	75	0
Allowances	$38		38		40		42		44		46			210	210	0
First Year (ATP) Costs	48		48											48	48	0
End of tour costs	22															
Other Travel & Transportation:																0
R&R and H.L.(4 RTs @ $1,500 ea.)	1.5			4	6	4	6	4	6	4	6	4	6	30	30	0
Miscellaneous					2		2		2		2		2	10	10	0
Sub-total LT assistance			259		229		239		252		264		8	1,251	1,251	0
Short-Term																
S.T. Technical Assistance=57 PMs:																
School Finance (3 pms)	$20	3	60											60	60	0
Commodity Logistics & Proc.(5 pms)	$20	3	60	2	40									100	100	0
Curriculum Design (4 pms)	$20	4	80											80	80	0
Desktop Publishing (1 pm)	$20	1	20											20	20	0
Math Curric. design (7 pms)	$20			1	20			6	120					140	140	0
Science Curric. design (1 pm)	$20			1	20									20	20	0
Social Sciences Cur. design(1pm)	$20			1	20									20	20	0
Civics Curric. design (7 pms)	$20			1	20					6	120			140	140	0
Evaluation (5 pms)	$20			1	20	1	20	1	20	1	20	1	20	100	100	0
Newsletter (3 pms)	$20			1	20	1	20	1	20					60	60	0
Formative Evaluation (12 pms)	$20					9	180	2	40	1	20			240	240	0
Bilingual Education (4 pms)	$20					2	40	2	40					80	80	0
Repetition Study (4 pms)	$20	4	80											80	80	
Local Technical Assistance																
Repetition Study	32	1	32											32	0	32
Ethnographic Study	100					1	100							100	0	100
Pre-School Study	1							1	150					150	0	150
Contingency & Inflat.(5% per year)	0		0		8		36		59		32		5	140	0	140
Sub-total ST assistance			332		168		396		449		192		25	1,562	1,140	422
Sub-total Technical Assistance			591		397		635		700		456		33	2,813	2,391	422

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Curriculum Development Component (Table VI– 5, Page 2)

Category	Base Unit Cost	Year 1 No.	Year 1 Total	Year 2 No.	Year 2 Total	Year 3 No.	Year 3 Total	Year 4 No.	Year 4 Total	Year 5 No.	Year 5 Total	Year 6 No.	Year 6 Total	Total All Years	Currency FX	Currency Local
B. Training																
Local Seminars																
(15 days x 25 parts at $50/day)	19	1	19											19	19	0
US/3rd country(6 weeks at $1000 incl. RT)																
Text Procurement	6	6	36											36	36	0
Inflation factor of 5% per year			0											0	0	0
Sub–total Training			55											55	55	0
C. Commodities(see note below)*																
Computers (Printers; LAN; Software)																
Personal Computer Workstations	5	5	25											25	25	0
Desk Top Publishing																
Computers	7.5			2	15									15	15	0
Printers	2.5			2	5									5	5	0
Scanners	2.5			2	5									5	5	0
Duplication	2.5			2	5									5	5	0
Binding	2			1	2									2	2	0
Vehicles(4x4)–1 each to support	26			2	52									52	52	0
the Curric. Dvpt. & related T. Trng. Offices.																
Office Equipment																
Desks and Chairs	0.5			10	5									5	5	0
Computer Stands	0.5			7	3.5									3.5	3.5	0
Files	0.25			8	2									2	2	0
Phones	0.1			5	0.5									0.5	0.5	0
Photocopiers	1			2	2									2	2	0
Instructional Materials																
Texts(see annex)			1,700		1,782		1,451		1,523		1,621		1,500	9,577	9,577	0
Blackboards(1000 School)	0.05			500	25	500	25							50	50	0
Desks & Chairs for Demo schools	80			4	320	4	320	2	160					800	800	0
(100 rooms x 40 desks at $20)–demo sch.																
Resource Kits	0.05			3,000	150									150	150	0
Inflation factor of 5% per year			0		119		180		252		324		375	1,250	1,250	0
Sub–total Commodities			1,725		2,493		1,976		1,935		1,945		1,875	11,949	11,943	0
Total Curriculum Dev. & Instruct. Materials			2,371		2,890		2,611		2,636		2,401		1,908	14,817	14,395	422

* The Unit cost for commodities includes up to 20 % for freight, insurance, and procurement services fees.

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Basic Education Project
Table VI-6
Other Costs
Estimated Budget
(in US$000s)

Category	Base Unit Cost	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Total All Years	Currency	
		No.	Total	No.	Total	No.	Total	No.	Total	No.	Total	No.	Total		FX	Local
A. Operating Costs of U.S. Team																
U.S. Personnel																
Personal Service Contractor	140	0.5	70	1	140	1	140	1	140	1	140	1	140	770	770	
U.S. Coordinator(1/2 time)	50	0.5	25	1	50	1	50	1	50	1	50	1	50	275	275	
Local Personnel:														0		
Executive assistant	26	0.5	13	1	26	1	26	1	26		0			91		91
Accountant	14	0.5	7	1	14	1	14	1	14	1	14			63		63
Secretaries(includes 1 for the MED Project Coordinator)	8	0.5	4	3	24	3	24	3	24	3	24			100		100
Drivers	4	0.5	2	2	8	2	8	2	8	2	8			34		34
Office Materials/equipment:																
Desk top computers	7	6	42											42	42	
Portable Computers	3.8			3	11.4									11	11.4	
Desks and deskets	0.5	10	5											5	5	
Misc.(fax, phones)	3	1	3											3	3	
Vehicles	26	4	104											104	104	
Office Maintenance/supplies	1	1	1	1	1	1	1	1	1	1	1			5		5
Fuel and Maintenance	1	4	4	4	4	4	4	4	4	4	4			20		20
Inflation factor of 5% per year	0		0		14		27		40		48		48	176	176	
Sub-total Operating Costs			280		292		294		307		289.2		238	1,700	1,387	313
B. USAID Local Project Coordinator	35	0.5	18	1	35	1	37	1	39	1	41	1	43	211	0	211
C. Unprogrammed short-term TA			128		241									369	369	
D. Evaluations and Audits																
1. Evaluations	150	0	0	1	150	0	0	1	150			1	150	450	450	
2. Audits	50			1	50	1	50	0	0	1	50			150	150	
Sub-total Evaluations & Audits			0		200		50		150		50		150	600	600	0
Total Other Costs			428		768		380		498		380		430	2,880	2,356	524
Grand Total All Components			4,000		8,262		4,989		4,598		4,350		3,801	30,000	27,127	2,870

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Basic Education Project
Table VI-7
Illustrative Costing of Major Project Outputs
(in US$000s)

	Amount
1. MED Institutional Strengthening	
— Training of at least 600 MED employees.	1,614
— Overall strenghening of Human Resources, Planning, Acctg., & Training Offices & devpt. of operating systems.	2,956
— Management Information System established and people trained in its use	1,297
— Consultative mechanism to review and formulate educational policies	80
— Studies, Evaluations, audits and other costs	913
Subtotal	6,859
2. Teacher Training	
— Basic Education Guide Developed & 20,000 copies distributed.	550
— A Master Teacher Training Program established	1,578
— 40 Primary education demonstration schools established.	520
— 12,000 primary school teachers trained.	2,572
— Evaluations and Audits	200
Subtotal	5,418
3. Curriculum Development	
— primary education curriculum developed and up to 10,000 teachers trained on new curriculum.	2,391
— Textbooks and new instructional materials devpt. & distrib.	9,577
— 2,500 learning kits delivered.	150
— Studies conducted (repetition, ethnographic, pre-school)	422
— Evaluations, Audits and other costs	2,277
Subtotal	14,817
Overall Project Implementation Costs	2,906
GRAND TOTAL	30,000

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Basic Education Project
Table VI-7A
Government of Nicaragua Contribution
Estimated Budget
(In US Dollars)

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Total All Years
I. MED Strengthening								
A. Counterpart Personnel:								
— Directors of Planning, Education, Admin., & Supervision–approx. 35% of their time (salary 7,720 cords/mon. or US$1,544 ea.)	25,939	25,939	25,939	25,939	25,939	25,939	25,939	181,574
— Office Directors: Informática, Curriculo, Capacitación Docente, Director Primaria, Finanzas, Recursos Humanos, Servicios Generales, Proyectos, Educación Básica – approx. 40% of their time (Salary 5,180 cords/mon or (US$1,036 per month each)	44,755	44,755	44,755	44,755	44,755	44,755	44,755	313,288
— MIS (Informática personnel): 10 persons 100 % of their time (salary 1,900 cords/month or US$380 each)	45,600	45,600	45,600	45,600	45,600	45,600	45,600	319,200
— Finanzas: 34 persons–25% of their time (salary 987 cords/month or US$197)	20,094	20,094	20,094	20,094	20,094	20,094	20,094	140,658
— Recursos Humanos: 27 persons–25% of their time (salary 987 cords/month or US$197 ea.)	15,957	15,957	15,957	15,957	15,957	15,957	15,957	111,699
— Almacén: 1 person @ 987 cords/month or US$197; 50 % of time	1,182	1,182	1,182	1,182	1,182	1,182	1,182	8,274
— Directores de Cabecera Municipal: 19 directors — about 2 months of training/workshops, etc. @ 1,545 cords/month or US$309/month								11,742
B. Office Space Approx. 40 Sq.Mt @150 Cords/sm per month(US$30/SMper month)	14,400	14,400	14,400	14,400	14,400	14,400	14,400	100,800
2. Teacher Training								
A. Counterpart Personnel								
— Formación Docente: 16 persons 50 % of their time (salary 1,320 cords/month or US$264 each)	25,344	25,344	25,344	25,344	25,344	25,344	25,344	177,408
— Educación Primaria: 20 persons 40% of their time (salary 1,320 cords/month or US$264 each)	25,344	25,344	25,344	25,344	25,344	25,344	25,344	177,408
— Salaries of teachers while in training: (12,000 teachers, average training of 3 months each, average salary of 660 cords/mo. or US$132/month)								4,752,000
— Salaries of supervisors while in training: (19 supervisors, average training of 2 months each, average salary of 2,640 cords/mo. or US$528/month)								20,064
B. Office Space Approx. 40 Sq.Mt @150 Cords/sm per month(US$30/SMper month)	14,400	14,400	14,400	14,400	14,400	14,400	14,400	100,800

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Total All Years
3. Curriculum Development A. Counterpart Personnel — Oficina Materiales Didácticos: 16 persons 50% of their time (salary 1,320 cords/mo. or US$264 each)	25,344	25,344	25,344	25,344	25,344	25,344	25,344	177,408
B. Office Space Approx. 100 Sq.Mt @150 Cords/sm per month(US$30/SMper month)	36,000	36,000	36,000	36,000	36,000	36,000	36,000	252,000
4. Office space–ST Advisors Approx. 40 Sq.Mt @150 Cords/sm per month(US$30/SMper month)	14,400	14,400	14,400	14,400	14,400	14,400	14,400	100,800
5. Conference Room for TEAM Approx. 30 Sq.Mt @150 Cords/sm per month(US$30/SMper month)	10,800	10,800	10,800	10,800	10,800	10,800	10,800	75,600
6. Purchase of 60 motorcycles for local level supervisors at approx. US$1,667 each.		100,000						100,000
7. Other Logistic Support: fuel on basis of 80 gallons diesel/month @ 6 cords/gallon or US$1.20 for 19 vehicles	21,888	21,888	21,888	21,888	21,888	21,888	21,888	153,216
8. Other Logistic Support: fuel on basis of 20 gallons gasoline/month @ 10 cords/gallon or US$2.00 for 60 motorcycles		28,800	28,800	28,800	28,800	28,800	28,800	172,800
Total	341,447	470,247	370,247	370,247	370,247	370,247	370,247	$7,446,738

Note: Salaries include 32% for fringe benefits.
Other local contributions to the Project include community labor for school maintenance, municipal personnel, and miscellaneous logistic support such as vehicle maintenance and office supplies which cannot be quantified now.
The MED will also use around $1 million per year generated from the sale of books.

Teacher Training Component
Detailed Budget Annex

Below is information which may be helpful in cleaning up the teacher training portion of the budget.

1. TA for Development of Basic Education Guide:
   10 p/d x 7 technicians x $250 per day = US$17,500
   Per diem @ $166 x 12 days x 7 technicians = US$13,944
   RT air fare U.S/Nicaragua @ $650 x 7 technicians = US$4,550
   DBA @ .04 x $17,500 = US$700
   Local travel @ $20 per day x 10 days x 7 technicians = US$1,400
   Total: US$38,094

2. Printing of 20,000 Basic Education Guides:
   20,000 guides x 200 pages each x 5 cents per page = US$200,000
   20,000 guides x $2.00 for distribution/logistics = US$40,000
   Total: US$240,000

3. 100 p/d of procurement technical assistance:
   100 p/d x $150 per day = US$15,000
   Per diem @ $166 x 140 days = US$23,240
   RT air fare U.S/Nicaragua @ 650 x four trips = US$2,600
   DBA @ .04 x $15,000 = US$600
   Local ravel @ $20 per day x 100 days = US$2,000
   Total: US$43,440

4. ST-Ta for assisting in development of C-2 implementation strategy:
   15 p/d x 2 technicians x $250 per day = US$7,500
   Per diem @ $166 x 21 days x 2 technicians = US$6,972
   RT air fare U.S/Nicaragua @ $650 x 2 technicians = US$1,300
   DBA @ .04 x $7,500 = US$300
   Local travel @ $20 per day x 15 days x 2 technicians = US$600
   Total: US$16,672

5. Long-term Teacher Training Specialist:
   salary: 60 p/m x $5,500 per month = US$330,000
   Benefits: 28% of $330,000 = US$92,400
   Shipment of HHE to and from Nicaragua: US$18,000
   Shipment of PVO to and from Nicaragua: US$5,000
   Temporary housing at beginning and end of contract: US$3,500
   Permanent housing @ $1,600 x 59 p/m = US$94,400
   DBA @ .04 x $330,000 = US$13,200
   Local travel (per diem) @ $50 p/d x 300 days = US$15,000
   RT air fare for mobilization and repatriation = US$1,300
   R&R x 2 x $650 = US$1,300
   Home leave = US$650
   Total: US$574,750

7. Workshop for 40 Central MED and Municipal level decision makers:
   40 participants x 6 days per diem x $15 per day = US$3,600
   40 participants x RT bus fare to workshop site $10 = US$400
   Total: US$4,000

8. Workshop for Normal School Administrators and Professors:
   15 p/d x 3 technicians x $250 p/d = US$11,250
   Per diem @ $166 x 21 days x 3 technicians = US$10,458
   RT air fare U.S./Nicaragua @ $650 x 3 technicians = US$1,950
   DBA @ .04 x $11,250 = US$450
   Local travel @ $20 per day x 15 days x 2 technicians = US$600
   Total: US$24,708

9. Workshop for 120 Normal School Administrators and Professors:
   120 participants x 11 days per diem x $15 = US$19,800
   120 participants x RT bus fare to workshop site @ $10 =US$1,200
   Total: US$21,000

10. Workshop for 143 Methodologists:
    15 p/d x 4 technicians x $250 p/d = US$15,000
    Per diem @ $166 x 21 days x 4 technicians = US$13,944
    RT air fare U.S./Nicaragua @ $650 x 4 technicians = US$2,600
    DBA @ .04 x $15,000 = US$600
    Local travel @ $20 per day x 15 days x technicians = US$1,200
    Total: US$33,344

11. Workshop for 143 Methodologists:
    143 participants x 11 days per diem x $15 = US$ 23,595
    143 participants x RT bus fare to workshop site @ $10 =US$1,430
    Total: US$25,025

12. Workshop for 80 Teacher Training Center Professors:
    15 p/d x 3 technicians x $250 p/d = US$11,250
    Per diem @ $166 x 21 days x 3 technicians = US$10,458
    RT air fare U.S./Nicaragua @ $650 x 3 technicians = US$1,950
    DBA @ .04 x $11,250 = US$450
    Local travel @ $250 per day x 15 days x 2 technicians = US$600
    Total: US$24,708

13. Workshop for 80 Teacher Training Center Professors:
    80 participants x 11 days per diem x $15 = US$13,200
    80 participants x RT bus fare to workshop site @ $10 = US$800
    Total: US$14,000

14. Workshop for 20 National Supervisors:
    10 p/d x 2 technicians x $250 p/d = US$5,000
    Per diem @ $166 x 12 days x 2 technicians = US$3,984
    RT air fare U.S./Nicaragua @ $650 x 2 technicians = US$1,300
    DBA @ .04 x 5,000 = US$200

Local travel @ $20 per day x 10 days x 2 technicians = US$400
Total: US$10,884

15. Workshop for 20 National Supervisors:
20 participants x 6 days per diem x $15 = US$1,800
20 participants x RT bus fare to workshop site @ $10 = US$200
Total: US$2,000

16. Workshop for 40 Accreditation Center Administrators:
15 p/d x 2 technicians x $250 per day = US$7,500
Per diem @ $166 x 21 days x 2 technicians = US$6,972
RT air fare U.S./Nicaragua @ $650 x 2 technicians = US$1,300
DBA @ .04 x $7,500 = US$300
Local travel @ $20 per day x 15 days x 2 technicians = US$600
Total: US$16,672

17. Workshop for 40 Accreditation Center Administrators:
40 participants x 11 days per diem x $15 per day = US$6,600
40 participants x RT bus fare to workshop site $10 = US$400
Total: US$7,000

18. Workshop for 286 parents:
15 p/d x 9 technicians x $250 per day = US$33,750
Per diem @ $166 x 21 days x 9 technicians = US$31,374
RT air fare U.S/Nicaragua @ $650 x 9 technicians = US$5,850
DBA @ .04 x $33,750 = US$1,350
Local travel @ $220 per day x 15 days x 9 technicians =US$2,700
Total: US$75,024

19. Workshop for 286 parents:
286 participants x 11 days per diem x $15 = US$47,190
286 participants x RT bus fare to workshop site @ $10 =US$6,860
Total: US$54,050

20. Workshop for 104 Lab School and Demonstration School teachers:
15 p/d x 4 technicians x $250 p/d = US$15,000
Per diem @ $166 x 21 days x 4 technicians = US$13,944
RT air fare U.S./Nicaragua @ $650 x 4 technicians = US$2,600
DBA @ .04 x $15,000 = US$600
Local travel @ $20 per day x 15 days x 4 technicians = US$1,200
Total: US$33,344

21. Workshop for 104 Lab School and Demonstration School teachers:
104 participants x 11 days per diem x $15 = US$17,160
104 participants x RT bus fare to workshop site @ $10 =US$1,040
Total: US$18,200

22. Workshops for 453 trainees repeated 5 times during LOP:
6 p/d x 11 technicians x $250 p/d x 5 years = US$82,500
Per diem @ $166 x 8 days x 11 technicians x 5 years = US$73,040
RT air fare U.S./Nicaragua @ $650 x 11 technicians x 5 years = US$35,750
DBA @ .04 x $82,500 = US$3,300

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Local travel @ $20 per day x 5 x 11 technicians x 5 years = US$5,500
Total US$200,090

23. Workshops for 453 trainees repeated 5 times during LOP:
453 participants x 6 days per diem x $15 x 5 years = US$40,770
453 participants x RT bus fare to workshop site @ 10 x 5 years = US$22,650
Total: US$63,420

24. Workshop for 120 Master teachers:
120 participants x 6 days per diem x $15 = US$10,800
120 participants x RT bus fare t workshop site @ $10 = US$1,200
Total: US$12,000

25. Workshop for 12,000 teachers:
120 master teachers x 12 days per diem x $15 = US$21,600
120 master teachers x RT bus fare to workshop sites @ $20 = US$2,400
Total: US$24,000

26. International Think Tank for 50 GON representatives:
50 participants x RT air fare @ average of $500 = US$25,000
50 participants x $166 x 11 days per diem = US$8,300
50 participants x $100 excess baggage = US$5,000
Total: US$38,300

27. Costs related to Long-term technician family (3 dependents):
Air fare: US$9,750
Education Allowance: US$35,000
Total: US$44,750

28. Office Operations:
59 p/m x $200 materials and supplies = US$11,800
59 p/m x $100 telephone = US$5,950
59 p/m x $50 postage = US$2,950
59 p/m x $350 secretarial services = US$20,650
59 p/m x $300 duplication = US$17,700
59 p/m x $300 vehicle fuel and maintenance: US$17,700
Vehicle insurance @ $3,500 per year x 5 years = US$17,500
Total: US$94,200

29. 12 libraries for 12 Normal Schools:
12 libraries x $10 per bibliographical reference x 1,000 references = US$120,000
Total: US$ 120,000

30. 40 libraries for 40 Teacher Professionalization Centers:
40 libraries x $10 per bibliographical reference x 1,000 references = US$400,000
Total: US$400,000

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31. Materials and supplies for 12 Normal Schools to prepare child-centered training materials based on approved proposals:
12 Normal Schools x $10,000 per year x 5 years = US$600,000
Total: US$600,000

32. Non-monetary Teacher Incentives:
5 years x $10 x 1,400 teachers = US$70,000
Total: US$70,000

33. Equipment and furniture for 12 Laboratory Schools, one at each of 12 Normal School sites:
12 x $10,000 = US$120,000
Total: US$120,000

34. Equipment and furniture for 40 Demonstration Schools, one at each of 40 Professionalization Center sites:
40 x $10,000 = US$400,000
Total: US$400,000

35. Materials and supplies for 12 Laboratory Schools:
12 x $10,000 = US$120,000
Total: US$40,000

37. Office Equipment and furniture for Contractor LT-TA and ST-TA:
US$75,000 (list has already been submitted)

38. Materials and supplies for training seminars:
13,286 x $3.00 (60 pages @ 5 cents per page) per participant = US$39,858

39. Space Rental for Training:
13,286 x $8.00 = US$106,288 (in many cases will not be required but is best to include funds in the event space rental becomes necessary)
Total: US$106,288

40. Official Vehicle:
Purchase: US$18,000
Shipment: US$2,500
Total: US$20,500

Grand Total without including overhead, fees, or inflation factor: US$3,741,321

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COMPONENT 2, CHILD-CENTERED TEACHER TRAINING AND INSTRUCTIONAL MATERIALS

COMMODITIES DESCRIPTION:

I. Office Equipment and Furniture for Contractor LT-TA and ST-TA:

Description	Number of Units
Desks	4
Chairs	4
Electric Typewriters	2
Book shelves	3
Four drawer metal filing cabinets	4
Desk Lamps	4
Computers (planning and training purposes)	2
Computer (laptop)	2
Computer (graphics capability)	1
Uninterruptable Power Sources	4
Laser printer	1
Photocopy machine with collator	1
Binding equipment (plastic spiral)	1
Video cassette recording unit	1
VCR monitor	1
VCR cassette player	1
Extra battery pac for VCR	1
FAX machines	2
Telephone system (6 extension capability)	1
Electricity Generator (7,500 watts minimum)	1
Fire extinguisher	1

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Hot/cold electric water dispensor	1
Metal cabinet for storage of supplies and materials	1
Portable printer for laptop	2
Tool kit (basic)	1
35 mm camera (complete with telephoto lens)	1
Paper cutter (18")	1
Electric stapler (industrial grade	1
Book shelves	3
Transceiver, for LT-technician (in accordance with Mission specifications)	1
Electonic calculators with paper feed capabilities	2
Software for, planning and desktop publishing	1 set
Electric stencil burning machine	1
Electric duplicating copy machine	1
Electric hole punch machine	1
Surge protectors (multiple outlets)	6
Overhead projector	1
Slide projector	1
Screen for projectors	1
Collapsable tripod with flip chart fasteners	1
Whiteboard for use with markers (1mx2m)	1
Blackboard (1mx2m)	1
Work table (1mx2m)	1
Chairs for work table	8

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Portable sound amplification (PA) system for execution of workshops	1
Computer tables for work stations	4
Computer table chairs	4
Portable tape recorder for regular size cassettes (industrial quality)	1

II. Practice Teaching Classroom and Demonstation School ClassroomIllustrative list of equipment and furniture (104 sets) *:

Trapizoid shaped modular furniture to seat 50 students (two students per table)	25
Round tables for four learning centers (6 student capacity)	4
One large work table with capacity to seat eight students	1
Blackboards (1mx1.5m)	4
Blackboard (1.5mx3m)	1
Bookshelfs	4
Metal cabinets for materials storage	2
Desk for Master Teacher	1
Chair for Master Teacher	1
Four drawer metal file cabinet	1
Two drawer metal file cabinet	1
Resource Kit equal to the kit being purchased and or developed for Project Component 3	1

III. Illustrative list of Teaching Aids for Practice Teaching Classrooms and for Demonstration School Classrooms (total 100):

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Set of maps: Nicaragua, Central America, USA, the world	1
Atlas	1
Set encyclopedias	1
Set of puppets	1
Set of building blocks	1
Set of charts (parts of the human anatomy)	1
Complete set of GON and MED approved textbooks (one for each of 50 students and one set for the teachers	51 sets
Set of reference materials for language arts and math (one for each of 4 learning centers	4
Two Basic Education Guides, for checking out to parents and community leaders.	2
Child-safe sissors	20
Stapler	2
Chalkboard erasers	10

*It should be noted that while there may be a tendency to establish the ideal classroom, decision makers should keep in mind that the model classroom is intended for replication at a low-cost.

IV. Illustrative list of materials and supplies to be bought for instructional material development at Normal Schools, Teacher Professionalization Centers:

Low-cost duplication paper	Stencils
Cover stock	Butcher paper (rolls)
Toner	Plastic binders (assorted)
Staples	Pencils
Pens	Rulers
Meter sticks	Computer paper

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Printer cartriges	Carbon paper
Paper clips	Metal fasteners
Hand held hole punch	Ink
Chalk erasers	Lead and ink erasers
File folders (letter size)	File folders (legal size)
Photocopy machine paper	Fax machine paper (rolls)
Extention cords	File dividers
File divider folders	Writing tablets
Whiteboard markers	Chalk
35mm film	VCR cassettes
Tape recorder cassettes	Cotton swabs

V. Illustrative 4x4 Vehicle Generic Specifications:

Four door
Four-Wheel Drive
Six cylinder
Heavy duty six ply all-terrain tires
Side-view mirrors
Gasoline engine
Full front seat
Five-speed manual transmission
Manual hubs for engagement of 4x4
Export model without emission system
Power steering
Power brakes
Basic tool kit
Full-size spare tire (6-ply and all-terrain)
Arrangement for in-country honor of warranty
Split folding rear seat for increased cargo space
Rubber floor mat (not carpeting)

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VI. Regarding Computer Specifications and Specifications for other equipment to be procured:

Computer equipment specifications for planning and desktop publishing shuld be developed in consultation with technicians who are knowledgable of desired minimal capabilities and local maintenance services.

Specifications for other equipment should be of industrial grade due to the heavy utilization. Additionally, local maintenance parts and services should be researched prior to final determination of generic specifications.

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Basic Education Project
Logical Framework

Narrative Summary (NS)	Measurable Indicators (OVI)	Means of Verification (MOV)	Important Assumptions
Goal: Broad-based sustainable growth and improvement of quality of life of Nicaraguans.	- Increased family income - Improved public health status - Reduced fertility - Increase form 22% to 30% of labor force with primary education	- Gon economic and social statistics - Demographic health surveys - Project Evaluations	- Political Stability - Continuing democratic process - Growing employment opportunities as a result economic growth.
Purpose: Improve the quality and efficiency of primary school education in Nicaragua	EOPS - 50% reduction in repetition in first four grades - 20% increase in language arts and mathematics test scores - Improvement in academic achievement - Increase in Primary school completition - Decrease in years to produce a 6th grade graduate Reduction in dropout rate	- Site visits and personnel interviews Review of curricular design - Project evaluations	- Continued favorable GON policies toward primary education improvement - GON commitment to allocation of appropriate funding and personnel to primary education. - Teachers committed to improve instruction and adopt appropriate innovations - Parental support for primary education.
Outputs: I. Institutional Strengthening - No. of people trained	- 600 MED employees, school supervisors and national level employees.	- Project Reports and Evaluations	- Continued high level of MED receptivity to external assistance in the education sector. - Other assumptions as stated above.
- Policy Development and Implementation	- Established Policy Consultative Mechanism - Decentralization policy carried out. - Curriculum reform policies carried out - Increases in % of MED budget allocated to primary education	- Project Reports and Evaluations	
- MED Operating Systems	- Improved decision making budgeting, personnel allocation and commodities distributions: Tracking system established - Employee merital promotion system established - Manuals on MED personnel policies and proceduros developed. - Better internal folw of information to the staff meetings, etc.	- Project Reports and Evaluations	
Decision Making Information	- A sound Management to formation systems established	- Project Ministry reports and evaluations	

Narrative Summary (NS)	Measurable Indicators (OVI)	Means of Verification (MOV)	Important Assumptions
2. Teacher Training: - Develop basic education guide - Train MED central and local staff - Train Normal School administrators - Train Municipal Delegation Methodologists in supervisory skills - Train professionalization professors - Train national supervisors - Train accreditation Center administrators - Train parents and community leaders - Train laboratory school teachers and Accreditation Center demonstrations teachers - Train MED staff at all levels and Parent/Community Association members - Train master teachers selected from private schools - Train primary school teachers	- Distribution of 20,000 copies - 40 central MED and municipal staff trained - 120 Normal School Administrators and professors trained - 143 methodologists trained - 80 professionalization center professors trained - 19 National Supervisors trained - 40 Accreditation Center administrators trained - 286 parents and community leaders trained - 104 laboratory and demonstration school teachers trained - 453 trainees x 5 years - 120 master teachers from the private sector trained - 12,000 primary teachers (grades 1–4) trained	- MED statistics - Quaterly Project Reports - Formal Project evaluations	Same as above
3. Curriculum Development Language arts, mathematics and civics curricula developed by Nicaraguan professionals - Creation of new teacher guides - Development of teacher guides for existing texts - Development of new instructional materials specification of grade level competencies development and testing of language materials - development and testing of math and civics materials - Development of cost and materials recovery mechanisms - Procedures for student assessments and grade-level competencies - Provision of classroom resources	- New curriculum developed - 7,500 new teacher's guide - 7,500 teacher's guides for existing texts - New instrucional materials developed for grades 1–3 in science, math, and civics - 10% increase in cost recovery over 1991 - Pilot testing of new evaluation instruments - 2,500 cajas instruccionales delivered	- Structured classroom observation - investigation of teacher knowledge, attitudes and behaviors - MED statistics - Standardized test results formative evaluations using both quantitave and qualitative methodologies - scheduled project evaluations - Classroom ethnography	Same as above

Narrative Summary (NS)	Measurable Indicators (OVI)	Means of Verification (MOV)	Important Assumptions
Inputs ($000s):			
A.I.D.(see Annex 3)			
Technical Assistance	9,077	Project Reports	US Congress makes funds available
Training	3,189	USAID Controller Records	
Commodities	14,884	Audits	Satisfactory Project Implementation
Other Costs	1,700		
Unprogrammed ST TA	339		
USAID/N Project Coordinator	211		
Evaluations and Audits	600		
Total	$30,000		
GON (See Annex 3, Table VI-7A)			
Counterpart personnel & salaries of trainees while in training	1,637		Continued GON and MED priority to primary education.
Salaries of 12,000 primary school teachers while in training	4,752		
Office Space	831		
Purchase of up to 60 motorcyles	100		
Fuel for motorcyles	173		
Fuel for donated vehicles	153		
Total	$7,446		
Total Estimated Life-of-Project Cost	$37,446		

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Annex 5
Basic Education (BASE) Project
Indicators/Baseline Information

A. Introduction

The Nicaragua Education Subsector Assessment highlighted serious problems in the primary education system, resulting from poor internal efficiency. The assessment suggested that the combination of high repetition and dropout rates led to a sixth grade completion rate of only 223 graduates per 1,000 entrants. Of these graduates, only 44 were estimated to complete six years of education without any repetition of grades. The result of such a high degree of inefficiency was estimated to require an investment of 16 years of education per sixth grade graduate.

The assessment cautioned, however, that the official statistics likely underestimate repetition and thus overestimate dropout. For the Project Paper design effort, the educational system was again modelled, using the limited data available, in order to better approximate a baseline projection of the system, and to provide a basis for estimating the impact of Project activities on the education system. The resulting projections should be refined at the startup of Project implementation through the gathering and review of more detailed information not available through existing publications. It is recommended that the STEP model, incorporating the Schiefelbein repetition estimation technique, be used for analysis purposes.

The primary reason to doubt the estimations derived from official repetition data is based on a simple examination of grade by grade enrollment figures. If only 223 out 1,000 entrants graduate from sixth grade, and the number of new entrants can be estimated at under 100,000 (roughly the number of seven-year-olds in the total population), then there should be no more than 22,300 children in sixth grade. Enrollment data from 1990 indicate that, in fact, there were 42,235 sixth graders. Since dropout is the mechanism by which children fail to reach sixth grade, the dropout rate is clearly much lower, and, as a result, repetition rates must be higher than officially reported. This scenario is much closer to that which occurs in other Central American countries, and has recently been validated through field studies conducted in Honduras. Finally, formal educational interventions cannot directly solve the problem of dropout due to its broader socioeconomic context.

B. Developing an Estimation Model

A cohort model was therefore derived (see Exhibit 1) which conforms to actually observed patterns of enrollment composition with respect to both grade and age. This model estimates high (44%) repetition in first grade, but assumes a reasonable 12% dropout rate for that grade. Some 34% of primary enrollment is

concentrated in first grade, a phenomena observed in the actual enrollment data. This model estimates that 382 out of 1,000 entrants eventually graduate from sixth grade, only 100 of them "on-time", i.e., in six years. This inefficiency results in 13.63 years of instruction being invested per sixth grade graduate, and for the 382 who graduate, an average of 1.52 years are repeated.

This revised model is accepted as a reasonable estimate of the current situation in primary education in Nicaragua, and strongly suggests that Project resources be directed towards the reduction of excessively high repetition rates observed in the early grades of primary. A target-setting approach was taken to estimate the impact of the Project over the next ten years, based on the assumption that Project interventions can reduce repetition rates by 50% over a ten-year period in grades 1-3, and by 20% over the same period for grades 4 and 5. No direct Project impact is assumed on sixth grade repetition rates, nor on dropout rates in any of the six grades of primary.

Exhibit 2 shows, using a similar cohort model, the result of the efficiency gains to be achieved by the year 2000. The sixth grade completion rate will rise to 443 per 1,000 entrants, a figure still well below the 550/1,000 average in the other Central American countries. The distribution of enrollment will be less concentrated in first grade, reflecting more children passing more grades. "On-time" six grade graduates will more than double to 211/1,000 entrants: nearly half of the sixth grade graduates will do so without repeating a single year. The overall investment of instruction years per graduate output will decline to 10.92 years, and only 6.80 years, on average, will be spent by each graduating sixth grader.

C. Projections to the Primary Education System

This type of improvement in educational efficiency is very significant, but it is also achievable. The magnitude of the current problem means that reductions are more easily achieved if Project resources are properly focused on service delivery actions reaching children in the early grades. The efficiency improvements are also projected to occur over a relative long period of time in a gradual fashion. Exhibits 3 and 4 illustrate the expected results in baseline and Project impact projections on the primary education system as a whole for the period 1990-2000.

The baseline projection (Exhibit 3) assumes that current grade-specific transition rates will remain constant over the entire period. Two other factors are included in the projection: the increase in the seven-year-old population and an estimated decrease in the entrance rate (percentage of the seven-year-old population entering the system) from 110% to 105% over the 1990-

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2000 period. The Nicaraguan primary system has grown at a very high rate over the last decade, mostly through expansion of services and the "late entry" of children older than seven years of age. Such expansion cannot continue indefinitely, because the pool of overage entrants eventually is reduced to zero. Thus, the growth of the total enrollment of all six grades in the primary system over the next decade declines from an estimated 3.2% in 1990 to about 1.8% in the year 2000.

Exhibit 3 also estimates, by grade and year, the number of children expected to be repeating a grade. Currently, nearly 100,000 children are estimated to be repeating the first grade, and nearly 65,000 children are repeating second through sixth grades. Assuming a unit cost of US$38.70, this means that US$6.4 million are currently being spent on repetition today. By the year 2000, more than 205,000 (out of a total primary enrollment of 788,000) will be repeating a grade, resulting in nearly US$8.0 million per year in costs of repetition.

Exhibit 4 incorporates the same assumptions about both population growth and the gradual decline of the entrance rate, but linearly projects the Project impact targets of halving repetition rates in grades 1-3 and reducing repetition by 20% in grades 4 and 5 by the year 2000. Because the system is not "bloated" by so many repeaters, the projected total primary enrollment by 2000 is some 24,000 smaller than under the baseline projection. The number of students repeating a grade declines to about 100,000 for all six grades, resulting in a savings, relative to the baseline projection, of over US$4.0 million per year by 2000. In all, over US$21.0 million in cumulative repetition savings are estimated to be achieved by the year 2000.

Exhibit 5 represents historical, baseline and Project impact projections of the growth of the primary education system over the 1979-2000 period. Population estimates of the 7-12 year-old pool are presented as a backdrop for these projections. The gross enrollment ratio (GER) is an estimate of the enrolled primary population (of all ages) divided by the population estimate of children 7-12 who theoretically should be enrolled. The very significant gains in GER during the early 1980's can be observed in the Exhibit, peaking about 1983 at around 110%. The baseline projection assumes that the growth of the capacity of the school system will continue at a rate of about 15-20,000 spaces per year, which is within the range the MED has historically been able to achieve, although its capacity to do so over sustained periods has not been tested. In this regard, the slower growth rates expected under the Project impact projection will require the MED to add about half as many spaces annually by the year 2000.

The principal focus of Project interventions is the reduction in repetition rates. Exhibit 6 graphically presents

total primary repeaters expect under baseline and Project impact projections from 1990-2000. From this graph, it is clear that the numbers of repeaters are expected to increase unless repetition-oriented interventions are initiated. Exhibit 7 shows the same pattern for the estimated annual cost of repeaters.

Exhibit 8 demonstrates that the significant reduction in total primary repeaters is effectively targeted towards the early grades. Because of the magnitude of the repetition problem in first grade, it is estimated that 80,000 fewer children will repeat first grade in the year 2000 as a result of the Project. Exhibit 9 presents the target numbers of repeaters per grade for each year, and is to be used as the benchmark by which Project effectiveness is to be measured. These benchmarks take into account the increased flow of students through the system, and thus, for example, the number of sixth grade students expected to repeat will increase over the life of the Project <u>because</u> more children will reach sixth grade in the first place.

D. Global Education System Impacts

The fact that lowered repetition rates affect the whole system can also be appreciated in Exhibit 10, which shows the number of students expected to pass each grade by the year 2000. More students will pass from each grade to the next, the relative impact is greatest for the sixth grade where no <u>direct</u> Project impact is assumed by these projections. The system-wide impact of the reduction of early grade repetition is also seen by examining Exhibits 11 and 12. Although the projected total primary enrollment differs relatively little between the baseline and impact models over the 1990-2000 period, the relative <u>composition by grade</u> of that enrollment does. The impact projection expects significantly fewer early graders and more upper grade students, indicating that more Nicaraguan children are receiving more years of education prior to leaving the education system. Studies in most countries have shown that even one extra year of education can have significant impact on earnings in virtually all job categories.

Finally, system-wide estimates of school year outcomes are shown in Exhibits 13 and 14 for 1990 and 2000. Currently, only 61.9% of schoolchildren are promoted to the next grade, and 26.5% will repeat the grade. Dropouts account for some 11.6% of enrollment, but the variety of causes for dropout make it difficult to direct Project resources to this problem at this time. Under Project impact assumptions, it is expected that by the year 2000, 75.2% of children will pass their current grade and repetition will be reduced to only 13.2% of enrollment. Dropout is assumed to remain unchanged at 11.6%.

E. Implementation Issues

As noted in the introduction, the scarce availability of reliable data required that new estimations of transition rates be made for the development of baseline indicators and Project benchmarks. It was also recommended that early on in Project implementation, these estimates be revised through the application of the STEP model used elsewhere in Central America for tracking educational progress. Data sources should then be checked and complemented (the Schiefelbein transition rate estimation technique requires enrollments disaggregated by year, grade and age). Frequently, these data are available in ministries of education, but not always in published form. The Schiefelbein model also requires population estimates disaggregated by year and simple ages. Currently available population projections are based upon the 1971 census, and new census data are not expected to become available until perhaps 1994 or 1995. In light of this, it is suggested that the current census projections be compared over a number of recent years with alternate sources of data, such as reported births. This type of comparison will suggest the degree to which the census data are biased.

The Project includes a number of significant activities directed to improving enrollment reporting, and these improvements will ensure the availability of data to track Project progress towards the benchmarks proposed in this section. These data will be available with a rapid turnaround on an annual basis, and should easily satisfy Project needs for monitoring these quantitative targets.

NICARAGUA PRIMARY EDUCATION PROJECT
COHORT ANALYSIS - BASELINE ASSUMPTIONS

	Grades					
Transition Rates:	1	2	3	4	5	6
Repetition	44.0%	21.0%	18.0%	17.0%	12.0%	4.0%
Dropout	12.0%	12.0%	10.0%	16.0%	15.0%	—
Promotion	44.0%	67.0%	72.0%	67.0%	73.0%	96.0%

Cohort Table

	Grade ->	1	2	3	4	5	6	Graduates
Age ->	7	1000						
	8	440	440					
	9	194	286	295				
	10	85	145	245	212			
	11	37	68	141	212	142		
	12	16	31	71	138	159	104	
	13	7	14	33	75	111	120	100
	14		6	15	37	63	86	116
	15			7	17	32	50	83
	16			1	8	15	25	48
	17					7	12	24
	18							12
	19							
	Total	1780	990	808	699	531	398	382
Enrollment distribution:		34.2%	19.0%	15.5%	13.4%	10.2%	7.6%	

SUMMARY STATISTICS:

Total graduates/1000 entrants	382
On-time graduates/1000 entrants	100
Student-years per graduate I	13.63
Student-years per graduate II	7.52

Note: Student years per graduate I is the sum of all years of instruction applied to all students divided by the number of students who actually graduate from sixth grade.
Student years per graduate II is the sum of years of instruction applied to only those who graduate, divided by the number of sixth grade graduates.

NICARAGUA PRIMARY EDUCATION PROJECT
COHORT ANALYSIS - PROJECT TARGET PROJECTIONS
Projection: Grade 1-3 repetition reduced by 50%, 4-5 repetition by 20%

	Grades					
Transition Rates:	1	2	3	4	5	6
Repetition	22.0%	10.5%	9.0%	13.6%	9.6%	4.0%
Dropout	12.0%	12.0%	10.0%	16.0%	15.0%	—
Promotion	66.0%	77.5%	81.0%	70.4%	75.4%	96.0%

Cohort Table

	Grade ->	1	2	3	4	5	6	
Age ->	7	1000						Graduates
	8	220	660					
	9	48	215	512				
	10	11	54	212	414			
	11	2	13	61	228	292		
	12	1	3	15	81	189	220	
	13	0	1	4	23	75	151	211
	14		0	1	6	24	63	145
	15			0	2	7	20	60
	16			0	0	2	6	20
	17					0	2	6
	18							1
	19							
	Total	1282	945	805	755	588	461	443
Enrollment distribution:		26.5%	19.5%	16.6%	15.6%	12.2%	9.5%	

SUMMARY STATISTICS:

Total graduates/1000 entrants	443
On-time graduates/1000 entrants	211
Student-years per graduate I	10.92
Student-years per graduate II	6.80

Note: Student years per graduate I is the sum of all years of instruction applied to all students divided by the number of students who actually graduate from sixth grade.
Student years per graduate II is the sum of years of instruction applied to only those who graduate, divided by the number of sixth grade graduates.

NICARAGUA PRIMARY EDUCATION PROJECT - BASELINE PROJECTION
Assumes all rates constant, with slight decrease in entrance rate. System adjusts only to school-aged population growth.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Repetition rates:											
Grade 1	44.0%	44.0%	44.0%	44.0%	44.0%	44.0%	44.0%	44.0%	44.0%	44.0%	44.0%
2	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%
3	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%
4	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%	17.0%
5	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
6	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Dropout rates:											
Grade 1	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
2	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
3	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
4	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%
5	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Entrance	1.10	1.09	1.09	1.08	1.08	1.07	1.07	1.06	1.06	1.05	1.05
7 yr old po	117,825	121,108	124,484	127,953	131,518	135,184	138,067	141,013	144,021	147,093	150,231
Repeaters:											
Grade 1	99,965	102,335	104,730	107,166	109,650	112,188	114,365	116,399	118,387	120,371	122,370
2	25,367	26,320	27,017	27,667	28,315	28,973	29,644	30,242	30,795	31,328	31,857
3	17,699	17,754	18,311	18,812	19,275	19,730	20,190	20,658	21,086	21,480	21,858
4	12,990	14,244	14,494	14,915	15,328	15,713	16,088	16,464	16,846	17,202	17,531
5	6,776	6,957	7,571	7,763	7,986	8,207	8,416	8,618	8,821	9,026	9,219
6	1,689	1,716	1,761	1,913	1,966	2,022	2,078	2,131	2,182	2,234	2,286
Total	164,487	169,325	173,884	178,236	182,519	186,833	190,780	194,513	198,117	201,641	205,120
Cost 000's	$6,366	$6,553	$6,729	$6,898	$7,063	$7,230	$7,383	$7,528	$7,667	$7,804	$7,938
Enrollment:											
Grade 1	227,193	232,579	238,022	243,558	249,206	254,973	259,920	264,543	269,061	273,570	278,113
2	120,795	125,332	128,654	131,747	134,832	137,965	141,161	144,009	146,641	149,181	151,699
3	98,330	98,632	101,726	104,509	107,082	109,613	112,167	114,768	117,144	119,335	121,432
4	76,410	83,787	85,259	87,737	90,162	92,427	94,634	96,848	99,097	101,190	103,124
5	56,469	57,971	63,094	64,695	66,547	68,394	70,133	71,820	73,507	75,216	76,823
6	42,235	42,912	44,035	47,820	49,140	50,545	51,949	53,275	54,560	55,842	57,141
Total	621,432	641,213	660,790	680,066	696,969	713,916	729,964	745,263	760,009	774,335	788,332
Growth	19,781	19,578	19,275	16,903	16,947	16,048	15,299	14,746	14,326	13,997	
%Growth	3.2%	3.1%	2.9%	2.5%	2.4%	2.2%	2.1%	2.0%	1.9%	1.8%	

NICARAGUA PRIMARY EDUCATION PROJECT - PROJECT IMPACT SIMULATION
Assumes repetition of grades 1-3 cut by 50% and 4-5 by 20% by 2000, linear.
No impact on dropout rates. System adjusts to school-aged population growth, entrance rate declines slightly.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Repetition rates:											
Grade 1	44.0%	41.8%	39.6%	37.4%	35.2%	33.0%	30.8%	28.6%	26.4%	24.2%	22.0%
2	21.0%	19.9%	18.9%	17.8%	16.8%	15.7%	14.7%	13.6%	12.6%	11.5%	10.5%
3	18.0%	17.1%	16.2%	15.3%	14.4%	13.5%	12.6%	11.7%	10.8%	9.9%	9.0%
4	17.0%	16.7%	16.3%	16.0%	15.6%	15.3%	15.0%	14.6%	14.3%	13.9%	13.6%
5	12.0%	11.8%	11.5%	11.3%	11.0%	10.8%	10.6%	10.3%	10.1%	9.8%	9.6%
6	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Dropout rates:											
Grade 1	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
2	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
3	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
4	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%
5	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Entrance	1.10	1.09	1.09	1.08	1.08	1.07	1.07	1.06	1.06	1.05	1.05
7 yr old pop	117,825	121,108	124,484	127,953	131,518	135,184	138,067	141,013	144,021	147,093	150,231
Repeaters:											
Grade 1	99,965	97,218	92,230	86,416	80,417	74,494	68,446	62,526	56,810	51,302	45,990
2	25,367	25,004	25,034	24,590	23,773	22,743	21,594	20,299	18,920	17,496	16,038
3	17,699	16,866	16,549	16,536	16,297	15,802	15,136	14,369	13,493	12,545	11,551
4	12,990	13,959	14,013	14,287	14,861	15,364	15,694	15,888	16,001	16,024	15,983
5	6,776	6,817	7,285	7,377	7,528	7,628	8,112	8,312	8,438	8,517	8,549
6	1,689	1,716	1,767	1,929	2,006	2,096	2,235	2,377	2,501	2,609	2,707
Total	164,487	161,581	156,878	151,134	144,881	138,328	131,217	123,771	116,163	108,492	100,818
Cost 000's	$6,366	$6,253	$6,071	$5,849	$5,607	$5,353	$5,078	$4,790	$4,495	$4,199	$3,902
SAVE 000's	$0	$300	$658	$1,049	$1,457	$1,877	$2,305	$2,738	$3,172	$3,605	$4,036
TOTAL SAVINGS relative to Baseline ->			$21,196	(assumes US$38.70 cost/repeater)							
Enrollment:											
Grade 1	227,193	232,579	232,905	231,059	228,456	225,739	222,226	218,624	215,189	211,993	209,045
2	120,795	125,332	132,455	137,760	141,506	144,398	146,899	148,707	150,161	151,476	152,747
3	96,330	96,632	102,154	106,075	113,174	117,049	120,129	122,813	124,933	126,714	128,348
4	76,410	83,787	85,862	89,403	95,019	100,421	104,907	108,674	112,051	114,948	117,522
5	56,469	57,971	63,240	65,396	68,188	72,483	76,817	80,540	83,710	86,560	89,050
6	42,235	42,912	44,174	48,236	50,140	52,438	55,880	59,418	62,524	65,216	67,667
Total	621,432	641,213	660,790	679,929	696,483	712,527	726,858	738,776	748,567	756,908	764,379
Growth	19,781	19,578	19,139	16,554	16,044	14,331	11,918	9,791	8,340	7,471	
%Growth	3.2%	3.1%	2.9%	2.4%	2.3%	2.0%	1.6%	1.3%	1.1%	1.0%	

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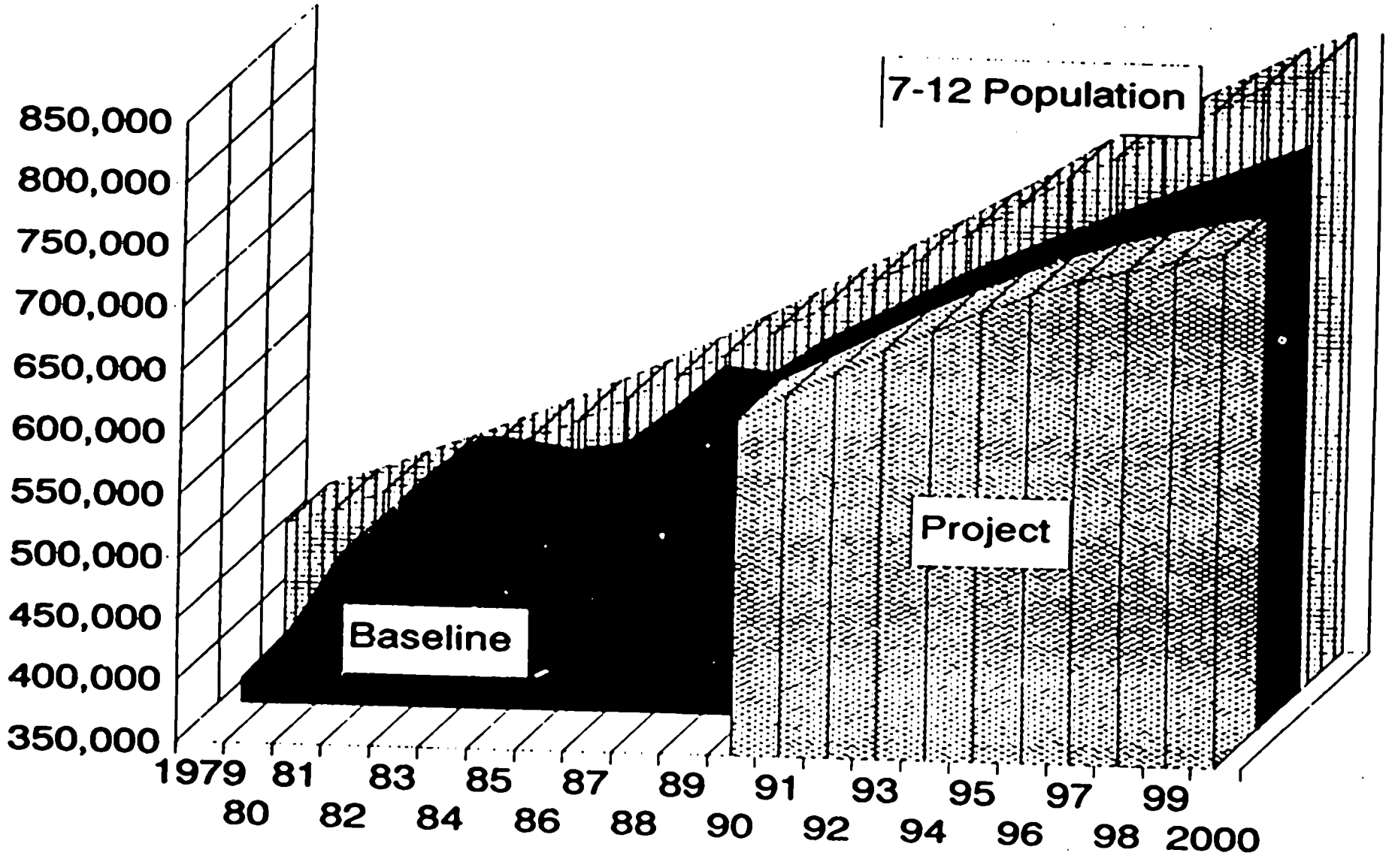
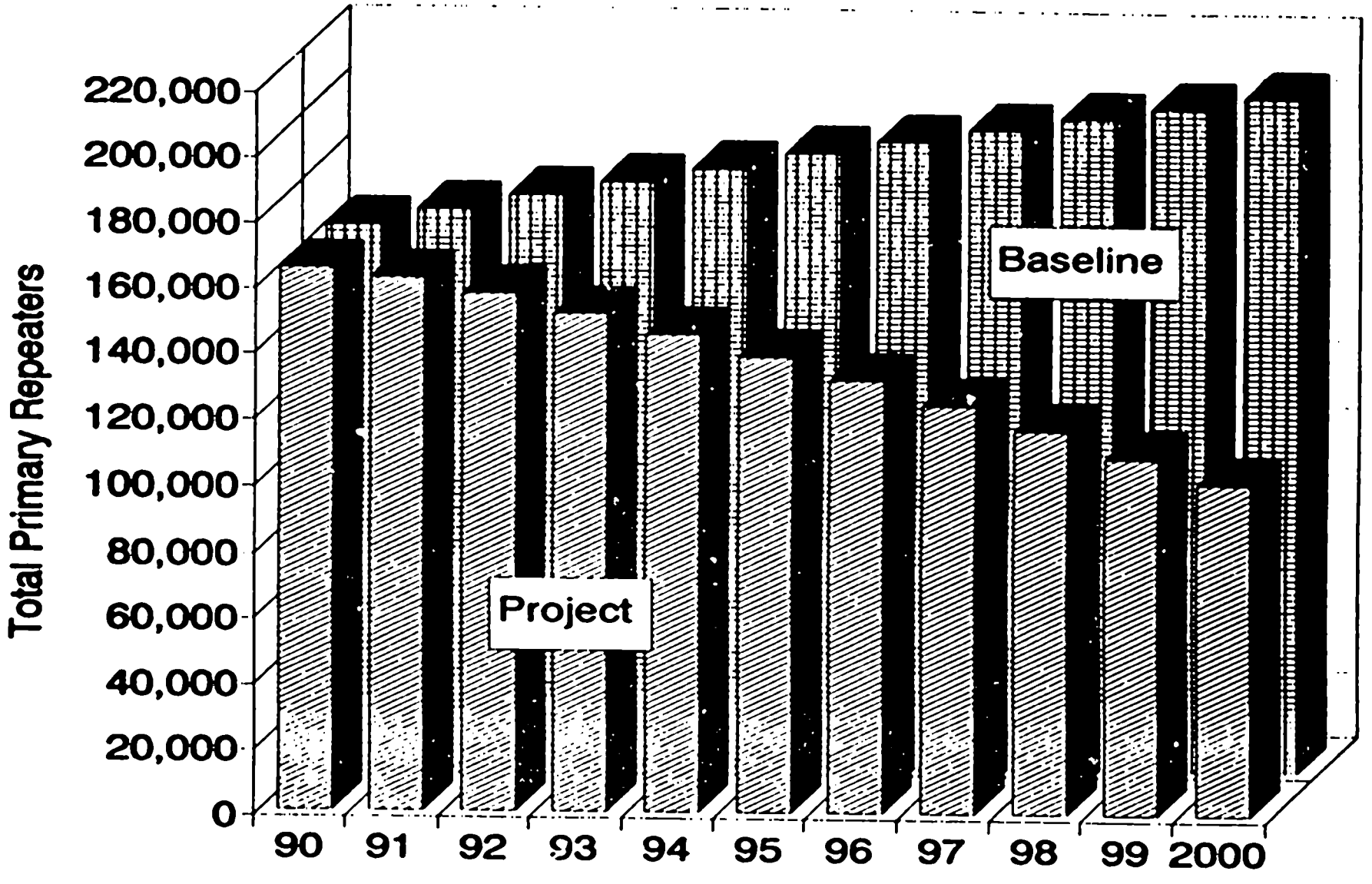
7-12 Population and Primary Enrollment
Baseline and Project Projections

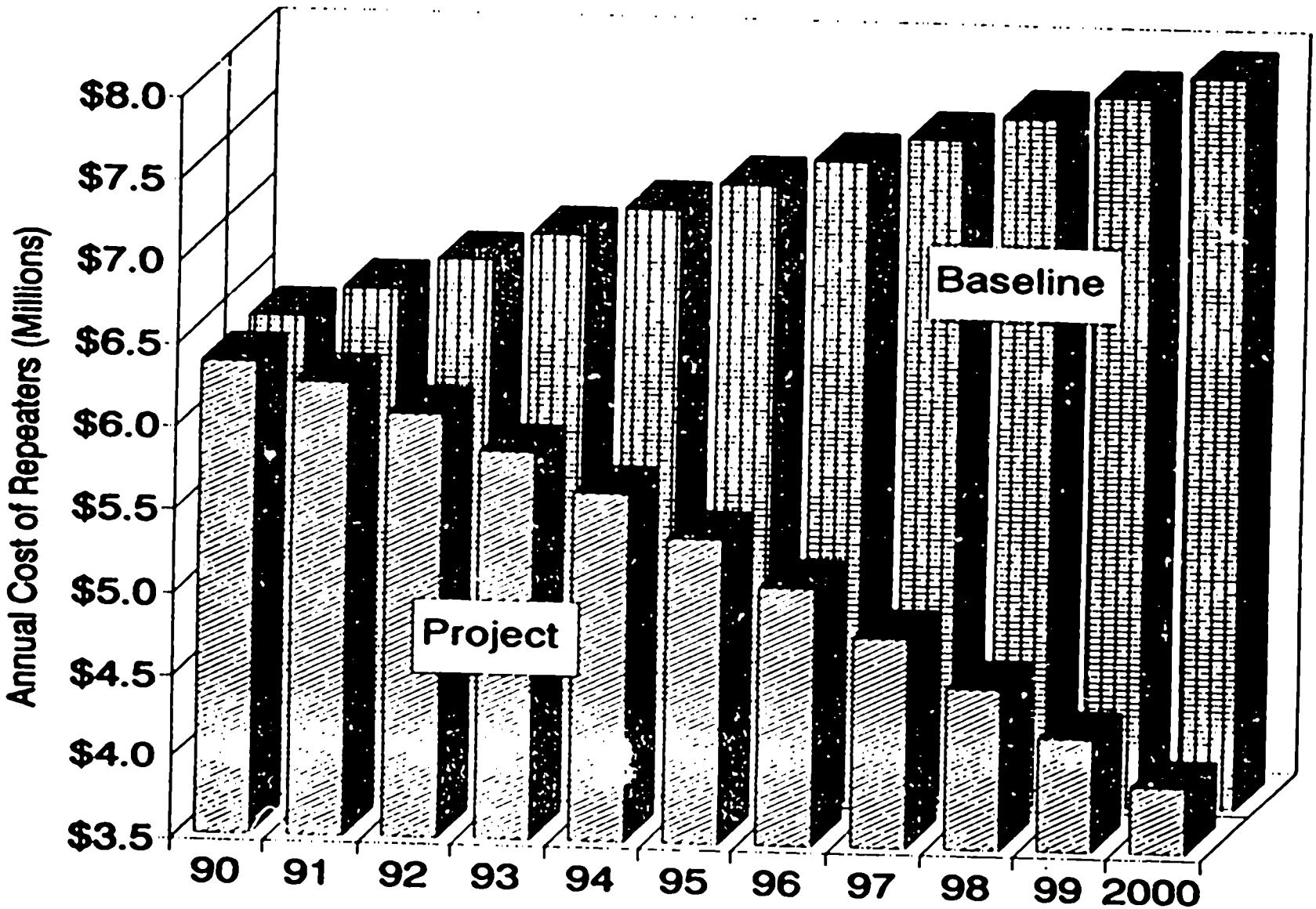


Project Impact on Repetition

Baseline versus Project 1990-2000

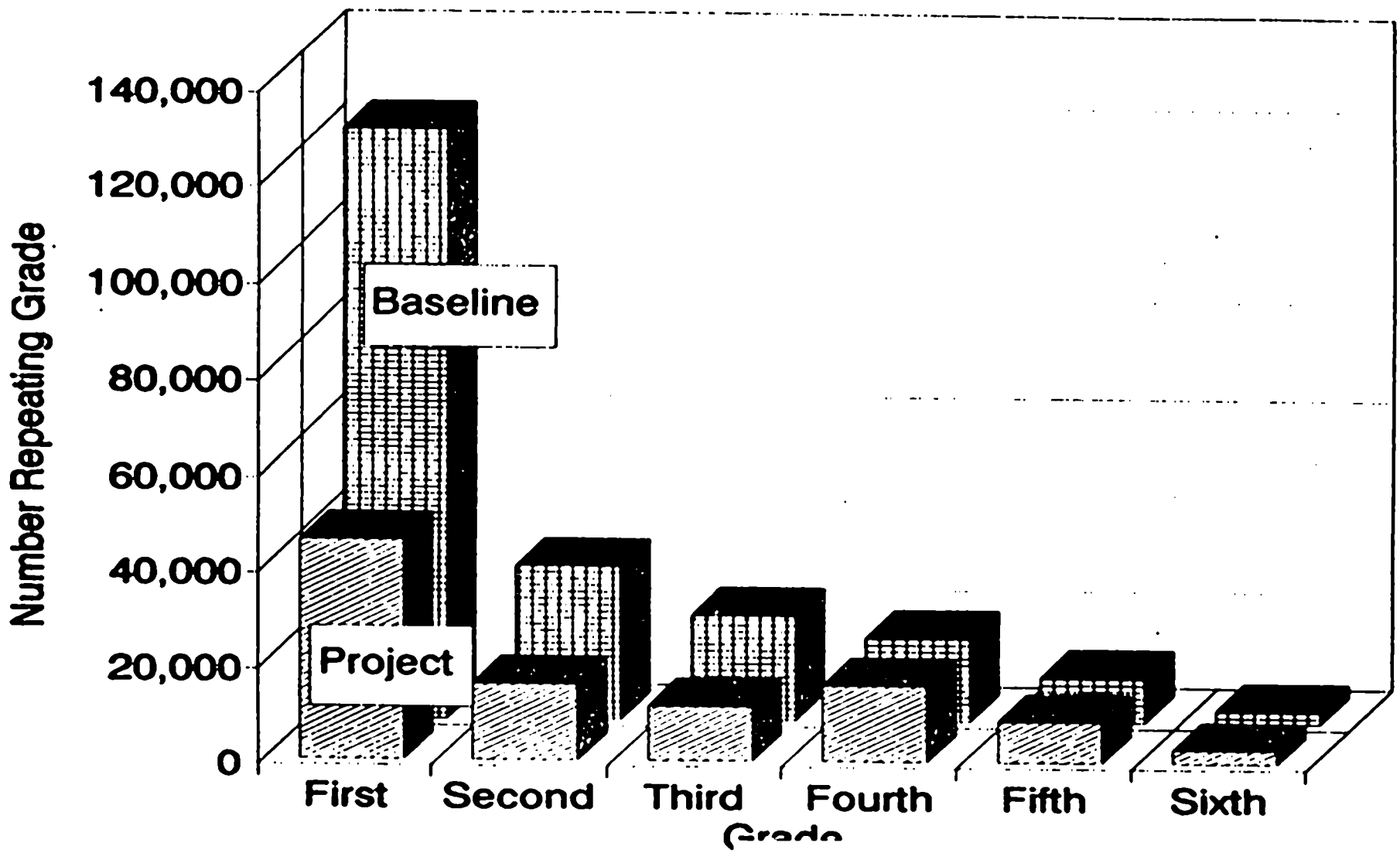


Project Impact - Repetition Costs
Baseline versus Project 1990-2000



Project Impact on Repetition - 2000

Number of Students Repeating Grades 1-6

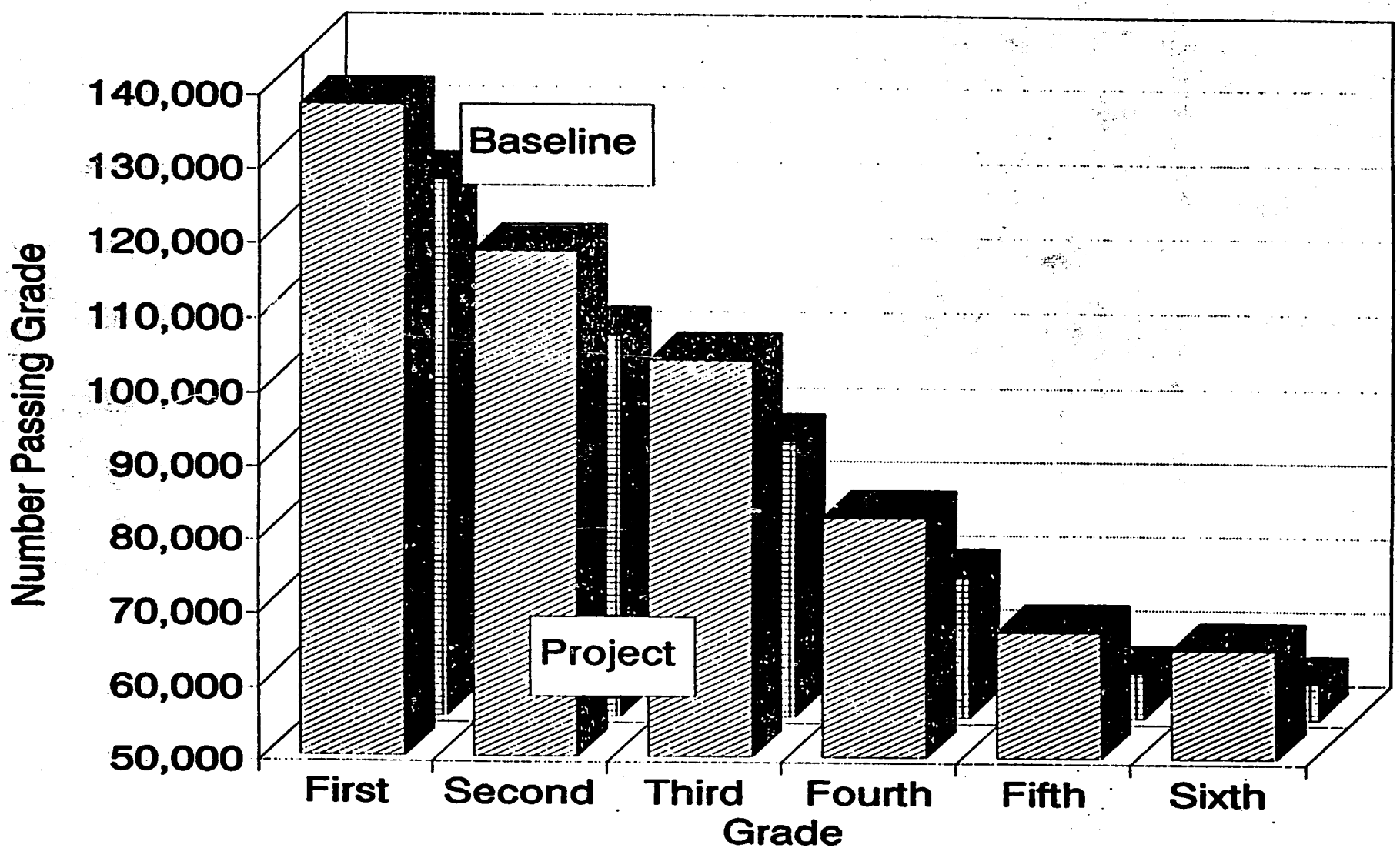


NICARAGUA PRIMARY EDUCATION PROJECT
Target Numbers of Repeaters by Grade

Year	First	Second	Third	Fourth	Fifth	Sixth	Tota;
1990	99,965	25,367	17,699	12,990	6,776	1,689	164,487
1991	97,218	25,004	16,866	13,959	6,817	1,716	161,581
1992	92,230	25,034	16,549	14,013	7,285	1,767	156,878
1993	86,416	24,500	16,536	14,287	7,377	1,929	151,134
1994	80,417	23,713	16,297	14,861	7,528	2,006	144,881
1995	74,494	22,743	15,802	15,364	7,828	2,098	138,328
1996	68,446	21,594	15,136	15,694	8,112	2,235	131,217
1997	62,526	20,299	14,369	15,888	8,312	2,377	123,771
1998	56,810	18,920	13,493	16,001	8,438	2,501	116,163
1999	51,302	17,496	12,545	16,024	8,517	2,609	108,492
2000	45,990	16,038	11,551	15,983	8,549	2,707	100,818

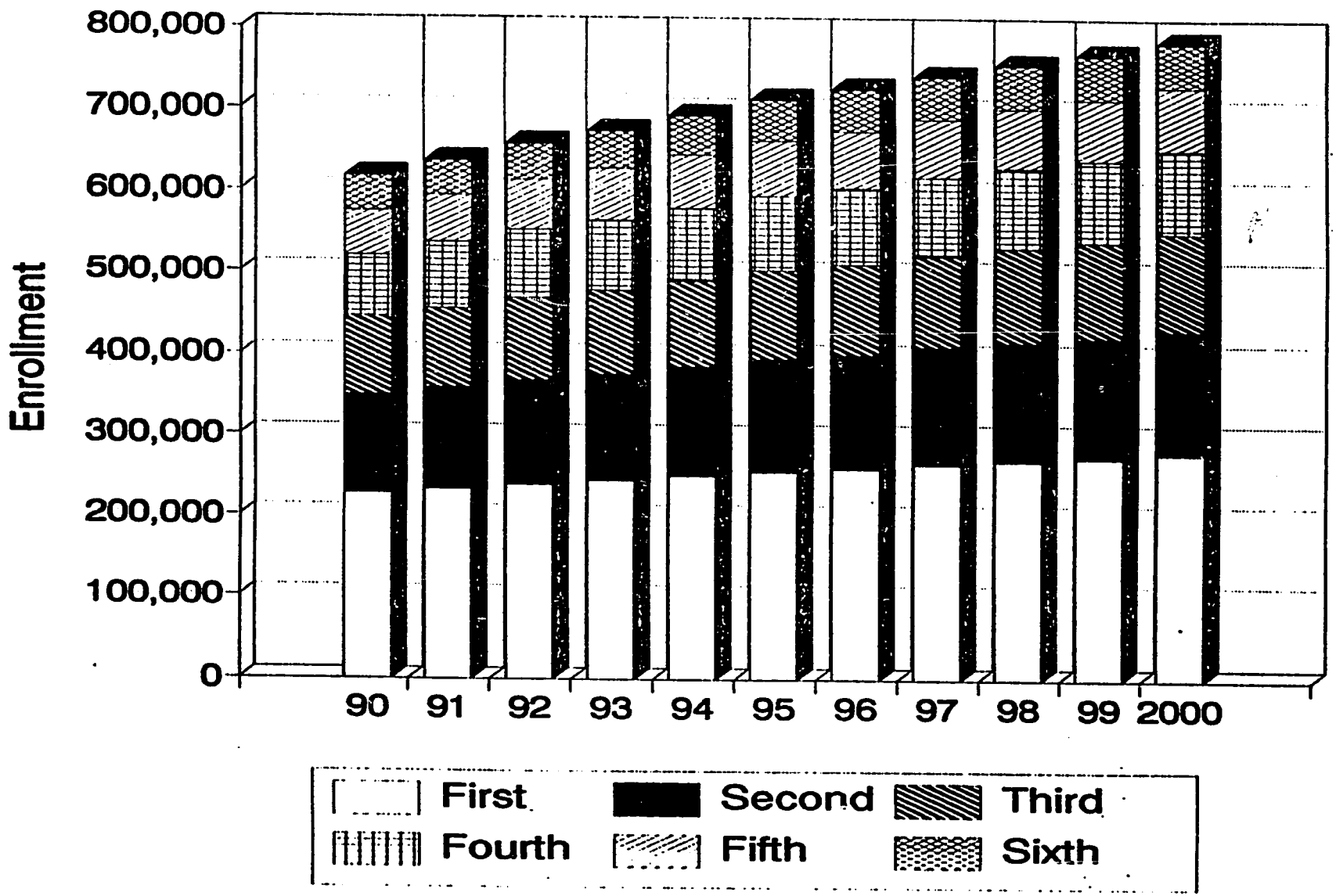
ANNEX 5
Exhibit 10

Project Impact on Promotion - 2000
Number of Students Passing Grades 1-6



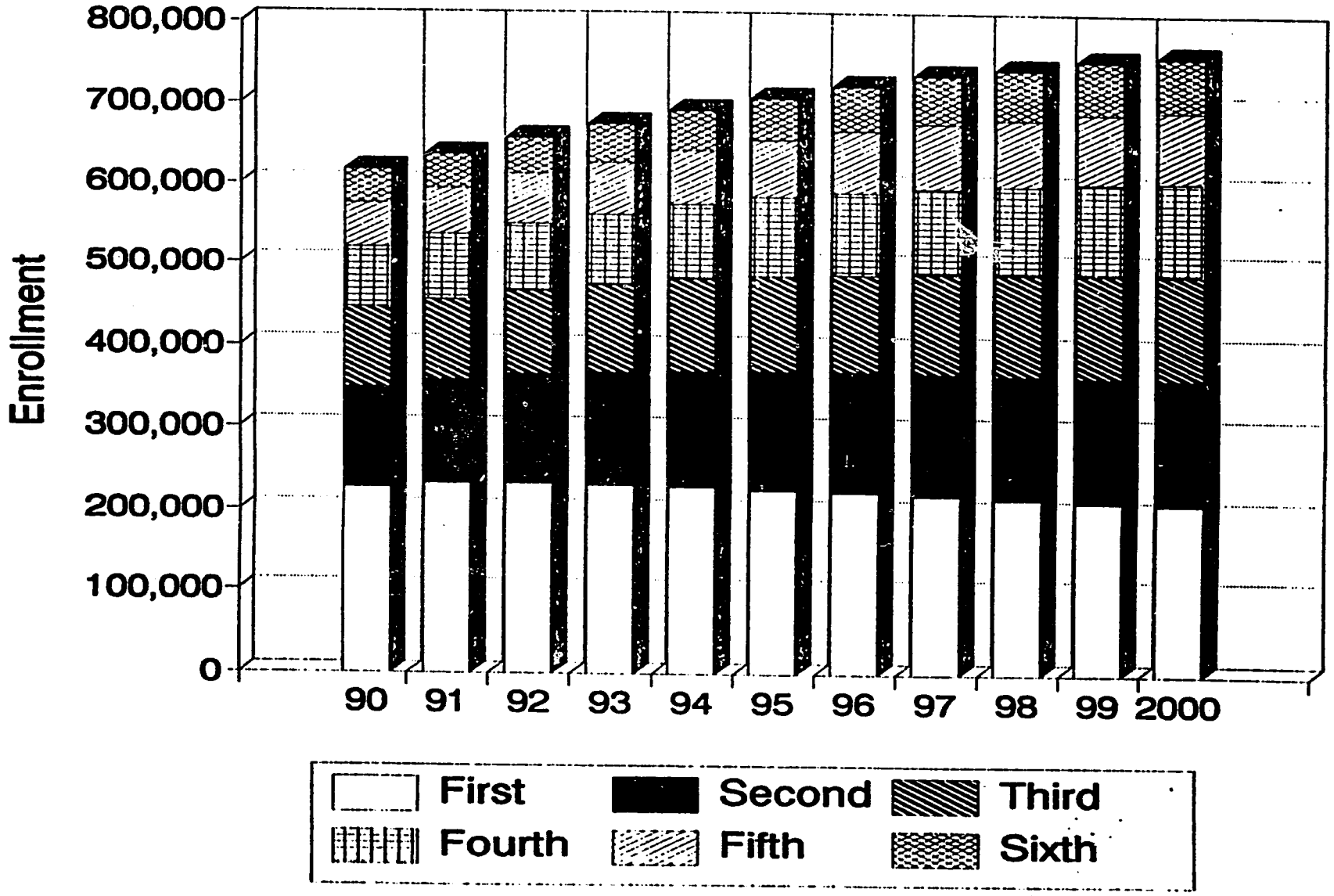
Composition of Primary Enrollment

Baseline Projection

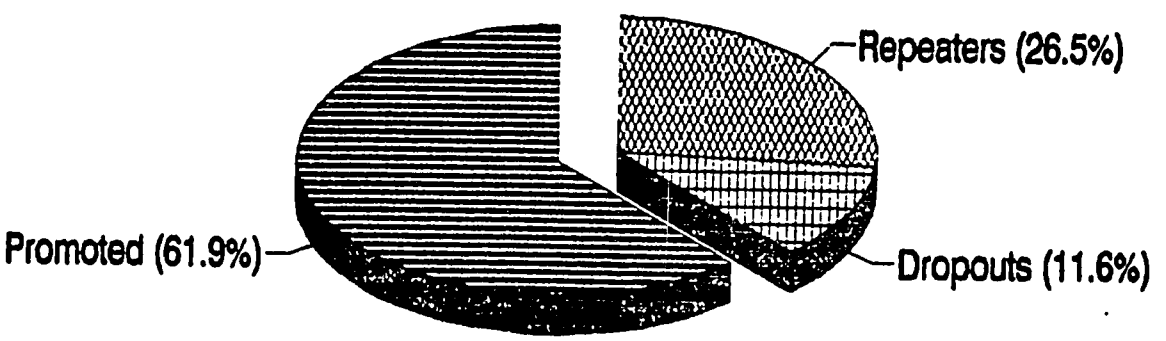


Composition of Primary Enrollment

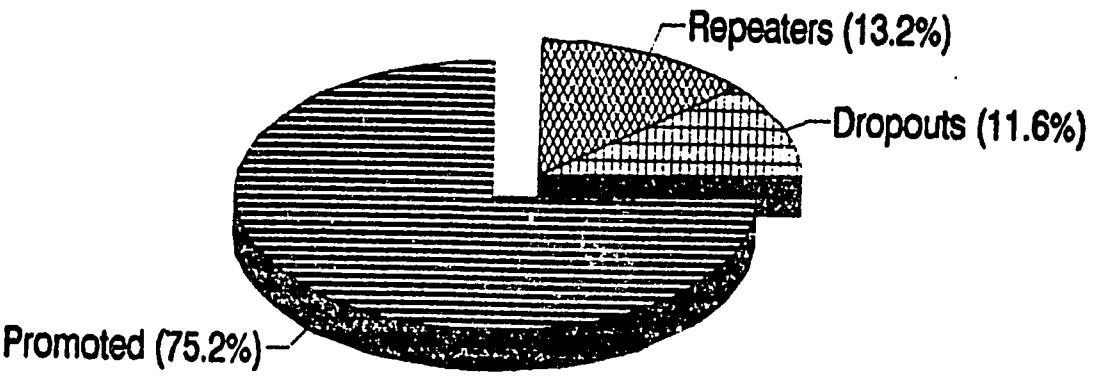
Project Impact Projection



Total Primary Enrollment - 1990
Repeaters, Dropouts and Promoted



Total Primary Enrollment - 2000
Repeaters, Dropouts and Promoted



Annex 6

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

LAC-IEE-92-09

ENVIRONMENTAL THRESHOLD DECISION

Project Location	:	Nicaragua
Project Title	:	Basic Education
Project Number	:	524-0329
Funding	:	$30 million
Life of Project	:	Seven years (FY 92-98)
IEE Prepared by	:	R.L. Owens/ Angel Diaz USAID/Nicaragua
Recommended Threshold Decision	:	Categorical Exclusion
Bureau Threshold Decision	:	Concur with Recommendation
Comments	:	None
Copy to	:	Janet Ballantyne, Director USAID/Nicaragua
Copy to	:	Richard Owens, USAID/Nicaragua
Copy to	:	Angel Diaz, USAID/Nicaragua
Copy to	:	Wayne Williams, REA/CEN'
Copy to	:	Mark Silverman, LAC/DR/CEN
Copy to	:	Diane Ponasik, LAC/CEN
Copy to	:	IEE File

John O Wilson Date FEB - 5 1992

John O. Wilson
Deputy Chief Environmental Officer
Bureau for Latin America
and the Caribbean

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INITIAL ENVIRONMENTAL DETERMINATION

Project Location:	Nicaragua
Project Title	Basic Education
Project Number:	524-0329
Funding:	$30 million (DA)
Life of Project:	Seven Years
IEE Prepared by:	R.L. Owens/Angel Díaz, USAID/N

Recommended Threshold Decision

A. Project Description: The Project will contribute to the USAID goal of broad-based sustainable growth and the improvement of the quality of life of Nicaraguans. It will do this by helping the GON develop the productive potential of its human resources through an effective basic educational system. The purpose of the project is to improve the quality and efficiency of primary education in Nicaragua.

Thus, the Project will finance a package of inputs aimed at improving the quality and efficiency of primary education. These inputs consist of technical assistance, training, commodities, and operating costs to help the GON address key problems of its basic educational system. Assistance will be provided to: (1) upgrade the institutional capability of the Ministry of Education as the key public agency which must play a lead role in developing a sustained, relevant educational system in Nicaragua; (2) develop a pool of trained teachers with the capability to use effective, modern teaching methods to provide a sound an relevant education to students; and (3) develop relevant curricula and instructional materials consistent with Nicaragua's needs and development objectives.

B. Recommendation: The Project qualifies for a Categorical Exclusion under 22 CFR Section 216.2(C)(2) i, "Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.)".

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C. Concurrence of Mission Director

I have reviewed the above statement and concur in the determination that the Nicaragua Basic Education Project does not require further environmental study, and that a Categorical Exclusion be approved.

Concurrence: Janet Ballantyne
Janet C. Ballantyne
Director

Date: 1/29/92

ENVIRONMENTAL THRESHOLD DECISION

Project Location	:	Nicaragua
Project Title	:	Basic Education
Project Number		524-0329
Funding	:	$30 million
Life of Project	:	Seven Years
IEE Prepared by	:	R.L. Owens/Angel Díaz, USAID/N
Recommended Threshold Decision	:	Categorical Exclusion
Bureau Threshold Decision	:	Concur with Recommendation
Comments	:	None
Copy to	:	Janet C. Ballantyne, Director USAID/Nicaragua
Copy to	:	
Copy	:	
Copy	:	IEE File

_____ Date_____

Chief Environmental Officer
Bureau for Latin America
and the Caribbean

148

APPR: JW {Jw}

DRAFT: JW {Jw}

CLEAR: { }

UNCLASSIFIED

CLEAR: { }

CLEAR: { }

AID/LAC/DR/E:JWILSON:JW:ETDNICBE.CAB
02/05/92 647-8070
AID/LAC/DR/E:JWILSON

CLEAR: { }

CLEAR: { }

LAC/DR/CEN:MSILVERMAN{INFO}
LAC/DR/EHR:LGARZA{INFO}

LAC/CEN:DPONASIK{INFO}

ROUTINE MANAGUA, GUATEMALA

AIDAC MANAGUA FOR R. OWENS AND A. DIAZ, GUATEMALA FOR

E.O. 12356: N/A

TAGS:

SUBJECT: ENVIRONMENTAL THRESHOLD DECISION FOR
USAID/NICARAGUA BASIC EDUCATION PROJECT {524-0329}

ROCAP FOR REA/CEN, W. WILLIAMS

1. LAC DEPUTY CHIEF ENVIRONMENTAL OFFICER, J. WILSON, HAS REVIEWED AND HEREBY APPROVES MISSION REQUEST FOR CATEGORICAL EXCLUSION FOR SUBJECT PROJECT.

2. IEE NUMBER IS LAC-IEE-92-09. COPY OF ENVIRONMENTAL THRESHOLD DECISION IS BEING POUCHED TO MISSION FOR

UNCLASSIFIED

(5) ACTION: AID-2 INFO: AMB DCM ECON

VZCZCMU0309
RR RUEHMU
DE RUEHC #8331 0380132
ZNR UUUUU ZZH
R 0701322 FEB 92
FM SECSTATE WASHDC
TO RUEHMU/AMEMBASSY MANAGUA 0233
RUEHGT/AMEMBASSY GUATEMALA 6654
BT
UNCLAS STATE 038331

07-FEB-92 TOR: 12:03
CN: 07791
CHRG: AID
DIST: AID
ADD:

AIDAC MANAGUA FOR R. OWENS AND A. DIAZ, GUATEMALA FOR

E.O. 12356: N/A
TAGS:
SUBJECT: ENVIRONMENTAL THRESHOLD DECISION FOR
USAID/NICARAGUA BASIC EDUCATION PROJECT (524-0329)

ROCAP FOR REA/CEN, W. WILLIAMS

1. LAC DEPUTY CHIEF ENVIRONMENTAL OFFICER, J. WILSON, HAS REVIEWED AND HEREBY APPROVES MISSION REQUEST FOR CATEGORICAL EXCLUSION FOR SUBJECT PROJECT.

2. IEE NUMBER IS LAC-IEE-92-09. COPY OF ENVIRONMENTAL THRESHOLD DECISION IS BEING POUCHED TO MISSION FOR INCLUSION IN PROJECT FILES. BAYER
BT
#8331

NNNN

Date Received: 2/10

	Act.	Info
D		✓
DD		✓
LA		
EA		
PEPS		✓
GDO		✓
EXO		
CO		
FIN		
PDI		✓
ARD	✓	
Reading File		✓
Chron		✓

Due Date: 2/13
Action Taken:

Initials:

150

med MINISTERIO DE EDUCACION

Managua, 3 de Marzo de 1992
DGP-133-92

Doctora
Janet C. Ballantyne
Directora Misión AID en Nicaragua
Su despacho.

Estimada Dra. Ballantyne:

El Gobierno de Nicaragua a través del Ministerio de Educación ha incluido en sus planes de alta prioridad a la Educación Primaria, sin embargo las limitaciones económicas del País no permiten destinar los recursos indispensables para atender a más de 648,300 niños que se espera tener matriculados al inicio del año escolar 1992.

De acuerdo al diagnóstico realizado el año pasado con el patrocinio de AID, la Educación Primaria enfrenta, entre otros, los siguientes problemas: Aproximadamente el 22 porciento de los que ingresan al primer grado, completan el sexto grado de educación; la calidad de nuestro sistema educativo, expresada en términos de adecuacidad del curriculum, métodos de enseñanza, disponibilidad de materiales para enseñar y otros, es sustancialmente deficiente; mas de una tercera parte de los profesores no están calificados y la capacidad gerencial no está fortalecida.

En este orden, el Gobierno de Nicaragua requiere la cooperación del Gobierno de los Estados Unidos de Norteamérica para el emprendimiento de un proyecto a largo plazo por parte de la agencia para el desarrollo internacional AID, consistente en la realización de una serie de actividades para mejorar la calidad y eficiencia de la Educación Primaria en Nicaragua. El Proyecto destinaría recursos hacia fortalecer la capacidad del Ministerio para tratar los problemas y formular sus políticas institucionales; reforzar la capacitación docente y la transferencia de tecnología pedagógica innovadora; y desarrollar una curricula y materiales de instrucción adecuados a la realidad Nicaragüense.

Despacho del Dr. Humberto Belli Pereira
Centro Cívico, Edificio "J" Telf. 51451 Fax. 51595

El Ministerio de Educación por su parte, está dispuesto a asignar el personal necesario de contraparte que estaría involucrado en el desarrollo del proyecto; destinar el espacio físico para oficinas y el apoyo logístico al grupo de expertos y especialistas contratados para esta finalidad e igualmente prever otras contribuciones en la medida que el presupuesto de la Institución lo permita. Se estima que el costo total de contraparte es aproximadamente US$7.4 millones de dólares, la tabla adjunta ilustra por año lo relacionado.

Sin otro particular al respecto y agradeciéndole su fina atención a la presente, le saludo,

cordialmente,

Dr. Humberto Belli Pereira
Ministro de Educación

MINISTERIO Ministro

cc.: Dr. Erwin Krüger — Ministro de Cooperación Externa
Lic. Ma. Teresa de Bendaña — Secretaría General del MED
Ing. Julio Marenco — Director Gral. de Planificación e Información
Cronológico
Archivo * 133.92

Proyecto de Educación Básica
Contribución Estimada del Ministerio de Educación
(en Dólares de E.E.U.U)

Categoría	Año 1	Año 2	Año 3	Año 4	Año 5	Año 6	Año 7	Años en Total
I. Fortalecimiento Institucional del MED								
A. Personal Contraparte								
— Directores de Planeamiento, Educación, Administración,	25,939	25,939	25,939	25,939	25,939	25,939	25,939	181,574
— Directores de Oficina: Informática, Currículo, Capacitación Docente, Director Primaria, Finanzas, Recursos Humanos, Servicios Generales, Proyectos, Educación Básica	44,755	44,755	44,755	44,755	44,755	44,755	44,755	313,286
— MIS (Personal de Informática)	45,600	45,600	45,600	45,600	45,600	45,600	45,600	319,200
— Finanzas	20,094	20,094	20,094	20,094	20,094	20,094	20,094	140,658
— Recursos Humanos	15,957	15,957	15,957	15,957	15,957	15,957	15,957	111,699
— Almacén	1,182	1,182	1,182	1,182	1,182	1,182	1,182	8,274
— Directores de Cabecera Municipal en entrenamiento								11,742
B. Oficina para Asesores	14,400	14,400	14,400	14,400	14,400	14,400	14,400	100,800
2. Capacitación Docente								
A. Personal Contraparte								
— Formación Docente	25,344	25,344	25,344	25,344	25,344	25,344	25,344	177,408
— Educación Primaria	25,344	25,344	25,344	25,344	25,344	25,344	25,344	177,408
— Salario de profesores en entrenamiento (12,000 profesores, entrenamiento avg de 3 meses c/u salario avg C$660/mes o US$132/mes								4,752,000
— Salario de supervisores en entrenamiento (19 supervisores, entrenamiento avg de 2 meses c/u salario avg de C$2,640/mes o US$528/mes								20,064
B. Oficina para Asesores Approx. 40 mc @ C$150/mc al mes (C$30/mc por mes)	14,400	14,400	14,400	14,400	14,400	14,400	14,400	100,800
3. Desarrollo Curricular								
A. Personal Contraparte								
— Oficina Mat. Didácticos: 18 personas, 50% de su tiempo (C$1,320/mes o US$264 c/u)	25,344	25,344	25,344	25,344	25,344	25,344	25,344	177,408
B. Oficina para Asesores Approx. 100 mc @ C$150/mc x mes (US$30/mc x mes)	36,000	36,000	36,000	36,000	36,000	36,000	36,000	252,000
4. Oficina para Asesores a corto plazo Approx. 40 mc @ C$150/mc x mes(US$30/mc x mes)	14,400	14,400	14,400	14,400	14,400	14,400	14,400	100,800
5. Salón de Conferencia para Asesores Approx. 30 mc @ C$150/mc x mes(US$30/mc x mes)	10,800	10,800	10,800	10,800	10,800	10,800	10,800	75,600
6. Compra de 60 motocicletas para supervisores locales approx. US$1,667 cada una		100,000						100,000
7. Otro Apoyo Logístico: combustible, 80 galones diesel/mes. @ C$ 8/galón o US$1.20/19 veh.	21,888	21,888	21,888	21,888	21,888	21,888	21,888	153,216
8. Otro Apoyo Logístico: combustible, 20 galones de gasolina/mes. @ C$10/galon o US$2.00 por 60 motocicletas		24,800	24,800	24,800	24,800	24,800	24,800	172,800
Total	341,447	470,247	370,247	370,247	370,247	370,247	370,247	57,448,738

mc=metro cuadrado

DETAILED ANALYSES -- ANNEX 8

A. Economic/Financial Analysis

1. Summary

This section examines the costs and benefits associated with the Basic Education (BASE) Project, and concludes that the expected benefits outweight the direct and indirect costs of the project. The conclusion of the analysis is that there is solid evidence to suggest that BASE is a worthwile investment for Nicaragua, and that the medium and short-term outcomes warrant investing limited resources in this activity.

The project will set in place improvements in system's efficiency that could lead, over a 10-year period, to a 13% increase in the percentage of students who graduate from primary education and to substantial savings in internal efficiency, such as more than doubling the percentage who graduate without repeating. It is expected that BASE will contribute to increase the average number of years of primary education approved from 3 to 4 for all those who graduate. As a result of the project the cost per graduate will be reduced by 19%. The bill for repeaters will go down from 26% of all primary education expenditures now to 13% of all primary education expenditures in the year 2000.

Given the emphasis of BASE on sustained institutional development and capacity building, rather than on the provision of deliverables, the analysis of benefits will be done over a timeframe exceeding the LOP. A conservative analysis looks at the impact over the next 10 years, though the benefits of enhanced institutional capacity should be understood to be sustained over time.

Though the benefits of increased external efficiency resulting from an increase in the population completing primary school cannot be documented given the lack of information on salary levels by levels of education in Nicaragua, this section presents indirect evidence supporting the assumption that these gains to the productivity of the labor force are in Nicaragua at least as high, if not higher, as the gains in other countries in the region.

Later sections discuss evidence from Nicaragua supporting gains in health and nutrition which would be derived from increases in the number of primary school years approved.

The discounted savings in internal efficiency in the system can be documented and, over a 10 year period, are estimated to equal 71% of the costs of the project.

This evidence alone suggests that the benefit cost ratio of this

project would be positive and exceeding the opportunity cost of capital in Nicaragua.

In addition there are important benefits of enhancing the quality of the labor force and the education level of the population in a society that is attempting to consolidate democracy, though the internal rate of return of those cannot be quantified, this section substantiates these expected benefits to economic development in the current context in Nicaragua.

2. The contributions of Project BASE.

The three components of BASE will address three critical areas of the efficiency of Nicaragua's education system. This section examines the expected contributions of each of them, and their implications for sustainability and recurrent cost implications.

2.1. Institutional Development.

This component will address two major sources of inefficiency in the current system: reforming the policy environment and increasing implementation capacity.

In spite of policy statements suggesting that primary education is a policy priority of the GON actual educational expenditures in that level by August of 1991 were only 21% of all education expenditures even though 32% of the education budget had been allocated to this level this year. By contrast, expenditures in Higher education had taken 29% of all education expenditures in the same period, even more than the 28% that had been allocated to this level[1]. This suggests lack of policy direction and/or low implementation capacity to address the urgent needs of the primary sub-sector.

The Institutional Development component of BASE will develop capacity in the MOE for policy development and establishment of priorities, and reconciling those with available resources. Since all the interventions in this domain involve capacity building and contributing to establish new systems for policy design and policy dialogue, it is expected that the changes introduced by BASE will be sustainable at no additional costs to the MOE beyond the LOP.

This component will also improve general administration and management procedures aimed at using scarce resources more efficiently, especially in the key areas of instructional delivery supported by theproject. Of particular importance is the

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[1]Labadie, G. Nicaragua Public Sector Expenditure Review. The World Bank. November 1991. p. 6.

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development of the unit for planning and coordination of foreign-aided projects. Since Nicaragua is likely to rely on foreign assistance to finance educational initiatives over the medium term, this intervention will increase the rational use of those resources, promoting donor coordination and integration, as well as the integration of foreign-aided interventions with the strategic priorities of the Ministry.

2.2. Teacher Training.

The improvement of certification programs in the teacher training schools will address the low quality of education in the system, hence contributing to help more students learn increasing the number who graduate from sixth grade and the cognitive abilities of those who graduate.

Even though not all the teachers will be trained through this component, it is expected that the focus on developing institutional capacity to train teachers of better quality will, beyond the LOP, translate into continuing producing teachers of better quality. Since BASE will focus this intervention in the existing normal schools there are no additional recurrent cost implications of this component.

The focus of teacher training in improving teachers' abilities to handle multigrade classes and to teach reading and writing in the lower grades of primary education addresses two of the prime factors contributing to lower learning and repetition in the region. A study in Honduras on the factors that explain repetition in primary school found those rates to be much higher at the lower levels, and found levels of reading ability to be a principal explanation of repetition. The same study found that students of teachers teaching more than one grade were especially handicapped as their teachers did not know how to use textbooks effectively[2].

2.3. Curriculum Development.

There will be two key aspects of this component: a) immediate delivery of teacher guides to facilitate the use of the textbooks, especially in rural areas and for multigrade teachers and b) development of capacity to develop relevant curriculum focusing first in Spanish.

Research on the factors contributing to student achievement shows that textbooks are one of the key factors that promote

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[2]McGinn, N. et al. 1991. Asistir y Aprender o Repetir y Desertar. Un estudio sobre los factores que contribuyen a la repitencia en la escuela primaria en Honduras. Cambridge, Mass. Project BRIDGES.

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student learning[3], however learning is promoted not by the availability of the textbooks but by their use. Preliminary results from USAID's funded education project of textbooks in Honduras suggest that when textbook use is not specifically assisted textbooks fall short of expected results. Though textbook provision in primary schools of Nicaragua has already been made with USAID's assistance, BASE will enhance their contribution by providing teachers skills to use them effectively.

As a part of long term institutional development, BASE will develop the capacity to produce curriculum materials, focusing initially on spanish, a critical subject as learning in other subjects and other grades is largely dependent on reading skills. This will contribute to Nicaragua's ability to develop it's own textbooks for primary schools.

3. Expected benefits from increases in the Education Level of the Population in Nicaragua and from BASE's interventions.

Current research has established that education is a critical factor to increase economic productivity. Early work on this subject found education to be the crucial factor to explain the rapid economic recovery of Europe after World War II, showing that economic growth could not be accounted for just by increases in investments or in the number of people in the labor force[4].

These constributions to aggregate economic growth are supported by evidence on the contribution of education to worker's productivity, measured either as the marginal returns to their wages, or measuring it directly. A study that examined the impact of primary education on farmer's productivity showed that four years of primary education provided the minimum literacy and cognitive skills that allowed the adoption of new productive technologies, increasing productivity by 9% on average[5].

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[3] Schiefelbein, E. and J. Simmons. 1981. The determinants of school achievement: a review of the research for developing countries. Ottawa: International Development Research Centre.

[4] See, for instance, Denison 1967. Why growt rates differ: post-war experience in nine western countries. Washington, D.C. The Brookings Institution. See also Schultz, T. 1961. "Education and economic growth" in Readings in the Economics of Education. M. Bowman et al. (Eds.) 1968. Paris. UNESCO.

[5] Lockheed, E., D. Jamison and L. Lau. 1982. "Farmer education and farm efficiency: a survey" Economic Development and Cultural Change. World Bank Research Paper. John Hopkins.

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Another study on the effects of on the job training in Peru showed that this was most effective on workers with higher levels of basic education[6].

The contributions of education to productivity of workers have also been assessed examining the increases in wages associated with increased levels of education, the comparisons of discounted costs and benefits associated with higher levels of education show, consistently accross countries, that higher levels of education yield higher wages, this impact is higher the lower the level of education. In competitive economies the marginal returns to increased education levels are assumed to reflect the marginal increases in productivity attributable to the increase in education levels[7]. A recent study on the rates of return to education in Venezuela shows that primary education has returns of 24%, secondary education 12% and higher education 15%[8].

It is also known that education, through its contribution to the quality of the labor force, increases the returns to investments in capital and that is there is an interaction between returns to capital investments and levels of education of the labor force[9].

Besides the contributions to economic productivity, education is believed to contribute to social and political development. A functioning democracy requires educated citizens who can make informed choices and participate in the increasing roles that a pluralistic society expects of the community. In addition, education contributes to social development:

> "Schooling means more than a contribution to economic development. In most societies, the level of education determines a person's material and social success...Schooling expansion is seen politically as a way to increase social mobility and a better income

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[6] Arriagada, A. 1989. "Occupational training among urban peruvian men: does it make a difference?" Paper presented at the Annual Meeting of the Comparative and International Education Society. Harvard Graduate School of Education. Cambridge. March 1989.

[7] For an analysis of cross-country evidence on this subject see Psacharopoulos, G. 1973. Returns to Education. Amsterdam. Elsevier.

[8] Psacharopoulos, G. and F. Steier. 1987. Education and the Labor Market in Venezuela 1975-1984. World Bank. Mimeo.

[9] World Bank. 1980. World Development Report 1980. Washington, D.C. World Bank. p. 48.

distribution"[10].

Education contributes to social development as higher levels of education of mothers are associated to increased health and reduced mortality and fertility rates[11].

Though there is no evidence that would help to document these contributions of education, and especially of primary education, to the economic development of Nicaragua, the evidence presented from other countries, and indirect evidence available for Nicaragua would support that the benefits which can be expected from increasing the education levels of the population are as large in Nicaragua, if not larger than in other countries.

The future economic and political development of Nicaragua rests on resumed economic growth. In an increasingly global economy, and given current trends to develop regional blocks (such as those resulting from the trade agreement between the US and Mexico) it is clear that Nicaragua's challenge is to increase the productivity of its labor force to levels comparable to those of other countries in the hemisphere, and eventually, to those of the most dynamic economies in the world.

The information available, however, suggests that Nicaragua is especially handicapped by a labor force of minimum education levels. The most recent census, carried out in 1971, shows that as many as 37% of the labor force aged 15-19 had cero schooling, and 58% had only complete or incomplete primary[12]. These figures place Nicaragua in a very unfavorable position relative to other countries in the region. This is supported by the following table:

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[10] Carnoy, M. 1986. "Education reform and planning in the current economic crisis" Prospects. 16(2):205-214. p. 206.

[11] World Bank. 1980. World Development Report 1980. Washington, D.C. World Bank. p. 50.

[12] This cohort would still be participating in the labor force in 1991, as the 35-39 age group, they are also more likely to have higher levels of education than older age groups. It is possible that a larger number of people have had access to school after 1971, given the current efficiency levels of the education system, however, since most of the students do not complete primary education, it is likely that most of those who have had some primary education have not completed this level.

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Table 1. Percentage of the population with access to primary school.

Y	Year	Age	% of the Age group with Primary Ed.or less No Schooling	Incomplete	Complete Prim.
Nicaragua	1971	15-19	36.9	57.9	==>
Costa Rica	1973	15-19	3.4	25.1	35.9
Cuba	1981	15-19	1.0	5.3	11.1
Dom. Rep.	1970	15-19	21.0	43.5	8.2
El Salvador	1980	10>	30.2	60.7	==>
Guatemala	1973	15-19	87.7	==>	==>
Haiti	1982	15-19	44.1	39.5	==>
Honduras	1983	15-19	11.3	60.7	==>
Mexico	1980	15-19	14.2	20.2	20.5
Panama	1980	15-19	4.7	12.3	24.2
Argentina	1980	14-19	1.3	21.7	23.8
Bolivia	1976	15-19	14.4	36.9	==>
Brazil	1980	15-19	17.0	61.5	9.4
Chile	1982	15-19	1.6	47.8	==>
Colombia	1973	15-19	11.3	52.7	==>
Ecuador	1982	15-10	7.3	8.3	35.8
Paraguay	1982	15-19	4.4	36.6	24.6
Peru	1981	15-24	7.5	19.9	15.6
Uruguay	1975	15-19	1.1	16.5	22.3
Venezuela	1981	15-19	7.6	42.1	==>
Canada	1981	15-19	0.2	2.1	4.1
USA	1981	25-29	0.7	==>	56.1
Hong Kong	1981	15-19	1.0	2.5	12.1
Japan	1980	25>	0.4	==>	45.3
Korea	1980	15-19	0.5	12.7	==>
Singapore	1980	25-29	14.7	56.2	==>
Thailand	1980	15-19	3.3	60.9	8.9

Source: UNESCO. Statistical Yearbook 1989. Paris.
Note: The difference between 100% and the addition of columns 3, 4 and 5 is the percentage of the age group with more than primary education.

The levels of education of Nicaragua's population are also lower in rural areas than in urban areas. A household survey of 702 women in Nicaragua (85% of whom lived in urban areas with an average age of 30) showed that they had, on average, completed 5

years of school[13].

A related analysis with the same data showed that schooling contributes to increases in women's health and nutrition. In Nicaragua more educated women are healthier and better nourished, even after controlling for other socio-economic back ground variables[14]

Given these figures it is reasonable to expect that improvements in the quality of primary education, leading to an increase in the number of people who graduate from primary school and to an increase in the abilities of those who graduate, would yield substantial increases in the productivity of the Nicaraguan economy, and thus to higher wages. This improvement in the quality of the labor force would also improve the returns to other investments in the Nicaraguan economy. One might argue that the improvement of the quality of the labor force is a pre-condition for Nicaragua's participation in global markets and increase in exports earnings.

Besides these economic benefits the stabilization of an open economy and polity in Nicaragua will require a minimum base of common attitudes, values and behaviors among all Nicaraguans, to which an increase in the quality of education could contribute.

4. Expected benefits from BASE's contribution to reducing internal inefficiencies in the education system.

The primary education system is highly inefficient in Nicaragua. Analysis of the flow of students through the system using officially reported repetition and dropout rates indicates that only 22% of all students who enter primary education ever complete this level, only 10% graduate without repeating a grade. Among those who graduate only 45% will do it without repeating. This means it takes 16 years to produce a 6 grade graduate. On average students spend 4 years in primary school and approve 2. On average it takes 3 years for a student to pass a grade. Given current costs of primary school students[15] it currently costs the

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[13] Behrman, J. and B. Wolfe. 1987. "Investments in Schooling in Two Generations in Pre-Revolutionary Nicaragua" in Journal of Development Economics 27(1987):395-419.

[14] Behrman, J. and B. Wolfe. "Does More Schooling Make Women Better Nourished and Healthier? Adult Sibling Random and Fixed Effects Estimates for Nicaragua." Fall 1989. The Journal of Human Resources. 24(4):644-663.

[15] I have estimated these costs using a unit cost of US$ 38.7 per student in primar education. See Labadie, G. 1991. Nicaragua Public Sector Expenditure Review: Education. World Bank. p. 7.

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system US$ 626 to produce a primary school graduate.

The system spends US$ 4,051,931 (or 17% of total primary education expenditures) in students who are repeating a grade. Given that there is virtually no remedial instruction and that a repeater has to get a second chance at the education that did not work the first time around, we can consider expenditures in repetition wastage of the system, as the opportunity cost of these resources could have been either to educate the same children at higher grades or to educate other children. To put it differently, with all the money the system now spends on repetition, it could have a complete additional primary education budget every 6 years.

This should be read not as suggesting that repeaters should be kicked out of the system to save the resources now spent on them, but as implying that with the same resources the system now has it would be possible to provide substantially higher levels of education if repetition rates could be reduced.

Another cost associated with repetition rates stems from the fact that students who repeat are more likely to repeat and eventually drop-out, hence adding to the pool of the labor force with very low levels of education. This was found in a recent study on repetition in neighboring Honduras[16].

However, it is possible that reported repetition figures in Nicaragua are lower than true repetition rates[17]. Assuming that wastage rates (the sum of repetition plus dropout) equal those currently reported, but that the current system underestimates repetition and overestimates dropouts (this scenario is more fully developed and explained in the indicators section of this paper) we obtain different estimates of internal efficiency[18]. This assumption is granted by the large number of overage

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[16] McGinn et al. 1991. Attending and Learning or Repeating and Leaving. A study of the determinants of grade repetition in Honduras. Cambridge, Mass. BRIDGES Project. The same finding had been established by Carlos Muñoz Izquierdo studying repeaters in Mexico, in what he called the syndrome of school failure ('Sindrome de Fracaso Escolar').

[17] Ernesto Schiefelbein, who has studied the problem of repetition for a long time in Latin America has consistently argued that official repetition figures underestimate true figures. This is consistent with what was found in the Honduran study (McGinn et al 1991).

[18] We have assumed that repetition rates are 44%, 21%, 18%, 17%, 12% and 4% in grades 1 through 6, while dropout rates are 12%, 12%, 10%, 16%, 15% and 0%.

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children in all grades, which is 28% for first, 42% for second, 42% for third grades[19]. These figures are twice as high in rural as urban areas, suggesting that repetition rates are also higher in rural areas.

With this, perhaps more realistic, scenario, an analysis of student flows shows that of all students who enter primary education only 39% ever finish, only 10% do it without repeating which is 25% of those who complete primary school. It takes 13 years to produce a graduate, on average students spend 5 years in primary school, approving 3 grades and an average student spends 2.2 years per grade.

In this scenario a primary school graduate costs to the GON US$ 518, but the total bill for repeaters is US$ 6,365,689, or 26% of all expenditures in primary education.

It is clear that a project aimed at improving promotion rates would yield substantial benefits in the forms of savings to the system.

An analysis of the expected impact of the different components of the project could, by the year 2000, reduce repetition rates by 50% for grades 1 to 3, and by 20% for grades 4 and 5, and have no effect in repetition rates in grade 6. We also anticipate that the project will have no effect on dropout rates. This is a conservative scenario, in order to obtain the minimum expected savings in internal efficiency that could be accrued to the project. Assuming that the discounted value of unit costs over the next ten years for each year will be equal to present unit costs, and that those terminal target repetition rates would be achieved in gradual linear changes over time, the project could save the education system US$ 21,196,000 in 10 years solely by its effect on repetition. This is 71% of the project costs.

More important, perhaps, are the effects of this changes in internal efficiency in the contributions of the education system to the quality of the labor force. By the year 2000, and taking into account only the expected contribution of BASE 44% of all students entering primary school will graduate, 21% will do it without repeating, or 48% of all who graduate. It will take 11 years to produce a primary school graduate, and on average students will stay 4.8 years in primary school but will approve 3.6 (as opposed to staying 5.2 but approving only 3.3 in the previous scenario). It will take 1.8 years for students to pass one grade and a primary school graduate will cost US$422 (at 1991 prices, as opposed to US$518 now). The total bill for repeaters

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[19] UNESCO. Situación Educativa de América Latina y El Caribe 1980-87. Santiago, Chile. UNESCO-OREALC. p. 330.

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will be US$ 3,901,662 per year or 13% of all primary education expenditures, still significant, but only 50% of the bill for that purpose if the project does not take place.

These changes will have reduced the gap between Nicaragua's education system with respect to other education systems in the region, to achieving average. On average, in Central America, 55% of students who enter primary school graduate and it takes 10 years to produce a primary school graduate.

5. Project Costs.

The Direct Costs of BASE are equal to US$30 million. Indirect Costs are the opportunity cost of that sum, or the alternative uses to which it could have been put.

There are no indirect costs in the forms of private contributions, since the biggest component of this cost is the earnings students would forego for attending school rather than entering the labor force. Since BASE has no expected impact in access, or in increasing the number of years spent in school (but rather the number of grades approved in the same number of years) there are no additional costs of this nature associated with the project. This assumes that tuition fees will not be implemented in the first six years of primary education[20]

There are no additional costs to the Ministry of Education as a result of this project since the focus of the interventions is on developing institutional capacity to do differently what the MOE is already doing. The personnel costs required for counterpart participation in the activities are assumed to be covered through more efficient utilization of existing human resources (reallocation of staff to new activities).

6. Conclusion.

Given the lack of information that would allow a precise quantification of the net benefits resulting from increases in wages due to increases in the number of grades approved a precise benefit-cost ratio cannot be computed. Benefit-cost ratios for similar projects in neighboring countries are quite high: 2:1 in Honduras and 3.4 in Guatemala.

The analysis of the evidence on benefits and costs

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[20] This analysis assumes that one of the first activities of Technical Assistance in Policy Analysis will be to address to equity implications of introducing user fees at the primary school and that, should the measure be regressive, that this policy will be reversed.

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associated with BASE suggests that the Project would be a valuable use of resources from the point of view of Nicaragua's economic and social development.

B. Policy Framework

1. Background.

Nicaragua is undergoing major reforms as a result of the recently elected (April 25 1990) government's initiatives to establish a pluralistic system, to reactivate the economy and to consolidate peace. This is the broader context within which the education policy environment has to be assessed.

This section reviews the education policy agenda of the Government of Nicaragua (GON), and its prospects, and discusses the fit between the proposed USAID education project (BASE) and national policies. The assumption that underlies this analysis is that the likelihood that BASE will contribute to long-term institutional development, and that the activities initiated under the Project will be sustained, will be a function of the match between the Project's objectives and design and the government education policies. Some suggestions are also offered to promote the sustainability of government education policies.

This section is based on a review of education policy documents and in interviews with the Minister of Education, Dr. Humberto Belli, and four of his advisors: José Sandino, Francisco Arellano Oviedo, Raul Quintanilla, and José María Torres. In addition several senior staff of the Ministry were interviewed: Julio Marenco, Director of the soon to be created General Directorate of Information and Planning, José Celaya, Director of Projects in the new Planning Directorate, and Violeta Barreto current Director of Planning and Development.

The analysis of the education policies of the GON during the last year, and of the process by which those policies were shaped reveals an array of policies, with limited priorization, contradictions and lack of knowledge or confusion among senior ministry staff about the Ministry of Education (MOE) priorities.

Major factors in this disarray have been the limited participation of key figures in the MOE in policy design, lack of opportunities to discuss and disseminate policies and lack of institutional capacity for policy analysis in the Ministry.

In addition, key Ministry staff have been primarily occupied in responding to hostilities from the main oposition union (ANDEN), which have placed the leadership of the Ministry in a 'reactive' mode, limiting their ability to focus their attention

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in developing and carrying out their own agenda.

There are some positive recent signs in the direction of establishing priorities and opportunities for broad negotiation and communication of policy priorities (see the discusssion of the National Education Congress below). Some immediate needs to clarify and stabilize the policy environment are to strengthen the institutional capacity of the MOE to carry out education policy analysis, to institutionalize mechanisms of consultation and negotiation of policies and to professionalize the Ministry.

2. Policy Priorities.

The GON has an explicit commitment to education. This commitment has a broad base of support which extends beyond the government coalition as suggested by the fact that education is not one of the many themes included for discussion and negotiation in the current policy dialogue the GON is carrying out with the main government coallition and with the FSLN. This broad based support is suggested also by the fact that the GON has been able to carry out transfers of expenditures from Defense to the Education Sector. There have been increases in education expenditures relative to government expenditures in the last two years.

Education expenditures as a percentage of total government expenditures increased from 8.8% in 1989 to 14.6% in 1990 and to 18% in 1991. Defense expenditures, in contrast, declined from 39% of government expenditures in 1989 and 1990 to 20% in 1991[21]

There are recent indications that GON is giving priority to primary education, as suggested in a speech of the Minister of the Presidency and of the Minister of Education at the National Education Congress two months ago. The sare of primary education in the total education budget increased from 26% in 1990 to 34% in 1991[22].

As mentioned earlier, a review of recent policy documents and interviews with key staff in the MOE suggests a broad, sometimes conflicting, education agenda. Only recently has the Minister stated the need to establish priorities and proposed some, though there is no evidence of the degree to which the need to prioritize has been internalized by even his closest advisors. The tradition in the Ministry in policy formulation is to produce 'wish lists' with limited concern for resource scarcity, a tradition highly disfunctional in the current climate of severe

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[21] Unpublished data provided by Ministry of Finance.

[22] Labadie, Gaston. Nicaragua Public Expenditure Review: Education. The World Bank. November 1991. Table 3.

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resource constrains.

There are two set of broad guidelines for education policy: the current constitution (approved in 1987) has a specific chapter in education and the program of the current government coalition. More detail is presented in an education policy document prepared at the beginning of this government's term in office.

Articles 116 to 128 of the Constitution define broad education goals[23]. These are general enough that their interpretation would leave enough room for a wide range of policies. Article 121 states that basic education is free and mandatory, this mandate would be in conflict with a proposal of mandatory tuition fees at this level. The Constitution does not give priority to any particular level or type of education. Article 125 states that Higher education is financially autonomous, this might leave room for initiatives aimed at cost recovery at this level.

Of greater specificity is a document produced by the Ministry of Education, with the title "Lineamientos del Ministerio de Educación en el Nuevo Gobierno de Salvación Nacional". This document begins with an acknowledgment of the efforts in education of the previous government, sketches the main problems of the education system and proposes 8 principles for educational development. The main aspects of the education crisis identified by this document are the deterioritation of qualitative and quantitative indicators. The report mentions that net enrollment ratios in primary education are only 76%, and mentions also extremely high repetition and illiteracy rates. High levels of untrained teachers and the drain of teachers out of the system are also mentioned as crucial problems. The document also points to the poor conditions of the physical plant and the lack of textbooks and teaching materials. Finally the diagnosis section points to the low levels of learning and distortion in values education.

The four general policy guidelines are:

1) Broaden education from instruction to include development of values.
2) Educate for democracy and peace.
3) Educate for development.
4) Educate for family responsibility.

The eight specific policies are:

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[23] Constitucion Politica de Nicaragua. Editorial Amanecer. 1987.

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1) Curriculum reform. To eliminate political contents, especially in the areas of History, Sociology, Political Economy and Social Sciences. Reinforce weak subjects such as Math, Sciences and Spanish. Add some subjects such as Civic and Moral Education, Phylosophy and Computing.

Revise the curriculum of basic education which is excessively geared to prepare students for higher education. Enhance contents related to work and family life.

2) Academic liberalization. Consider eliminating mandatory textbooks and making teaching programs less detailed and rigid.

3) Professionalize all teachers. This would require increasing teacher salaries. Establish professional criteria for teacher promotion.

4) Incentives to increase achievement of students and teachers. Introduce evaluation systems and rewards for the outstanding teachers. Also establish model schools in the Departmental capitals.

5) Democratize and increase role for parents. Increase parental participation in the new study programs and in the management of the schools.

6) Expand the following areas: Basic (first 4 grades) and pre-school education, literacy, adult education, technical and vocational education.

7) Support to private education. Encourage the development of private schools.

8) Bilingual education. Support programs for bilingual and intercultural education, involving leaders of the indigenous communities.

Besides these policy documents, the MOE is in the process of preparing a plan for educational development ("Plan Nacional de Desarrollo Educativo 1992-1996"). This policy has not yet been officially approved and the Minister intends to revise it to include the recommendations of a National Congress of Education which took place last october.

The results of the National Education Congress are another important source of policy guidelines, as this event was designed to inform government education policy. However, there is no document yet that translates the recommendations of this extensive consultation into policies. The various drafts produced after the consultation at each level are very extensive lists expressing needs and recommendations, without indications of

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priorities and without reference to mechanisms or sources of finance.

This may explain the multiplicity of interpretations obtained now when one asks senior Ministry Staff what are the educational priorities of the government.

The results of this consultation could be used to enrich policy dialogue, but they would be hard to translate directly into policies as there is no indication of priorities among all the items or of their costs. However, the detailed lists of information for each area, could be used in the design of specific strategies for educational improvement. There is, for instance a detailed list of recommendations regarding curriculum.

Two important documents --as they express GON policy-- presented at this Congress are the speeches of the Minister of Education and of the Minister of the Presidency. The Minister of Education emphasized the importance of establishing priorities, given the limits of resources. Minister Belli emphasized at this meeting the importance of using criteria of eficiency and equity to set policy priorities. He also stated that the priorities of the MOE should be primary education and the education of those who live in rural areas. In this speech the Minister also mentioned the need to address the problem of untrained teachers, and the higher opportunity costs associated with attending normal schools vs. receiving training while in-service.

The Minister of the Presidency, Antonio Lacayo, also spoke at the National Education Congress, and stated that education was the first priority of the government, and specifically primary education. According to Mr. Lacayo's figures education expenditures in 1991 (including university expenditures) were more than 20% of all government expenditures, and the highest item in the government budget.

The General Directorate of Planning of the MOE is in the process of preparing a medium term plan: the National Education Plan 1992-1996[24]. This document adopts the policies presented in the "Lineamientos generales..." and further develops specific objectives for each of them. There is, however, no sense of piority among these objectives, there are no quantitative targets or schedules and there is no analysis of the relationship between proposed programs and resources. The plan develops programs for each level of education, the general format is to describe the program, the general and specific objectives, the specific actions to be taken and projected targets without indicating how those targets will be achieved.

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[24] Plan Nacional de Desarrollo Educativo 1992-1996. Ministerio de Educación. Nicaragua. Septiembre 1991.

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For example, the program for primary education states the general objective of enhancing the quality of the educational service, giving priority attention to the early grades and to the overage children[25]. The specific objectives mentioned include increasing enrollment and promotion rates, improving accelerated primary school curricula for overage children, reform primary school curricula, improve organization of school work, expand textbook provision, improve teacher effectiveness, improve the physical plant, promote curricular integration accross levels, improve the quality of bilingual education, support teachers through enhanced supervision[26].

In addition, the Planning Directorate has prepared a set of project profiles to request funds for specific projects ("Perfiles para la Cartera de Proyectos"). The projects included are the most concrete expression of policy priorities, they are organized around three priority areas: Qualitative development of education, physical plant and equipment, educational planning.

These projects have a total cost of US$ 118,736,182 of which US$ 109,431,552 are expected to be external financing, and the remaining US$ 9,304,630 internal financing. All of these projects are expected to begin in January of 1992.

The projects are:

	(Costs are in Thousands) Total Cost(US$)	External
Qualitative Development		
1. Improvement of educational quality.	2,136	1,680
2. Educational textbooks and materials	5,088	5,039
3. Educational materials	212	160
4. Access to special groups	7,116	.451
5. Statistics and information system	215	189
Physical Plant and Equipment		
1. Community involvement in school repair	212	132
2. Constructions and repairs of schools	54,841	54,814
3. Improvement of normal schools	9,204	7,979
4. School supplies and furniture	28,019	28,005
5. Equipment of MED offices	10,425	10,417
Educational Planning		
1. Enhancement of planning capacities	210	185
2. Modernization of administrative procedures	1,059	392

[25] Ibid. page 35.

[26] Ibid. pp. 36-37.

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There is no indication of how the project profiles relate to the medium term plan which is still in process.

The lack of a unified vision of primary education as a policy priority that can drive the sector has implications for implementation. For example, it is surprising that given the magnitude of the needs in primary education only 21% of all education expenditures incurred between January and August in 1991 had gone to this level, while 32% of expenditures had been allocated to this level. By contrast, Higher education had taken 29% of all education expenditures in the same period, even more than the 28% that had been allocated to this level[27]. The gap in the ability of both levels to use up the resources allocated them suggests that the development of primary education could benefit from receiving a further sense of priority.

Summary and Recommendations regarding policy priorities.

The extensive list of priorities presented in this document contrasts strikingly with the resources available to the education system. This suggests both the need to establish priorities and to prepare the MOE to effectively obtain and manage substantial foreign assitance to close the current gap between needs and resources.

It would be very valuable to have the senior ministry staff participate in a process that examined the consistency accross policies and strategies (a matrix of policies by strategies) to identify strategies with potential to address more than one policy domain as a means to prioritize strategies and to examine the feasibility of the targets that are set. This exercise should be done by a wide group of people with key responsibility in policy implementation (such as all the General Directors and Directors of the Ministry) in order to clear up any ambiguity regarding what the priorities of the government are.

After this process of policy analysis appropriate communication and dissemination mechanisms should be set up to inform all relevant actors of the GON policy. This could be presented as an outgrowth of the National Congress, which would be along the national lines of 'concertacion' and broad based policy dialogue and negotiation.

Given the focus of the previous regime in expanding quantitative access to primary education when enrollments in primary education grew at an annual rate of 9.1% while population

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[27]Labadie, G. Nicaragua Public Sector Expenditure Review. The World Bank. November 1991. p. 6.

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grew at 3.4% per year between 1978 and 1987[28] it would be advisable to concentrate resources in qualitative improvement to increase the opportunities to learn for those students who are currently in the schools.

This would be opposite to the current priority in the "Lineamientos..." which refers to:

> 6) Expand the following areas: Basic (first 4 grades) and pre-school education, literacy, adult education, technical and vocational education.

I recommend a specific focus on primary education, specifically in increasing the quality of instruction in the first four grades, focusing in developing reading and writing ability and in training multigrade teachers. If improving access is not a priority, it is important not to introduce disincentives for students to attend school. The proposed student fees on a voluntary basis in primary education should be studied carefully, analyzing their impact in participation rates.

The proposed policy of municipalization should also be examined. At the current stage of development of Nicaragua's education system it would be sounder to first deconcentrate responsibilities, and to decentralize only at a later stage. Decentralization efforts could be begun <u>at the regional, not municipal</u> level. Rather than giving municipalities responsibilities in areas such as selecting textbooks or finance, I recommend decentralizing responsibility for school maintenance, transfering property of public school sites and buildings to the Municipios. Municipalities could be in charge of promoting community participation in repairing and maintaining the schools. A scheme of maintenance agreements ("Convenios de Mantenimiento") could be set up between the municipality and each school ("Comunidad Educativa") involving parents and teachers, where the municipality agreed to partially fund materials for school repairs and the community would provide labor. This might a mechanism to increase private contributions with less potential to affect access than charging tuition fees.

Another type of function which could be decentralized to the municipal level is to set up exchange centers to recycle the textbooks in primary schools, a "Banco del Libro" scheme. This scheme would be too cumbersome to be managed at the central level, and perhaps too inefficient at the school level --because there might be too few students to get enough flows of usable boks--. The municipality might be the right level to do this. Students in first grade would be given textbooks in grade 1, and

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[28]UNESCO. <u>Situación Educativa de América Latina y el Caribe, 1980-1987.</u> Santiago, Chile. UNESCO-OREALC. p. 317.

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then in subsequent grades only provided they can turn in the books of the previous year. This "Banco del Libro" would have resupply books to get out of circulation books that were not in condition to be used, and could provide services of bookbinding to recycle the used books. It is not expected that all books could be recycled this way, but even if only 80% of them were recycled each year this would cut recurrent costs of maintaining books substantially (80% of the books would have a life of 2 years, 64% would have a life of 3 years, 51% would have a life of 4 years, 33% of the books could have a life of 5 years, at which time the books should probably be replaced).

To insure sustainability of the textbook project, the MOE should take responsibility to replace the books that are lost in this system. The MOE currently charges for textbooks and recovers a part of the costs this way, these funds could be used for replacement. Also the MOE could mobilize the private sector to contribute for textbook replacement. This activity should become a line item in the budget of the MOE and should not be funded with foreign assistance.

Municipalities could also identify candidates for teacher training and certification, but the financing and design of the training should remain at a higher level, if not at the Central level at least at the Regional level.

3. Policy Process.

At the national level there is a social cabinet in charge of social policy formed by the Ministers of Education, Health and Work. In theory the Minister of Education is the coordinator of this group, in practice it has been coordinated by the Vice-Minister of the Presidency, who has a staff to run it. The Minister of Education expressed he is currently too busy to take a leadership role in this group.

The Minister of the Presidency (Antonio Lacayo) is reportedly very favorable to education as suggested by his participation in the recent National Education Congress and by his speech indicating that primary education was a priority of the GON. In spite of this priority, the policy of the GON is to gradually reduce recurrent expenditures, which has a disproportionate impact on education given the large wage component of the education budget.

Policy making within the MOE has taken place under the strong leadership of the current Minister with limited participation of other senior staff.

Once the new government took over, the MOE produced a document "Lineamientos del Ministerio de Educacion en el Nuevo

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Gobierno de Salvacion Nacional". A key figure in the preparation of this document was the current Minister of Education, then Vice-Minister of education. Minister Belli reports he consulted the General Directors of the Ministry and other representatives of different groups in the preparation of the document. This document was debated in Congress.

From this document the Direction of Planning and Development began the preparation of a Mid-Term education plan, with specific programs and activities. Directors of the relevant Units were consulted in the preparation of the plan.

Until august of this year the Minister used to meet weekly with his advisors, Director Generals and, occasionally the Directors of specific departments (Consejo de Direccion Ampliado). Since talks about reorganization within the Ministry began these meetings became more infrequent. Senior staff and advisors perceive that the circle of those who have an input in educational policy has shrunk.

There is also an advisory board, the Consejo Superior de Educacion, which includes representatives of the University, private sector. There are not, however, representatives from Catholic Church, who has a significant role in education in Nicaragua. The Minister says he consults this board when he needs to and that he practices extensive informal consultation on specific issues to members of Congress, the government and relevant groups.

On october 25 1991 there was a National Congress of Education (Congreso Nacional de Educacion con Todos y Para Todos) in which all the community was involved (all unions, all parties, all churches).

There are several versions about why the Congress took place. One version sees the Congress as a natural outgrowth of the first education policy document of the government ("Lineamientos generales..."), which proposes a national consultation to define education policies of the new government. There was a precedent to this notion of consultation in one carried by the FSLN in the early 1980s (this consultation is alluded to in the "Lineaminentos generales..."). The leadership of the MOE had been considering how to carry out this consultation for a long time, the Sandinistas had done a "Consulta" at the beginning of the 1980s, but this is perceived by those I interviewed as window dressing to validate what the leadership had already decided, as participation was limited to the different organizations supporting the revolution. The UNO government wanted to do something more democratic. They considered surveying households on the initial document, but realized this would be expensive and yield little feedback.

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Another version attributes the national consultation to arrangements that had been initiated by the prior government which had made funds from UNICEF and UNESCO available for this purpose. The ANDEN group had been challenging the MOE for imposing measures without consultation, so the Congress was an opportunity to respond to these challenges.

A national consultation was finally designed in three stages: municipal congresses (144), regional congresses (9) and a National Congress. This activity was partially funded by UNICEF and UNESCO.

The municipal consultation took place in September and October of 1991. A discussion document was presented to the meetings at the municipal level (in the first phase of consultation of the Congress). This document consisted of an initial presentation of the objectives of the Congress and the principles orienting it.

The principles were:

1) Education is a responsibility of the State
2) The State should facilitate civil initiatives in Education.
3) Education is a right of all, and a responsibility of all.
4) Education is a democratic process.
5) Educational institutions should focus on learning.

The objectives for the Congress were:

1) Establish educational policies and strategies and priorities.
2) Develop mechanisms for permanent participation of the civil society in the national education project.
3) Obtain information to feed the development of this national education project to be used in the five year plans for the sector.

The initiating document included questions to stimulate the debate at the municipal level, they centered around four themes:

1) Educational Philosophy and Policy
2) Strategies for Educational Development
3) Curriculum
4) School administration

Some of the questions were:

1) What should be the values of Nicaraguan education.
2) What should be the roles of the State, Teachers, Parents, Students, Churches, Media, Community, Private Sector in Nicaraguan education.

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3) How can equality of educational opportunity be achieved in access to knowledge, to resources, to learning, to participate in decision making.
4) What education can be offered to students in rural and urban marginal areas addresing basic needs, local characteristics, production cycles, educational requirements for work.
5) How can the school promote pluralism, freedom of teaching, peace, democracy, family integration, moral values, art culture and sports.
6) What should be the role of parents and communities in school management.

The initiating document asked to identify needs, develop proposals to address those needs, identify resources of the state and community to finance them, and forms of participation to share the responsibilities for education.

The results of these discussions at the municipal level were then presented for discussion at the regional level, and the results of these regional discussions were reported at the National level.

About 100 people participated in the National Congress, which lasted 2 days. Participants in this congress included regional delegates --among those who had participated in regional consultations--, teachers, ministry staff, churches, mayors, representatives of the teacher unions, university representatives and of the political parties as well as key figures in the field (e.g. Juan B. Arrien, UNESCO's advisor, a main figure of the sector during the sandinista revolution).

The experience with this event was very positive. Current leadership of the MOE had several concerns prior to the Congress, including the fear that the sandinistas would walk out of the Congress or that they would use it as an opportunity to present views suggesting lack of accomplishments in the sector by the current government. In spite of these fears the Congress was perceived by all those interviewed as a success in the three levels of consultation. The Minister would like to have another Congress of this type in a couple of years, as a mechanism to obtain information and feedback on education policies.

The director of planning and development had a key role in the organization of the Congress and is now in the process of revising, together with the Minister, the mid-term education plan to incorporate suggestions from the Congress.

The Congress produced suggestions about options which were not already included in the current education policy, for example:

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1) The Minister indicated that the Congress recommended to form a National Education Council, an idea he is seriously considering.
2) Several 'Municipios' reported that they had no capacity to take responsibilities for education.
3) The idea of Municipal Education Councils ('Juntas de Educación en el Municipio') was proposed in the consultations.

Some of the advisors of the Ministry are now working in producing a summary of the Congress recommendations for publication in the press and in incorporating those recommendations to the mid-term plan.

Summary and Recommendations regarding policy process.

The recent MOE initiatives to broaden the base for policy dialogue should be encouraged and supported. An excessive concentration of policy making responsibilities in a few individuals, who also have political responsibilities to attend to the demands of the environment (such as teacher demands), will make it very difficult for the Ministry to develop a strategic plan ordering its priorities and developing strategies to carry them out in an efficient way.

The MOE should be assisted to shift from a 'reactive' organization, to an organization that can develop its own agenda and focus attention and resouces in pursuing it effectively.

At the present time the Ministry has low direction due to the internal problems described in this section, and faces an environment that does not promote focusing either, namely reacting to the demands of the teacher unions and to the multiplicity of agendas of donors. This calls for providing legitimate spaces for participation of teacher unions and for donor coordination.

Three recommendations to achieve these objectives are: the development of an education 'think tank' within the Ministry, the establishment of a formal mechanism for consultation and policy dialogue and of mechanisms to communicate and clarify policy priorities.

Establishing a think tank, or a unit which could inform the exploration of policy options by the leadership of the Ministry could involve developing capacity for policy analysis of 4-8 senior staff who would then meet regularly to discuss policy priorities and strategies. This could build on the existing Direccion Superior de Educacion. The new Dirección General de Información y Planificación could play a key role bringing information (not data) to bear in those policy discussions. This means developing information systems in the Ministry, capacity to

use them for policy analysis, and strengthening the capacity to do focused, policy-oriented research on issues of special interest to the Ministry. Of special importance is to develop capacity to cost out educational initiatives and to do project appraisal to compare the cost-effectiveness of alternative projects.

Minister Belli has indicated that he would like to have technical assistance to develop this type of policy analysis capacity within the Ministry.

Besides strengthening the capacity of a general policy analysis team, special efforts should be made to srengthen the unit in charge of foreign-funded education projects. With regards to foreign-aided projects the MOE should also move away from a 'reactive-mode' in which priorities are donor driven, to developing its own priorities and concentrating resources, including the limited human resources available in the Ministry, in those areas.

In addition to strengtheing the technical advise available to the Minister, policy implementation would benefit from a 'sounding board' for the Minister to establish policy dialogue before announcing a policy. This body would not be charged with the authority to decide, a power which would remain with the executive, but would allow the decision makers an opportunity to anticipate the reactions to specific policies and would provide a space to negotiate agreements supporting education policies.

This sounding board could be the Consejo Nacional de Educación which was suggested by the Congreso Nacional de Educación. It would be very valuable to develop some policy analysis capacity among members of this Consejo too and to implement organizational development interventions to promote the creation of a climate of collaborative problem solving and constructive strategies for conflict resolution.

This Consejo would have a dual role. On the one hand it would provide a sounding board to give feedback to the Ministry on policy options and issues. On the other hand, it could help establish a National Consensus regarding educational priorities and assist the Ministry in reaching the larger community to communicate priorities and channel additional resources and foster participation.

The Consejo Nacional de Educación could help address the issues of sustainability of policies, for instance identify options to resupply textbooks, to finance increases in teacher salaries, etc. Since the goal of this activity is to broaden the contributions of the society at large to education (for instance businesses helping fund the replacement of textbooks) it is crucial that the society at large is represented in this advisory

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body.

Besides developing this capacity for policy analysis and policy dialogue, the Ministry should be assisted to communicate and disseminate policies, priorities and achievements. One option could be to set up a regular publication from the Ministry to all schools and municipalities to inform them of guidelines, initiatives, and to use it as a vehicle to promote schools learning from each other --for instance the teachers selected for special effectiveness, mentioned in the training component, could be mentioned in these newsletters, writting summaries that explained what made those teachers more effective--. This newsletter could also be a tool for simple dissemination on effective classroom and school management practices.

A thorough analysis and rationalization of the recommendations of the National Congress should capitalize on this important initiative. Once the specific education priorities are set for this government they should be widely disseminated, couched in the legitimacy that stands from this national consultation.

The MOE could institutionalize the preparation of a "Memoria y Cuenta" presented by the Minister to Congress, to the regions and to the education community. This 'State of the Sector' could include a section with relevant education indicators, a periodic re-statement (or revision when needed) of priorities, a summary of accomplishments and an analysis of remaining problems. This initiative would be along the lines of improving administration by increasing its transparency.

The Minister's idea of future Congresses, in a couple of years, as mechanisms of feedback and opportunities for policy dialogue should be supported.

The focus of BASE is to strengthen the MOE to sustain policy reform, through more efficient use of resources (e.g. the "Banco del Libro" scheme suggested earlier) to the point where the MOE will gradually be less dependent on foreign assistance to fund initiatives for educational improvement.

4. Relationship between the current policy environment and BASE.

BASE's focus on the early grades of primary education is consistent with the GON emphasis in the first 4 grades of primary education.

The component of institutional development addresses less explicitly the concerns outlined in the several policy documents examined. The analysis of the constrains in the process of policy analysis make it obvious, however, that enhanced capacities for

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policy design and implementation are an essential environment to establish any other improvement of the education system and towards its institutionalization and sustainability.

The components of curriculum development and teacher training address directly 2 of the 8 specific strategies mentioned in the "Lineamientos del Ministerio de Educación...". Their focus on the early grades of primary education address the major sources of internal inefficiency hence contributing to increase the percentage of students who graduate from sixth grade.

C. Institutional Analysis

a. Background

The Nicaraguan Political Constitution mandates the Ministry of Education (MED) to administer the delivery of primary and secondary educational services in Nicaragua. Its responsibilities include the supervision, regulation, and inspection of public education and overseeing the technical adequacy of teaching at private schools.

The MED is a massive bureaucracy which includes about 30,000 employees. The majority of these employees are active teachers or members of the teaching profession (approximately 24,000). These employees are distributed at the Central Ministry (approximately 450), nine regional offices (2,500), 143 municipal offices (approximately 2,550), and 10,000 schools (approximately 18,000).

Traditionally, the MED has been a centralized bureaucratic organization. It has been run from Managua. It has been slow to respond to local or individual needs and difficult to govern and change. For example, the previous regime circumvented the MED bureaucracy almost completely in its famous literacy campaign, partly because the MED was too slow, inefficient, and centralized to quickly a mount a high visibility campaign. The use of local volunteers was the Sandinista's way around this problem. It also has not been well funded.

b. Reorganization

In an attempt to overcome these problems, the MED has undergone a recent reorganization. The organization chart for this reorganization was submitted in the 1992 budget proposal to the Ministry of Finance (MIFIN) and received its approval. The changes will actually go into effect in March 1992 when the new school year begins (see attachments).

The governing notion of the reorganization is to have the Central MED serve as a policy and norm setting center with the municipal delegations as executing units. To accomplish this, the reorganization tries to achieve two things. First it will restructure the Central MED to make it more efficient and better able to set priorities and implement them. Second it began a process of administrative decentralization (deconcentration) to lead to an eventual political decentralization (devolution or decentralization). The idea here is that this will make the MED more responsive to local needs and will increase local participation. In turn it is hoped to pass on more of the responsibility for supporting Basic Education to local communities.

At the Central MED level, the reorganization tries to increase the importance and accountability of Basic Education by creating a sub-directorate for Basic Education. It is thought that this change will allow more resources to be devoted to and better accounted for in primary education which is now the most important office in this sub directorate. Also, Adult Education, a favored program during the previous regime, was demoted three ranks on the organization chart and changed from a General Directorate to a Specific Directorate and placed under the new Sub Directorate of Post Primary Education. This move signals the serious intent of the MED to concentrate its scarce resources on Basic Education.

The reorganization of Central MED also places an emphasis on administrative improvement to lead to more efficient support of basic education. In part, this is to be done by changing the planning function. In the reorganization, planning has been converted to a wholly administrative office which looks at policy, priorities, and projects, and that answers directly to the Minister. Former responsibilities that were not aimed toward policy formulation, such as curriculum planning, have been moved to the Education Directorate. The objective is to have the planning office concentrate on tracking projects and educational statistics related to primary education and getting this information to decision makers.

The reorganization of the Central MED also streamlines the General Directorate of Administration. Offices which were not essential to policy formulation and administration or which were seldom used, such as architecture and engineering, were moved or eliminated. This was done in order to place more emphasis on the basic support functions of personnel, financial control, and materials distribution. It is thought that strengthening these functions will lead to a more efficient Central MED which can more efficiently manage and direct resources such as teachers, financing, and textbooks at primary education.

Recently,the GON administered the Occupational Conversion

Plan. This plan allowed people to retire from the Public Service for two years salary and a cash bonus. Many Central MED employees have taken advantage of this option. Though this has caused some morale problems, it is also looked on as an opportunity to increase efficiency and control of policy formulation, communication, and implementation. The reduced size of Central MED will allow for a more consultative management system and style. Objectives can be set and followed up through face to face contact of superiors and subordinates. This in turn will allow for more participatory policy making and better policy communication not only in the Central MED but also between it and the local jurisdictions.

The second aim, of reorganization was to take the first tentative steps toward a phased, continuing decentralization process. The first step was to cut MED size, increase flexibility, and increase local importance by elimination of Regional Delegations. The basic unit of management outside the Central MED will now be the Municipal Delegation. It is hoped that this municipalization eventually, will support basic education by leading to greater community involvement in schools and the allocation of more local resources.

c. MED Policy Priorities

GON and MED decision makers have made improvement in the quality and the efficiency of primary education (grades 1 through 4) their goal. The Minister of Education and the Minister of the Presidency at the recent, First National Congress of Education, both stated that Primary Education is the government's most important educational priority. The Minister of Education has emphasized that the goal of the MED is to improve the quality and the efficiency of Primary Education.

In order to reach this goal the MED must be capable of setting policy at the Central MED and implementing it throughout the country. Under the reorganization, the MED must have or develop the capacity to regulate a decentralized educational system. MED leadership recognizes this and wants to concentrate on five key areas:

(1) improving the management, functioning, capacity and capabilities of the Central MED;

(2) modernizing the management sub systems at the Central MED;

(3) establishing Central MED planning and project management system;

(4) improving Central MED policy setting and supervision; and

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(5) municipalization of the MED.

USAID has provided assistance in the first and last areas through the use of local and one international consultant. The new organization chart was drafted in consultation with a USAID funded public administration expert.

d. MED Capacity

In carrying out its mandate, MED suffers from several problems. Some are purely financial. Others are organizational and management problems. Still others are tied to a lack of skills or abilities.

1. Lack of Training and Experience

Most administrative staff members do not have administrative training or experience and come from teaching or other non pertinent backgrounds. Those in administrative positions at Central MED, and those at the Regional and Municipal Offices are not required, either by job description or directive, to have any administrative training. A number of employees have experience in a related field such as industrial psychology engineering, and economics.

2. Lack of Resources

The MED lacks the resources that it requires to hire, train, and equip qualified Central Ministry staff. Its current budget is approximately the equivalent of US$8 million from the GON central budget. Approximately 93% of this budget is absorbed in fixed costs such as personnel and utilities. MIFIN has almost total control over disbursements to the MED and issues checks for the MED payroll and pays its utility bills. It controls about 93% of the MED budget in salaries and utilities. Of the rest, perhaps 1% of the remaining 7% is not absorbed by other reasonably fixed costs.

In addition, there have been recent changes in the way education is to be financed and teachers are to be paid. The Ministry is attempting to charge a fee for education. It will be voluntary for grades one through six but mandatory for other grades. The money collected will be used as salary supplements for teachers. This plan has raised teachers expectations, but they may be disappointed. Public opinion about the plan is mixed and constitutional questions remain to be decided about whether education is to be offered for free through all grades. If the legislature acts to take money away form the MED to make up for what it collects, the situation may worsen.

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3. Lack of Defined Functions and Systems

As mentioned above, the MED has been reorganized recently. To do this, the Regional Delegations have been eliminated. With the reorganization the system will not be directly administered from Managua. Elimination of the intermediary structure of the Regional Delegation will be taken over by the 16 National Supervisors of the newly created General Directorate of Educational Supervision.

These Supervisors will provide administrative direction and review for the Municipalities through an Office in each *Cabecera Municipal*. The is a lack of clear lines of authority and functional responsibility. The function of this office, its procedures, and reporting mechanisms are not well defined. Neither is its relationship with the Municipal Offices and the *Cabecera Municipal*.

This problem is also repeated at the Central MED. Organizational functions are unclear and some are ignored or duplicated. Reporting relationships, duties, and authority are blurred and misunderstood. Functions are not defined in a personnel nor a policies and procedures manual. Organizational processes are not well developed at MED. There is lack of communication, consultation, and conflict resolution on all levels. The MED neither has a functioning management and supervisory system nor adequate procedures for personnel. The MED operational processes are erratic and staff morale is low due to recent work force reductions.

Key MED sub-systems such as personnel, planning, and inventory are in disarray or non functioning. Performance is impossible to measure. The components of a Human Resources Office, selection, payroll, and social services are all in operation. However, most efforts are concentrated on filing records and adding names to the payroll.

4. Position Classification and Performance Appraisal

The MED lacks a Position Classification System. Job descriptions and lists of employed persons are not current and others are missing altogether. The MED utilizes a simple, outdated, system of four job classifications.

The MED does not have a personnel performance appraisal system. There is no systematic recording of employee performance. Neither are there any opportunities for reward or promotion, nor any identification of deficiencies and planning for their remediation through training or other means.

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5. Payroll and Records

The payroll department employs approximately one third of the people in the Human Resources Section in laborious manual processes that are rife with error and the possibility of abuse. MIFIN runs the MED payroll from a list of employed persons which is updated at the MED by hand and sent to MIFIN. MIFIN prepares the checks and MED distributes them. It takes from three to six months to correct errors made in record keeping and check cutting.

Despite being the largest employer in the country, the Ministry does not handle directly the paying of its teachers. Thus, much time (both administrative and teaching) is spent simply trying to make the payroll system work. Salary payments are made by the Ministry of Finance (MIFIN) based on the manually prepared list submitted by the Ministry of Education. This payroll list must take into account the effects of personnel actions (hirings, dismissals, leave, substitutions, pay increases, etc.) initiated by MED offices throughout the country. The payroll list is prepared by the central MED based on the personnel action notices received, laboriously typed up and delivered to MIFIN for computer data entry.

The MED personnel records for both administrative and teaching personnel are a shambles. Like most of the personnel system, this important activity is at best rudimentary. Maintenance of personnel files at the MED is performed completely by hand. An index system which is both incomplete and arcane provides the guide to at least 37,000 records filed in cabinets, on open shelves, and stacked on floor. These records are in various states of decay, some are even being eaten or otherwise damaged by rodents or insects.

The employee record consists of a folder containing basic employee documentation (e.g. employment application, a photograph, certifications of professional training) and all personnel actions affecting the individual (disciplinary actions, transfers, leave, etc.). The files are used only minimally as a basis for action. Presenting original documentation to the Ministry of Labor in grievance hearings on employee disciplinary are the principal use of the information. Promotions also require the review of the employee's *expediente*.

The folders are organized alphabetically within region. The central MED manages only those folders (perhaps some 30% of the total) corresponding to Region III, the special and two autonomous zones of the Atlantic, and all inactive files of retired teachers. Currently, each region manages the records of all teachers assigned to that region. As a teacher moves from region to region, the personnel record is sent along to the new post.

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6. Planning, Budgeting, and Control

The MED lacks an internal budgeting system to help managers plan and control the Ministry's scarce resources and direct them to important objectives such as improving the quality of Basic Education. It is also lacking adequate budgeting procedures. Most managers have no idea of what the budget for their program is nor an idea of how to manage it. Some budget items, such as teacher training, are consistently under budgeted and over spent, while others are the opposite. Money is wasted, difficult to track, and often impossible to control. Only the Ministry of Finance (MIFIN) knows how much remains in the MED budget at any time.

Budget formulation is performed by the Budget office of the Finance Division of the General Directorate of Administration. The budget formulation exercise is conducted annually as part of the GON budget process administered by the Ministry of Finance. In the MED, the budget is divided into programs which generally correspond to the major administrative structures at the directorate level, and then detail line items in accordance with the Ministry of Finance codes. In theory, the budget is formulated by implementing units in accordance with guidelines issued by the Minister's office, but these units are hampered by the lack of knowledge of what their budget is, how it has been expended in the past, or what other resources might be available in the MED.

Even though most regular budget funds are managed by MIFIN, the MED does manage some funds from the GON and other sources. Rotating (advance account) funds are used both centrally and in some regions (although inappropriate use and failure to liquidate have closed some of these accounts). At present, 14 separate local currency and dollar accounts are held by the central MED to implement different donor projects. The status of these accounts (and of their related projects) is poorly controlled and fragmented.

In the current centralized system, MED units request MIFIN to approve and make expenditures through a payment request form. The lengthy delays in processing inherent in this system are obvious, but much time and effort is wasted by requesting the expenditure of non-existent funds. Since no one in the MED really knows the balance of the accounts controlled by MIFIN, it is easy to either exceed budgeted amounts or fail to use them at all.

One of the main tasks of the Planning Directorate is to collect and analyze enrollment data. Three times a year, all schools provide enrollment and promotion data. The purpose of these data is more for reporting on the MED's activity than to collect data for educational planning.

The data collected by the General Directorate of Planning at the Central MED are not used in decision making and plans are never evaluated. The severe delays in both reporting and processing make the data useless for immediate decisions. Even with analyzed data, the Planning Directorate lacks the capabilities to effectively plan projects, monitor and evaluate their success, and control in a timely manner the material and financial resources necessary for their completion.

The General Services Division of the central Ministry operates four warehouses in the Managua area, and smaller units are located in some of the Regions. All accounts indicate that, with the exception of the USAID contractor-run textbook warehouse, there are no real systems in place for either materials inventory and control, planning or distribution. A controllable system for filling and keeping track of orders, inventory on hand, and purchase needs of all educational materials from pencils to text books, does not exist. Personnel are not trained for their operational responsibilities.

Current systems use a centrally-approved requisition form, sent up the MED system from the school and municipal level. Unfortunately, there is no way for the requesting office to know the availability of goods or supplies, and the intermediate MED processing offices have no information base either. Even when the final approving office instructs the warehouses to deliver goods, there is no real relationship between amounts approved to be delivered and actual quantities on hand. The warehouse notes quantities delivered on the form, but no systematic feedback results (i.e., reordering, adjusting balances, etc.) and no knowledge on resources applied to specific schools is gained.

a. Policy Environment and Absorptive Capacity

1. Policy Environment

The policy environment for implementing the proposed project is highly favorable. GON and MED leadership support quality basic education. Also, MED leadership supports a child centered, basic education curriculum of the sort that is proposed in Component C of this project. They equally support training teachers for this task and involving community in this responsibility as outlined in Component B. They are attempting to reorganize and strengthen the MED to carry out these tasks as a policy implementing agency and to plan and set better more informed policy in the future, as the country develops.

2. Absorptive Capacity

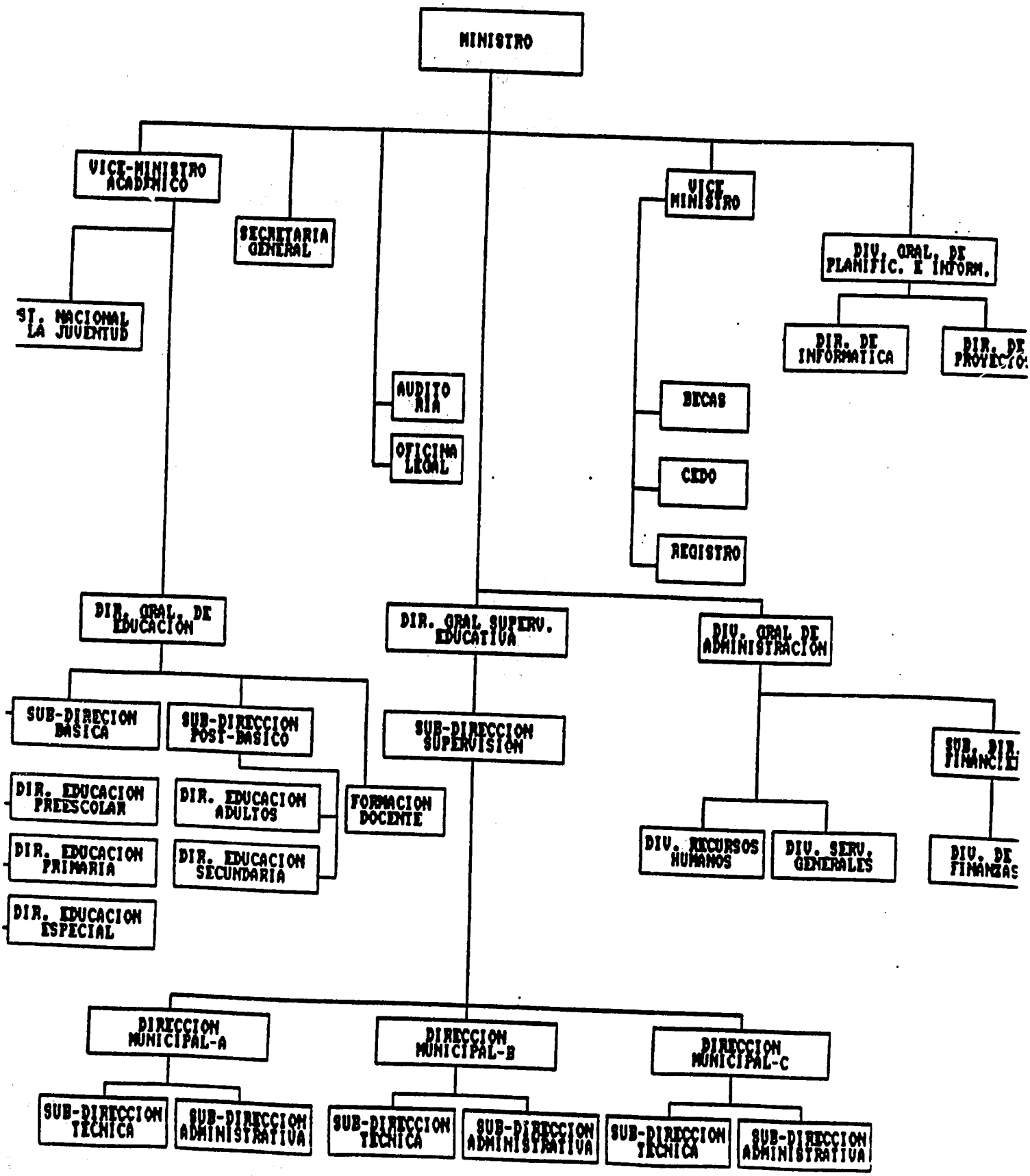
The MED has demonstrable deficiencies in management and administration. Following the organizational design changes of the recent reorganization, it is well organized in concept, but

still has not put these changes into practice. It is lacking investment in both its human and material resources. Accordingly, its present capacity for policy implementation is weak.

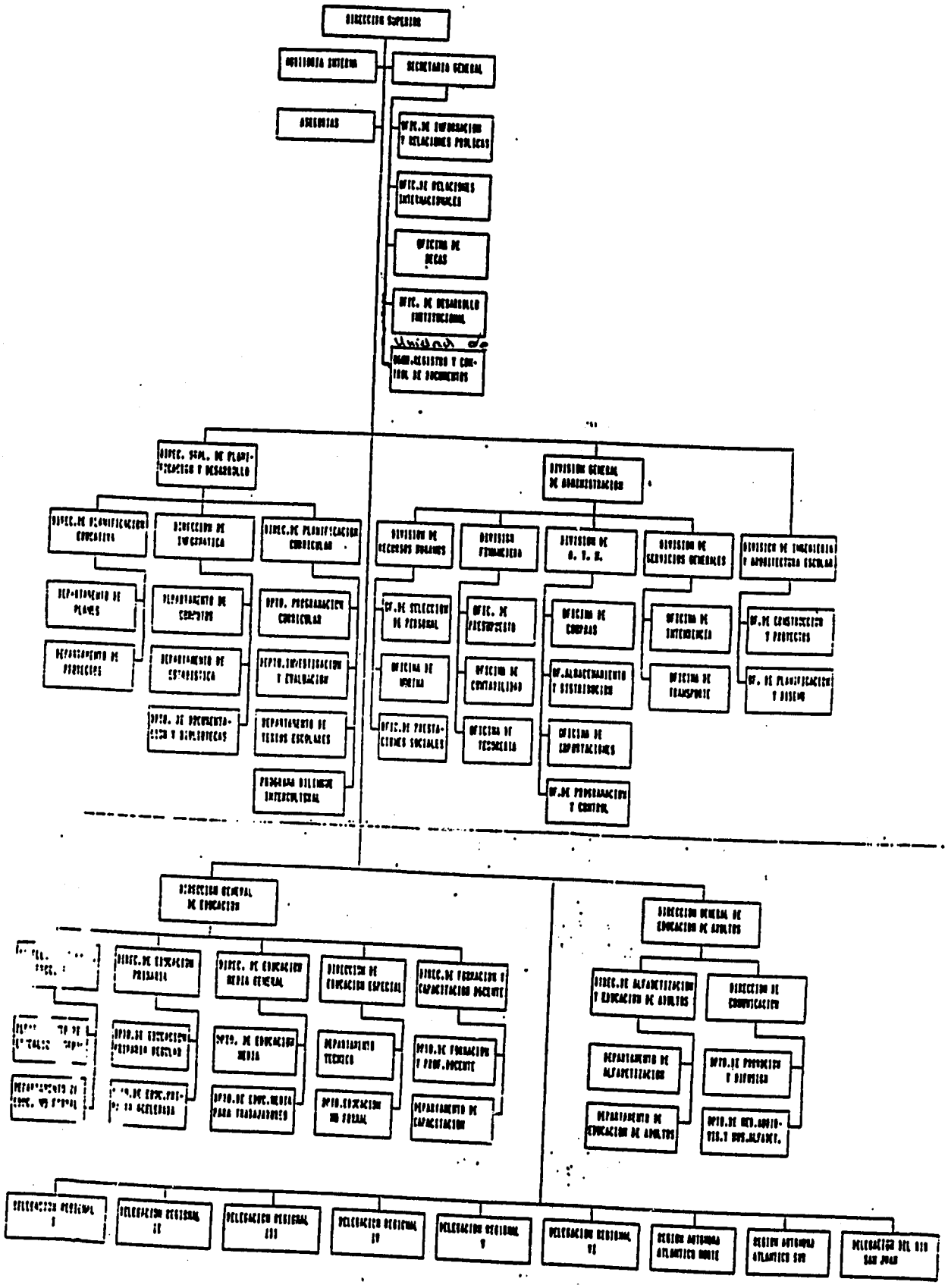
The MED is weak, but not in critical condition. Its absorptive capacity is low, but increasing. With intervention this would be expected to increase even more quickly. MED has absorbed assistance: the assistance given so far by USAID has been directly responsible for reorganization, introducing decentralized, focusing attention on policy, planning and management, curriculum reform, and improved teacher training. It also has led to new recognition of financial accountability which comes directly from working with donor agencies like USAID. For example, at the Minister's request USAID/N has provided a financial advisor to work on budgeting and financial control.

This weaknesses has implications for the planned assistance and intervention in Basic Education. An intervention that aims to improve quality and efficiency in any production system must also enhance the administration of that system. It will be impossible to implement changes without fortifying the MED's capacity to monitor, and evaluate them. It will also be impossible to sustain changes in the future without giving the MED the capacity to plan new policies and develop alternative and cost effective ones to meet its goals. Assistance must be planned carefully. It must strengthen first those systems in the MED which will help to orient the MED to the assistance and thereby strengthen the likelihood of its acceptance and sound implementation.

MINISTERIO DE EDUCACION
ORGANIGRAMA 1992



ORGANIGRAMA ESTRUCTURAL DEL MINISTERIO DE EDUCACION
1991



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D. Management Information System

1. MIS: Automation support Description

a. Summary:

The Institutional Strengthening Component of the Project places considerable emphasis upon building management capability within the MED, both centrally and in support of the progressive decentralization of MED administrative functions. In support of this effort, the Project will develop an information base which supports rational decision-making and planning. The focus of this system will be on the key administrative elements of personnel management, budget and finance, inventory and educational materials, and educational statistics and planning. This annex to Component 1 presents a one approach for developing that system. An outline of the level of Effort, and hardware and software suggested for this effort, and a suggested distribution list, follow in Attachments A and B to the Institutional Strengthening Component.

Project support for management information systems development will consist of the provision of commodities (computer systems, software, supplies, etc.), training (both of end-users and MIS development staff), locally-contracted services (for equipment maintenance, upgrading and software development) and technical assistance (primarily for MIS design work). The scheduling of these Project inputs will parallel the other management development activities of the component.

Personnel system:

Any automation effort to support personnel management improvements at the Ministry faces significant constraints which condition both the type and extent of MIS solutions. Aside from the sheer volume of data elements associated with Nicaragua's largest employer, factors such as decentralization, employee turnover and movement, labor laws governing teacher employment and the conversion of existing records will affect initial systems design. The limited ability of the MED to absorb technological interventions must also be taken in account during design.

The skills of individual managers (school directors, municipal and Departmental delegates, supervisors, etc.) will be variable. A management information system must serve to detect and correct situations that some managers will overlook. In an educational system where only the better managers obtain resources, many children will suffer in their educational experience unless management systems operate in their defense. Management information systems can focus attention on problem areas in educational management and thus benefit more school

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children through a more effective use of scarce resources. Nowhere is this approach more appropriate than in the allocation of teaching personnel.

The personnel management system of the Ministry essentially consists of three basic functions susceptible to MIS intervention: employee records (the *expediente*), payroll preparation, and the *ley de carrera docente*, or laws and codes which govern the employment of the Ministry's teaching staff. Additional personnel functions, such as personnel selection, recruitment and classification, are addressed through othe main activities of the Institutional Strengthening Component.

The Ministry's personnel system cannot at present effectively respond to two fundamental questions regarding teaching staff: who is teaching at a given school, and where a given teacher is employed. Where a teacher is actually teaching (as opposed to the school of employment), and what grade or student load he or she has, are other important but "non-legal" issues the existing personnel system cannot address. The key elements of the personnel system (employee records, payroll and the "career ladder", or *escalafón*) are isolated from each other and from other information the Ministry collects, such as student enrollments. Thus, improvement in the rational distribution of teachers relative to need cannot currently be obtained without changes in the management of personnel information.

Employee Records:

The employee record consists of a folder containing basic employee documentation (employment application, a photograph, certifications of professional training, etc.) and all personnel actions affecting the individual (disciplinary actions, transfers, leave, etc.). The files are used only minimally for decisions. Labor grievances and promotions require review of the file.

The central MED manages only those folders (perhaps some 30% of the total) corresponding to Region III, the special and two autonomous zones of the Atlantic, as well as all inactive files. Each region manages the records of all teachers assigned to that region: as a teacher moves from region to region, the personnel record is sent to the new region. When regions are replaced with Department-level offices, it is currently assumed that personnel records will be moved to each of these new offices.

A first step in personnel records management improvement would be to enhance the access method to the information contained in existing files. Document imaging, using scanners and optical storage disks, has replaced microfilming as an effective method for the reduction of problems associated with paper file management. A classification indexing scheme is used

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in conjunction with data base management software to retrieve scanned documents for on-screen review or laser printing.

Even using data compression techniques, however, a single page requires an average of 50Kbytes of data storage. Removable optical disks typically hold 800 MB, and are thus capable of storing up to 16,000 pages on a single floppy (media cost is $125-$150). A typical employee folder is estimated to contain 20-25 pages of documentation, and therefore an optical floppy would handle only 640 to 800 employees. After an initial phase of scanning existing employee records, subsequent personnel actions are indexed, scanned and stored, likely on other optical floppies. Unless very expensive optical disk "juke boxes" are acquired, the retrieval of a given employee's records then requires the manual switching of the optical media, a cumbersome procedure similar to the use of a personal computer not equipped with a hard disk drive.

A further complication results from the decentralization and movement of personnel files. If each Department were equipped with document imaging equipment, it could scan existing employee records and subsequent personnel actions of employees working in that Department, but when an employee moved to another Department there would be no cost-effective way to transfer those records to the new Department. This would fragment the personnel records of the Ministry, making them inaccessible to any one office. Centralizing the records would also result in their inaccessibility to the Departmental administrative office actually supervising the employee.

Given these constraints, any imaging technology currently available is inappropriate, and the best option appears to be the data (rather than image) capture of key personnel actions. Improvement in the tracking of the files themselves can also be achieved through standard transaction processing techniques. In addition, the computer-assisted index to an employee's personnel history will enhance both access to and utilization of the contents of the personnel records.

Payroll:

Much time of administrators and teachers is spent simply trying to make the payroll system work. Salary payments are made by the Ministry of Finance (MIFIN) based on a payroll list prepared by the Ministry of Education. This payroll list must take into account the effects of personnel actions initiated by MED offices throughout the country. The payroll list is prepared by hand by the central MED based on the personnel action notices received and delivered to MIFIN for computer data entry.

Unlike most Central American countries, the MED actually has a significant teacher substitution activity initiated at the

lower levels of the bureaucracy where the need can be detected. Teachers are recruited to replace personnel on leave (maternity, prolonged sickness, etc.), and paid from specially budgeted funds. The drawback to the system, however, lies in the significant (3-6 month) delays in processing payment to the substitute teachers. MED personnel feel that the "debt" to substitute (and new) teachers is one of its major problems in personnel management. It leads to difficulties in recruitment and assigning of teachers, poor employee morale and excessive time lost by both administrative and teaching personnel in paper chasing (*tramites*) and follow-up with MIFIN. Thus, an otherwise positive mechanism for educational service delivery is at risk of failure due to administrative inefficiency.

The payroll system represents a significant opportunity for improvement under the Project, and will lend support to better management and planning tools to be developed both at the MED central and Departmental offices. What is required is to reduce processing backlogs by capturing data on key personnel actions at the Departmental level, which will then be transferred to the central MED Personnel Division for consolidation. The required payroll list will then be prepared and transferred (in hardcopy, magnetic media or both) to MIFIN for processing. A centrally maintained database will be established and the monthly personnel actions applied to it, Thus, up-to-date personnel information to both central and Departmental offices, as well as historical data by employee will be provided. Since the central MED would retain the historical transactions, it would now be capable of providing employee histories (of key personnel actions and in data form only) to the Department offices to which employees transfer.

A simple payroll system such as that described above will provide the Ministry with information on which teachers are at which schools, but only in terms of where they are budgeted. It is normal practice for local education administrators to redistribute teachers on an informal basis to attempt to deal with the inevitable imbalances between resources and demand which an inefficient bureaucracy creates. The process in the Ministry of detecting need and creating new teacher positions not based on real knowledge of enrollments and teacher assignments, and given the informal "transfers" which occur, currently available data sources do not provide a reasonable basis for initiating data-based decision making in this regard. The establishment of a payroll system, combined with the teacher-level enrollment reporting recommended for the educational statistics system, will provide significant tools to central and Departmental MED managers to better allocate and monitor the principal resource (teachers) of the system.

The Career Law:

The new teacher's law requires that the Ministry improve its classification of teachers, and has created pay incentives based on years of service, academic formation, specialized training, honors received, etc. These incentives are granted based on a complicated system of assigning "points" for a large number of factors; the accumulation of sufficient points leads, depending on the teacher's job level, to a salary increase. Regardless of the merit of the system, it represents an administrative burden that the Ministry is not capable of handling at the present time.

In order to effectively implement the system, a data base must be created which contains all teaching staff: this database is a logical subset of the payroll system. In addition, a data capture system for those transaction which add points to the teacher cumulative total, and which records these transactions is needed. The payroll portion of the system will then calculate the teacher's salary based on appropriate tables contained within the system. These tables must have maintenance modules in order to adapt to changing salary levels approved from time to time. Such a system of capturing "merit" transactions can be incorporated at either the Departmental or central level.

Budget and Finance:

In the MED, the budget is divided into programs which generally correspond to the major administrative structures at the directorate level, and then detail line items in accordance with the Ministry of Finance codes. In theory, the budget is formulated by implementing units in accordance with guidelines issued by the Minister's office. However, these units do not know what their budget is, how it has been expended in the past, or what other resources might be available in the MED.

Obviously, with some 93% of the MED's budget assigned to personnel, little regular budget funds are left over for the MED to actually manage. External assistance, while considered during the budget trimming negotiations conducted by MIFIN, is not integrated with the MED's regular budget, even for internal MED planning and use. This isolation makes it difficult to rationally administer the scarce funds available for non-personnel items. The MED officials are also limited in their effectiveness during budget negotiations by the lack of data on budget execution, growth projections, likely impact of new priority programs, etc.

Even though most regular budget funds are managed by MIFIN, the MED does manage some funds from the GON and other sources. Rotating (advance account) funds are used both centrally and in some regions (although inappropriate use and failure to liquidate have closed some of these accounts). At present, 14 separate

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local currency and dollar accounts are held by the central MED to implement different donor projects. The status of these accounts (and of their related projects) is poorly controlled and fragmented.

In the current centralized system, MED units request MIFIN to approve and make expenditures through a payment request form. The lengthy delays in processing inherent in this system are obvious, but much time and effort is wasted by requesting the expenditure of non-existent funds. Since no one in the MED really knows the balance of the accounts controlled by MIFIN, it is easy to either exceed budgeted amounts or fail to use them at all.

The MED expects the newly created Department offices to act as implementing units, handling both budget formulation and budget execution. The MED recognizes that significant improvements must be made in terms of the management skills and tools available in these offices if effective decentralization is to be achieved.

This activity will establish computer software systems for budget formulation, balance queries and expenditure tracking to occur in each MED implementing unit, and for the consolidation of this information for control and planning purposes at the central MED. An expenditure request tracking system will also be developed to improve follow-up. At the central level, systems will be put in place to provide a combined view of both regular and external finance status, even though it is recognized that these data will not be "official" in the eyes of MIFIN. But given the general non-responsiveness of MIFIN to the MED's requests for information, the Planning Directorate has indicated that it much prefers "approximate" data to none at all.

In order to handle the MED's needs for better managing the checking accounts it does possess, a cash accounting software system will be adapted or developed to provide basic cash flow management and reporting capabilities for these accounts.

Inventory:

The General Services Division of the central Ministry operates four warehouses in the Managua area, and smaller units are located in some of the Regions. All accounts indicate that, with the exception of the USAID contractor-run textbook warehouse, there are no real systems in place for either materials inventory and control, planning or distribution. The Project contemplates the distribution of significant quantities of educational materials, including textbooks, and classroom furniture. Clearly, inventory and materials systems will have to be improved during the life of the Project.

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Current systems use a centrally-approved requisition form, sent up the MED system from the school and municipal level. Unfortunately, there is no way for the requesting office to know the availability of goods or supplies, and the intermediate MED processing offices have no information base either. Even when the final approving office instructs the warehouses to deliver goods, there is no real relationship between amounts approved to be delivered and actual quantities on hand. The warehouse notes quantities delivered on the form, but no systematic feedback results (i.e., reordering, adjusting balances, etc.) and no knowledge on resources applied to specific schools is gained. There are also no links with other data sources, so schools do not receive certain quantities of materials as a function of their enrollment.

A simple system will be developed and implemented in the Departmental and central MED offices to verify existences prior to approval and adjust estimated stocks at the time of approval. This system will produce a delivery order, linking the provision of materials to the school receiving the goods. Support for procurement planning and physical inventory audits will also be included in the system. Additional information on needs will be available through the educational statistics and planning support systems detailed in the next section.

Planning:

The flow of enrollment counts from the school level is a traditional data gathering activity at the MED. Three times a year, all schools provide enrollment and promotion data. The purpose of these data is more for reporting on the MED's activity than as a rich data source for educational planning. The large volume of data generated through the statistics activity, and the importance of these data for both GON politicians and international donors has traditionally resulted in the availability of computer resources. Also, in a real sense, the data reporting exercises represent one of the few occasions on which schools communicate their activities to the MED.

The fact that the data are collected three times a year (most countries do two data collection efforts) would seem to indicate that the information is seen as being important for decision-making, yet the severe delays in both reporting and processing make the data useless for immediate decisions such as reassigning teacher staff. Data coverage is spotty, so others mistrust the data, and year-to-year variations make the data appear to be unreliable. In accordance with a "what we did" attitude, the major output of the educational statistics system is a statistical bulletin. These bulletins contain only initial enrollment data, and suffer serious tabulation and production delays. The last six-year summary, the only other publication, covered 1978-1984 and was published in 1988. These documents

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contain volumes of simple tabulations of numbers, but no real analysis.

Because the objective is to produce summary tabulations, no use of the enrollment data at the individual school level, such as for determining needs for additional teachers or materials is made. The textbook system in place illustrates that these types of data can be effectively used if an objective is defined. But to enhance the educational statistics system as a planning and management tool, it is necessary to focus data collection efforts at a more operational level, the teacher, rather than the school. There are several reasons for this judgement. First, the sheer difficulty school directors experience trying to consolidate information from individual teachers on unwieldy forms introduces both serious delays and inaccuracies in the original data collection instrument. Second, a teacher level reporting will allow the location of the teacher in terms of where he or she actually teaches. Third, teacher level reporting will allow the identification of teachers by load (both students and grades) and permit better redistribution of them within the system. Fourth, by relieving the school director of tedious consolidation and tabulation tasks, other information specific to the establishment can be obtained. Finally, "outlier" situations of high student loadings will not be hidden by averaging across a school or a municipality.

This recommendation is often assumed to mean a large increase in data volume. In reality, data volume does not increase significantly, because the complexity of the data report (and data entry) decreases (teachers report only on their grade, for example, and on a narrower range of ages). In fact, the high complexity of current forms (grade by sex by age by repeater status, for example) often prohibits the collection of other, relevant information. In an educational system where the teacher is the primary resource available, it is also the only permanent way to obtain information on the allocation of this resource.

It is also important that data capture be moved closer to the data source. Obviously, central level processing bottlenecks require more hands on more keyboards to solve. Also, Departmental level supervisors and managers can use the information generated on the schools and teachers they administer. Armed with real data, they will also become more effective lobbying agents to acquire MED resources. The Project will locate computers in each of the Department-level offices, and provide power conditioning equipment, modems, paper, supplies, training and support to them. These machines will also serve the other Department-level data capture needs.

Technical assistance will assist the MED in redesigning their data collection, consolidation and reporting software. The data collection instruments will be streamlined, and will provide

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the MED with up-to-date information on classroom level enrollments (including repetition and dropout information) by sex and age, and basic information on infrastructure, furniture and the availability of educational materials. A key feature of all new software will be its ability to interrelate data elements (e.g., personnel and enrollment) at the different levels of detail maintained throughout the system.

Other inputs to the central MED Planning Directorate include the provision of analytical software (statistics packages, educational system modelling systems), project management tools, graphics packages, and desktop publishing software and training. Project funds will also be provided for the preparation and publication of statistical yearbooks, statistical bulletins and special studies. Technical assistance will assist the MED in developing lively formats for the reporting of statistical information, and in targeting information and analysis towards specific MED users.

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MIS Inputs:

Commodities:

Project funds will be used to procure the following equipment and other materials (see detailed specifications attached):

19 "stand-alone" microcomputers, equipped with tape cartridge drives for backup and data transfer purposes, state-of-the-art data compression and error correcting modems, medium duty printers, power conditioning equipment, and a fax machine for technical support purposes. This equipment will be distributed to the 19 (Managua has 3 Zone Offices) Department-level offices of the MED. Funds for adequate electrical and equipment installation are also provided.

24 microcomputers, connected to a microcomputer network, will be located at the central MED. These machines are each equipped with line conditioners, a UPS, and a dot-matrix printer. Installation costs will also be funded.

1 central server microcomputer, located at the central MED, will operate the network, providing large high-speed disk storage capacity, tape backup, and larger capacity printing on a medium speed line printer. Power conditioning equipment, including an on-line UPS, and fax and modem capabilities are also provided.

8 laser printers. These will be placed in the central MED in units requiring presentation-quality graphics and document capability.

5 notebook computers. The notebook machines will serve both in a support mode and for key document producers of the MED.

2 flatbed scanners. Both document production (graphics incorporation) and potential OCR use will be supported.

10 Ethernet adapters for connecting existing equipment to the network. A number of computers donated by USAID and UNESCO are currently isolated in the MED. The adapters will allow system resources to be better shared.

Computer supplies, paper, the printing of forms, subscriptions and books, and the costs of producing and publishing statistical yearbooks, bulletins and special studies.

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Maintenance and upgrading costs. Basic system maintenance is estimated at 10% of the capital cost of the equipment per year. Because of the duration of the Project, it is necessary to include upgrading funds in order to replace and improve Project-provided equipment. In this way, the MED capability will be maintained through LOP, rather than progressively deteriorate. Upgrading costs have been estimated at 30% of the capital cost of equipment in each of years 4 and 6 of the Project.

Technical Assistance:

1 short-term international consultant in educational systems design and implementation will assist the MED for a total of 9 months in establishing the systems design and implementation plan. This specialist will provide 4, 3 and 2 months of services in Project years 1, 2 and 3, respectively. It is assumed that most of the TA provided in year 1 will be bridge-funded in order to accelerate the procurement and systems development process.

1 short-term international consultant will assist the MED for a total of 7 months in the design of new applications and promotion of the utilization of system products. This specialist will provide 1 month of services in Project years 2, 3 and 6, and 2 months of services in each of Project years 4 and 5. These services are considered essential to maintain a systems services development momentum in the MED, and to ensure that opportunities for expanded use of the information system are responded to by the Informática Directorate.

Funds are also allocated for contracting the local development of the software systems required for implementation. The MED does not and is not expected to have the capability to develop the number and type of applications required for MIS implementation. MED salary structure also does not permit the hiring of personnel with sufficient technical skills to develop the software contemplated by the Project. Software development funds will be expended during Project years 1, 2, 3, and, to a limited extent, in year 4.

Training:

A total of 90 person-course short-term training courses for end-users of spreadsheet, word processing and other "canned" software packages will be contracted through local institutions such as INCAE. Because of expected personnel rotation in the MED, these courses will be

contracted throughout the first five years of the Project, although they are concentrated in the first year.

10 person-course participants will be trained in specialized database design techniques at a local institution. These participants will be from the Informática Directorate.

A total of 11 observation trips to other Central American countries (Guatemala, El Salvador and Costa Rica) where similar educational MIS development efforts are taking place.

2. MIS: Automation support Commodity Specifications

Standard non-network machine: ($5,000)

Nineteen systems of this type are to be procured. These machines will be placed one each in the Departmental Offices of the MED. The Managua Department is divided into three offices, and one machine will be placed in each. Power conditioning equipment, a fax, a modem and a reasonably fast, heavy duty printer will also be installed with each machine. Installation costs are separately budgeted.

INTEL 80486 processor, 25 MHz or faster, integrated 8 Kbyte RAM cache and floating point coprocessor
4 MB RAM (expandible to 8 MB without discarding initial memory) on motherboard, 70 ns or faster average access time
32 bit bus, EISA or Micro Channel architecture
300 MB (minimum) IDE disk drive, average seek time of 19 ms or faster
Internal DC600XTD tape cartridge backup unit, 150 MB (uncompressed) minimum capacity, Novell network supported, file-by-file and mirror image backup and restore
Color monitor and 16 bit controller providing, at a minimum, SuperVGA resolution (800 x 600), 16 colors and 256 Kbytes video memory
3.5", 1.44MB internal diskette drive
Two parallel and two serial (RS-232) ports
Microsoft mouse, MS-DOS 5, Windows 3.0
Enhanced (101 or 102 key) mechanical action keyboard
Tower cabinet with security keylock
250 watt minimum peak capacity power supply

Other equipment: ($3,000)

Standby UPS, 500VA minimum, spike/surge protection, EMI/RFI filters ($500)
2400 watt line conditioner/voltage regulator ($250)

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Fax, Group III compatible, minimum 10 page input feeder capacity, output sheet cutter, use 300 foot thermal paper ($650)

9600 bps V.32, V.42 external modem, V.42bis data compression and V.42 error correction, MNP 5 support, full duplex over switched lines, synchronous and asynchronous, automatic fall-back of transmission speeds (9600, 4800, 2400, 1200 and 300 bps, trellis-coded modulation at 9600 bps for signal interference resistance, Hayes AT command set compatible. ($600)

Dot matrix printer, 400 cps minimum in draft mode, graphics capable, tractor feed, multipart forms capability, rated for high duty cycle, parallel, sound abatement cover ($1,000)

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Standard network machine: ($3,500)

Twenty-four of these systems will be procured under the Project, and will form part of a network installed at the offices of the central MED. The tentaive distribution of this equipment is shown in the attached list. Power conditionng equipment and a medium duty dot matrix printer are also to be procured.

INTEL 80486 processor, 25 MHz or faster, integrated 8 Kbyte RAM cache and floating point coprocessor
4 MB RAM (expandible to 8 MB without discarding initial memory) on motherboard, 70 ns or faster average access time
32 bit bus, EISA or Micro Channel architecture
80 MB (minimum) IDE disk drive, average seek time of 28 ms or faster
Color monitor and 16 bit controller providing, at a minimum, SuperVGA resolution (800 x 600), 16 colors and 256 Kbytes video memory
16 bit Ethernet adapter (IEEE 802.3, 10 Mbps)
3.5", 1.44MB internal diskette drive
One parallel and one serial (RS-232) ports
Microsoft mouse, MS-DOS 5, Windows 3.0
Enhanced (101 or 102 key) mechanical action keyboard
Desktop or deskside cabinet with security keylock
220 watt minimum peak capacity power supply

Other equipment: ($1,200)

Standby UPS, 500VA minimum, spike/surge protection, EMI/RFI filters ($500)
2400 watt line conditioner/voltage regulator ($250)
Dot matrix printer, 300 cps minimum in draft mode, graphics and NLQ capable, tractor feed, parallel, sound abatement cover ($450)

Network server: ($10,000)

The network server is a high capacity machine to be located in the Planning and Information Directorate at the central MED. Also included is a medium duty line printer, fax, and modem, power conditioning equipment and the Novell network operating system.

INTEL 80486 processor, 33 MHz or faster, integrated 8 Kbyte RAM cache and floating point coprocessor
Additional RAM cache of 128 Kbytes, minimum
16 MB RAM (expandible to 32 MB without discarding initial memory) on motherboard, 70 ns or faster average access time
32 bit bus, EISA or Micro Channel architecture
32 bit SCSI-II disk controller
Minimum of 800 MB disk storage on two separate drives, SCSI-II, average seek time of 16 ms or faster
Internal DC600XTD tape cartridge backup unit, 150 MB minimum (uncompressed) capacity, Novell network supported, file-by-file and mirror image backup and restore
Color monitor and 16 bit controller providing, at a minimum, SuperVGA resolution (800 x 600), 16 colors and 256 Kbytes video memory
16 or 32 bit Ethernet adapter (IEEE 802.3, 10 Mbps)
3.5", 1.44MB internal diskette drive
Two parallel and two serial (RS-232) ports
Microsoft mouse, MS-DOS 5.0, Windows 3.0
Enhanced (101 or 102 key) mechanical action keyboard
Tower cabinet with security keylock
350 watt minimum peak capacity power supply

On-line UPS, 1.5 KVA minimum capacity, incorporating spike/surge protection, EMI/RFI filters, Novell network compatible automatic shutdown interface ($1,500)
2 Line conditioner/voltage regulators, 2400 watts minimum capacity ($250)
Fax, Group III compatible, minimum 10 page input feeder capacity, output sheet cutter, use 300 foot thermal paper ($650)
9600 bps V.32, V.42 external modem, V.42bis data compression and V.42 error correction, MNP 5 support, full duplex over switched lines, synchronous and asynchronous, automatic fall-back of transmission speeds (9600, 4800, 2400, 1200 and 300 bps, trellis-coded modulation at 9600 bps for signal interference resistance, Hayes AT command set compatible. ($600)
250 line-per-minute (minimum) printer, 132+ columns, tractor feed, 6 part forms capability, pedastal stand, sound abatement cover/cabinet, parallel interface, extended ASCII character set, upper/lower case letters. ($4,200)
Novell Netware 3.11 21-100 user network operating system ($4,200)

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Other equipment:

To be distributed at the central MED are the following items. Laser printers will be connected to different machines across the network, notebooks will be acquired for support and development purposes within the Planning and Information Dir orate, two scanners will be available for document creation tasks, and Ethernet controller cards will be purchased to connect existing equipment to the network.

8 Laser Printers, HP LaserJet III compatible, 2 MB total memory, 8 ppm ($2,000)
5 notebook 80386-20 MHz 1 MB RAM, 20 MB disk, portable computers, MS-DOS 5.0 ($2,500)
2 Flatbed scanners, HP ScanJet compatible ($1,800)
10 Ethernet adapters for connecting existing equipment to Novell network ($300)

E. Teacher Training

1. Background

There are currently 18,000 primary school teachers in Nicaragua of which approximately 8,400 (47%) are not certified. Nicaragua's has twelve Normal Schools. These are currently functioning at a minimal level and have very serious problems related to financial resources, infrastructure, curriculum and instruction, inability to meet current teacher demands, inability to produce their own teaching materials, antiquated and inadequate libraries. They do not support a regular in-service training program.

Children continue to receive poor quality instruction at the primary level and the GON does not currently possess the qualified human, adequate financial, and appropriate instructional material resources required to address these concerns. A poorly trained teacher with the finest child-centered instructional materials is unable to contribute to the improvement of the quality of education. A simultaneous intervention in teacher training and instructional materials is required.

The GONs' precarious financial situation does not allow the required investments in the sector. The unemployment rate is over 40%; and the new Teacher Profession Law (Ley de Carrera Docente), if implemented to the letter, will reduce the number of hours a teachers works to 25 per week. This law will increase teachers' salaries, but little, if any, funds generated for the education sector will become available soon for significant GON interventions which contribute to the improvement of the quality

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and efficiency of education. If the Teacher Profession Law is not implemented, it may result in massive teacher strikes spearheaded by union leadership and fueled by the cost-of-living.

2. Accreditation Program

The new GON Law of the Teaching Profession, "Ley de Carrera Docente", requires the MED to make provisions for teacher certification. It concerns four categories of uncertified employed teachers exists: a) those with less than a sixth grade education; b) those with a sixth grade education; c)those with a ninth grade education; d) and those with a twelfth grade education. It is suspected that the majority of uncertified teachers are assigned to rural areas and, more than likely, assigned to positions of teaching responsibility in grades one through three where the problem of quality seems to be the greatest. The MED teacher accreditation process will continue to graduate between 1,200 and 1,600 certified teachers per year.

Plan A non-certified teachers (sixth grade academic training) in the above mentioned program are required to attend classes the equivalent of 90 days per year during a four year period; Plan B non-certified teachers are required to attend 90 per year for a three year period; and Plan C non-certified teachers attend 90 days per year for a two-year period. Current data and information indicates the accreditation program is functioning.

The major problems which discourage teacher participation in the professionalization program are costs related to transportation, food, and lodging. For example, Normal school directors and Central MED Directorate of Formal Education representatives estimate that given the current cost-of-living, per diem should be approximately equivalent to US$13.00 ($5.00 for lodging and $8.00 for meals); and average monthly transportation costs approximately equivalent to US$22.00. Additionally, normal school itinerant professors are currently traveling with a meager subsistence per diem of the equivalent to US$3.40.

3. Normal School Course Load

Normal school directors' attitudes regarding minimal requirements for teacher accreditation, as well as related costs for a significant intervention not only to accelerate the graduation process but also to assist MED personnel in reducing the course load from 43 credit oriented courses to a course load which would allow non-certified teachers to receive credit for the number of years of classroom instruction and through the provision of intensive one-year training with emphasis on improving the quality and efficiency of education at the

classroom level.

Normal school directors admit that the level of academic training of an uncertified teacher (*empírico*) coming into the existing program may have little to do with the person's actual knowledge of required subject matter. However they are adamant regarding the maintenance of present graduation requirements. This means that though the Directors claim to be interested in streamlining the accreditation process, teacher certification will still require two to four years of participation in the MED accreditation program.

It was concluded that normal school directors are not in agreement that a streamlined approach to teacher certification will produce the quality of professional required for teaching in Nicaragua's primary schools. Additionally, the cost of an intervention which would address the most serious problems facing the professionalization program are insurmountable. It is estimated that the cost of incentives such as reimbursement of transportation to participating non-certified teachers and related per diem would amount to over US$30 million. In addition, if qualitative interventions are factored into this cost analysis, the program may have cost over US$37 million with no guarantees that the quality of instruction will change and with no guarantees that the number of years to certify a teacher in the present professionalization program would be reduced significantly.

A very important conclusion is that the MED Directorate of Formal Instruction and normal school directors are confident that they will continue to graduate between 1,200 -1,600 certified teachers from the professionalization in-service program, in addition to 250-350 newly certified teachers from their pre-service normal school level program. However this program will not provide the most appropriate means to address quality and efficiency issues so that there is reasonable assurance that children will be directly benefitted. Additionally, the professionalization program does not allow the flexibility to address the training concerns of certified teachers at the primary level.

If normal schools are capable of maintaining and increasing the current newly certified graduation rates over the next seven years, the new pool of professionals (approximately 2,000 certified teachers from 12 normal schools) available to meet the anticipated demand (200,000 new primary level enrollers), as well as the possibilities of the GON to make teaching salaries more attractive may lure other existing candidates back into the teaching profession. Another influencing factor will be the anticipated increase in pupil/teacher ratio, therefore, meeting the new teacher demand to be created by new enrollers, at this point does not seem to be a problem.

4. In-Service Training

The May 1991 Nicaraguan Primary Education Sub-sector Assessment states that there is not a single record of in-service training of primary teachers in the country. Individual sections of the MED plan their courses and workshops with little knowledge of course content or programming by other sections of the MED. The problem is amplified by the fact that there is no inventory of teacher needs, either by subject area or by grade level and no control over who receives training and when. It was, therefore, concluded that the regular in-service training program ("capacitación) is practically non-existent. The infrastructure exists with over 600 technicians down to the municipal level, but no support is given to enable them to carry out their responsibilities. This type of in-service training depends almost entirely upon outside funding.

The above described problems are exacerbated by the fact that the quality and quantity of the curriculum and related instructional materials is either inadequate, irrelevant or totally lacking. The MED's Curriculum Planning Section has a technical staff but it lacks technical training in modern curriculum and instruction methods. At present, given the diversity of methodologies utilized in the various in-service training programs, the shortage of materials, and the inadequacies of the teachers of these programs,it has been determined that, it is impossible to organize a continuous institutionalized in-service training program for all teachers.

The lack of teacher certification has not significantly influenced the system's student survival rate. Thus, the effects of uncertified teachers cited by MED officials may not be as serious at thought, at least in terms of internal efficiency. It is suspected that the majority of uncertified teachers are assigned to rural areas and, more than likely, assigned to positions of teaching responsibility in grades one through three where the problem of quality seems to be the greatest. For this reason the strategic programming of systematic phased in-service training program is necessary to reach the target population responsible for delivering educational services to children.

8,400 uncertified teachers were enrolled in the aforementioned certification program in 1990. Under current program requirements, it may require up to four years to graduate from the program. This, however, varies according to academic level of formal schooling upon entry into the certification program. The profesionalization or accreditation program for non-certified teachers has expanded greatly in its nine years of operation, peaking at 8,400 enrolled in 1990. While it has the potential to confront the non-certified teacher problem, it cannot do it unless the flow of new poorly trained teachers into the system is stopped and the quality of instruction is improved.

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This can only be done through in-service training.

MED authorities are concerned about the current certification program's quality. They are considering various options to develop new strategies and new certification requirements which are more appropriate for an in-service training program. It was suggested that innovative modifications to the program may serve as an incentive to retain uncertified teachers and improved in-service training modules based on content and not time will have a direct effect on the quality of instruction in the classroom.

As pointed out earlier in this analysis, it may be more difficult to modify the current accreditation course load than was initially perceived. It is anticipated that over the next six years, a minimum of 7,200 teachers will be accredited as compared to the initial projection of 3,500 made by some MED personnel interviewed by the Nicaragua Primary Education Sub-sector assessment team. This is realistic because the MED has the financial absorptive capacity to incorporate approximately 1,400 accredited teachers and approximately 250-350 newly certified teachers per year. Based on current primary school enrollment projections for this decade, it is anticipated that between 2,000-3,500 new teachers will be required to meet demand.

Significant resource allocation directly to the MED for existing pre-service and in-service training are not advisable until the resources have been utilized to train a cadre of decision makers; supervisors; methodologists; normal school teachers; certified teachers; non-certified teachers; teachers assigned to demonstration schools; teachers assigned to normal school practice teaching schools; parents; and community leaders.

The execution of the above strategy requires that Project resources be utilized early in the implementation process for timely and cost effective training and transfer of technology, as well as in the development of child-centered instructional materials. The solution of the problem of a lack of instructional materials and curriculum, must be resolved in a gradual phased and systematic manner. This wil be done prior to a nationwide attempt to institutionalize a fully operational in-service training unit within the MED. Available resources are not sufficient to address the vast number of problems faced by the GON and the MED.

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F. Curriculum Development and Instructional Materials

The current curriculum materials for primary school consist of a series of textbooks and accompanying teachers guides that have been adapted from existing texts developed for use in other Latin American countries. The books were an initial project of the Ministry of Education under the newly elected UNO government. There were two major concerns in providing the new books: first was to depoliticize the textbooks nationwide, which meant the replacement of the old books from the previous government which were seen as highly political and dogmatic. Second was to provide a variety of books and not have a *texto único* (single book) at each grade level.

The textbooks have been made possible through a donation of 12 million dollars from USAID/N through a buy-in to the centrally funded RTAC contract. It was clear that there would be no time to compose and print entirely new textbooks in less than the year between the change of government and the 1991 school year. Therefore, the MED organized teams to review the best existing books in Latin America, acquired through RTAC, and to adapt them to Nicaragua. Thus, the books have been printed primarily in Mexico, Colombia, and Peru.

Through RTAC, textbook publishers in Latin America were invited to submit books to MED for consideration. It was decided to examine the books, using the criteria of which books would be the easiest to adapt with the fewest changes to Nicaragua and its curriculum. A primary concern was to take out any political content and language that were not acceptable (e.g. if a book were Mexican, Nicaraguan vocabulary would have to be used where indicated, and Mexican political content would have to be adapted to Nicaragua). Also, the pictures and other material were adapted to the local scene to the extent possible. This effort was carried out between May and December 1990.

There is a general recognition among MED curriculum staff that, owing to time constraints, the task was done backwards. That is, the books were selected without a clear set of instructional objectives and grade level competencies to be achieved. However, uncertainty about the replacement of books, especially in the first three grades where books were sold to children, together with the need to develop a consensus on educational goals and objectives in Nicaragua, have delayed the development of grade level competencies. Without such specification, adaptations in existing teacher guides to make the current textbooks as useful as possible cannot be carried out.

Lack of defined grade level competencies and teachers guides that provide teachers with direction in using instructional materials to meet established learning criteria can lead teachers to retain children for reasons unrelated to children's ability

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with subject matter. A recent study on repetition in Honduras has shown that up to 72% of those repeating a grade had average scores that met the minimum requirement of 60% for advancement (McGuinn, et. al, 1991). This suggests that other factors such as attendance or student background may be influencing repetition rates.

Ministry administrators and planners are cognizant of the need to improve the quality of instructional delivery in order to increase the internal efficiency of the Nicaraguan education system. The recent National Congress on Education (MED, 1991a) stressed primary education as a high national priority and the importance of improving the quality of instructional materials by making them sensitive to the pluralistic nature of Nicaraguan society, especially as pertains to basic skills in language arts and mathematics. Consistent with the consensus gained at this conference is a preliminary national education plan (MED, September 1991) that has been developed for the period 1992-1996. This plan provides detailed objectives for primary education which can serve as the first step in establishing grade level competencies to guide the development of appropriate instructional materials.

The curriculum department of the MED has also developed a four-year plan (MED, 1991b) that focuses on establishing a profile of the competencies needed by children at different grade levels and developing materials that encourage active learning. Activities are to begin with the first two grades in the areas of mathematics and reading and writing, during the 1992 school year. Subsequent years will be devoted to testing third and fourth grade then fifth and sixth grade materials. It is envisioned that all subjects will be covered simultaneously in these grades. In each case, the testing year will be followed by implementation of the innovations in primary classrooms in the subsequent year. Professionals in the curriculum division recognize that the plan is extremely ambitious considering that the majority of the staff are educators with specialization in a specific subject matter and no formal training in curriculum development. Similarly, the plan's focus on multiple subjects at each grade level will severly tax the limited capacity of the curriculum development unit. The task is further complicated by additional objectives to meet the needs of special populations and individual communities through the curriculum development effort.

Based on the analysis, there is a need to create a capacity within the curriculum department to develop appropriate modular instructional materials that have the flexibility to be used effectively in a variety of current and future instructional configurations (e.g. unitary first and second grade, multigrade classrooms) and will be employed to improve the internal efficiency of the Nicaraguan primary education system. These materials should focus directly on educational quality as defined

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through student grade level competencies identified by the MED. The targeting of competencies needed for academic advancement should allow the development of a coherent curriculum addressing the serious problem of repetition, which is estimated as high as 50% in the first grade. Improved curriculum development capacity should also allow the development of appropriate modules that reflect local community and cultural needs in support of the ongoing municipalization effort of the Ministry of Education.

As the major problems with repetition in the Nicaraguan primary education system occur in the early years of primary schooling, the curriculum development and instructional materials design component of the project should focus on the first four years of primary education. Upper grades will, however, also be benefitted through improved teacher guides that tie the use of existing texts closely to Ministry instructional objectives and through the replacement of current texts lost through natural attrition.

The development of the capacity to design, produce or procure, distribute, and monitor the use of instructional materials that are adequate to meet Nicaragua's primary education goals cannot be a rapid process. It will require a series of systematic interrelated activities that will take advantage of existing resources while developing both new capabilities and materials. Three major acitivities: a) maximization of the utility of current texts through the creation of new teacher guides; b) development and testing of new materials for the first four grades; and c) development of mechanisms to ensure adequate cost recovery on instruction materials, are proposed. These major actvities should be complemented by ancillary activities designed to improve instructional delivery. They include: development of student assessment procedures; sensitizing teachers grade-level competencies; and provision of classroom resources.

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ANNEX 9: Statutory Checklist
(Basic Education Project)

Basic Education (BASE)
Project No. 524-0329

Listed below are statutory criteria applicable to the assistance resources themselves, rather than to the eligibility of a country to receive assistance. This section is divided into three parts. Part A includes criteria applicable to both Development Assistance and Economic Support Fund resources. Part B includes criteria applicable only to Development Assistance resources. Part C includes criteria applicable only to Economic Support Funds.

CROSS REFERENCE: IS COUNTRY CHECKLIST UP TO DATE?

Yes

A. CRITERIA APPLICABLE TO BOTH DEVELOPMENT ASSISTANCE AND ECONOMIC SUPPORT FUNDS

A.

1. Host Country Development Efforts (FAA Sec. 601(a)): Information and conclusions on whether assistance will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions.

1. a) Nicaragua is following a private enterprise approach which includes the promotion of exports and international trade. b) The new elected Government of Nicaragua is pursuing a strategy to foster private initiative and competition. c) N/A. The project has no credit components. d) N/A. e) N/A. This is a basic education project. f) N/A.

2. U.S. Private Trade and Investment (FAA Sec. 601(b)): Information and conclusions on how assistance will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

2. The project will help introduce U.S. technology and experience on the latest, state-of-the-art technology to improve the quality and efficiency of basic education through U.S. technical assistance, training and instructional materials. Practically all project commodities will be imported from the U.S., thus increasing U.S. exports.

3. Congressional Notification

3.

a. General requirement (FY 1991 Appropriations Act Secs. 523 and 591; obligated for an activity not previously justified to Congress, or for an amount in excess of amount previously justified to Congress, has Congress been properly notified (unless the notification requirement has been waived because of substantial risk to human health or welfare)?

a. Notification was sent to Congress in February 1992 and the 15-day waiting expired on March 13, 1992, without objection.

b. Notice of new account obligation (FY 1991 Appropriations Act Sec. 514): If funds are being obligated under an appropriation account to which they were not appropriated, has the President consulted with and provided a written justification to the House and Senate Appropriations Committees and has such obligation been subject to regular notification procedures?

b. N/A

c. Cash transfers and nonproject sector assistance (FY 1991 Appropriations Act Sec. 575(b) (3)): If funds are to be made available in the form of cash transfer or nonproject sector assistance, has the Congressional notice included a detailed description of how the funds will be used, with a discussion of U.S. interests to be served and a description of any economic policy reforms to be promoted?

c. N/A

4. Engineering and Financial Plans (FAA Sec. 611(a)): Prior to an obligation in excess of $500,000, will there be: (a) engineering, financial or other plans necessary to carry out the assistance; and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

4. N/A. No engineering plans are required for the activities contemplated in the project.

5. Legislative Action (FAA Sec. 611(a)(2): If legislative action is required within recipient country with respect to an obligation in excess of $500,000, what is the basis for a reasonable expectation that such action will be completed in time to permit orderly accomplishment of the purpose of the assistance?

5. The project does not depend on further legislative actions in Nicaragua.

6. Water Resources (FAA Sec. 611(b); FY 1991 Appropriations Act Sec. 501): If Project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See A.I.D. Handbook 3 for guidelines.)

6. N/A

7. Cash Transfer and Sector Assistance (FY 1991 Appropriations Act Sec. 575(b)): will cash transfer or nonproject sector assistance be maintained in a separate account and not commingled with other funds (unless such requirements are waived by Congressional notice for nonproject sector assistance)?

7. N/A

8. Capital Assistance (FAA Sec. 611(e)):

8. N/A

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If projects is capital assistance (e.g., construction), and total U.S. assistance for it will exceed $1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability to maintain and utilize the project effectively?

9. Multiple Country Objectives (FAA Sec. 601(a)): Information and conclusions on whether projects will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

9. See Item 1. above

10. U.S. Private Trade (FAA Sec. 601 (b)): Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

10. See Item 1. above.

11. Local Currencies

11.

a. Recipient Contributions (FAA Secs. 612(b), 636(h)): Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.

a. The GON, through the Ministry of Education (MED), will provide contributions in-kind, such as office space, fuel for project-financed vehicles, and counterpart personnel that otherwise would require the purchase of local currency to cover the related local costs.

b. U.S.-Owned Currency (FAA Sec. 612(d)): Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

b. No.

c. Separate Account (FY 1991 Appropriations Act Sec. 575). If assistance is furnished to a foreign government under arrangements which result in the generation of local currencies:

c. N/A. This Project will not generate local currency.

(1) Has A.I.D. (a) required that local currencies be deposited in a separate account established by the recipient government, (b) entered into an agreement with that government providing the amount of local currencies to be generated and the terms and conditions under which the currencies so deposited

c.(1) N/A

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may be utilized, and (c) established by agreement the responsibilities of A.I.D. and that government to monitor and account for deposits into and disbursements from the separate account?

(2) Will such local currencies, or an equivalent amount of local currencies, be used only to carry out the purposes of the DA or ESF chapters of the FAA (depending on which chapter is the source of the assistance) or for the administrative requirements of the United States Government?

c. (2) N/A

(3) Has A.I.D. taken all appropriate steps to ensure that the equivalent of local currencies disbursed from the separate account are used for the agreed purposes?

c. (3) N/A

(4) If assistance is terminated to a country, will any unencumbered balances of funds remaining in a separate account be disposed of for purposes agreed to by the recipient government and the United States Government?

c. (4) N/A

12. Trade Restrictions

12.

a. Surplus Commodities (FY 1991 Appropriations Act Sec. 521(a)): If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?

a. N/A

b. Textiles (Lautenberg Amendment) (FY 1991 Appropriations Act Sec. 521 (c)): Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807," which allows reduced tariffs on articles assembled abroad from U.S. - made components) be used directly to procure feasibility studies, prefeasiblity studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purser worn on the person), work gloves or leather wearing apparel?

b.N/A

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13. Tropical Forests (FY 1991 Appropriations Act Sec. 533 (c) (3)): Will funds be used for any program, project or activity which would (a) result in any significant loss of tropical forests, or (b) involve industrial timber extraction in primary tropical forest areas?	13. N/A
14. Sahel Accounting (FAA Sec. 121 (d)): If a Sahel project, has a determination been made that the host government has an adequate systems for accounting for and controlling receipt and expenditure of project funds (either dollars or local currency generated therefrom)?	14. N/A
15. PVO Assistance	15.
a. Auditing and registration (FY 1991 Appropriations Act Sec. 537): If assistance is being made available to a PVO, has that organization provided upon timely request any document, file, or record necessary to auditing requirements of A.I.D., and is the PVO registered with A.I.D.?	a. N/A. The project does not anticipate the provision of assistance through PVOs.
b. Funding sources (FY 1991 Appropriations Act, Title II, under heading "Private and Voluntary Organizations"): If assistance is to be made to a United States PVO (other than a cooperative development organization), does it obtain at least 20 percent of its total annual funding for international activities from sources other than the United States Government?	b. N/A
16. Project Agreement Documentation (State Authorization Sec. 139 (as interpreted by conference report)): Has confirmation of the date of signing of the project agreement, including the amount involved, been cabled to State L/T and A.I.D. LEG within 60 days of the agreement's entry into force with respect to the United States, and has the full text of the agreement been pouched to those same offices? (See Handbook 3, Appendix 6G for agreements covered by this provision).	16. N/A
17. Metric System (Omnibus Trade and Competitiveness Act of 1988 Sec. 5164, as interpreted by conference report, amending Metric Conversion Act of 1975 Sec. 2, and as implemented through A.I.D. policy): Does the assistance activity use the metric system of measurement in its procurement, grants, and other business-related activities, except to the extent	17. Yes.

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that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of measure from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?

18. Women in Development (FY 1991 Appropriations Act, Title II, under heading "Women in Development"): Will assistance be designed so that the percentage of women participants will be demonstrably increased?

18. Yes. The project will train over 12,000 teachers most of whom are women.

19. Regional and Multilateral Assistance (FAA Sec. 209): Is assistance more efficiently and effectively provided through regional or multilateral organizations? If so, why is assistance not so provided? Information and conclusions on whether assistance will encourage developing countries to cooperate in regional development programs.

19. No. The assistance to be provided must be specific to the Nicaraguan unique situation. However, some training activities may be provided through regional organizations.

20. Abortions (FY 1991 Appropriations Act, Title II, under heading "Population, DA," and Sec. 525):

20. N/A

a. Will assistance be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization?

a. N/A.

b. Will any funds be used to lobby for abortion?

b. No.

21. Cooperatives (FAA Sec. 111): will assistance help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward a better life?

21. N/A

22. U.S.-Owned Foreign Currencies

22.

a. Use of currencies (FAA Secs. 612(b), 636(h); FY 1991 Appropriations Act Secs. 507, 509): Describe steps taken to assure that, to the maximum extent possible, foreign currencies owned by the U.S. are

a. N/A

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utilized in lieu of dollars to meet the cost of contractual and other services.

b. Release of currencies (FAA Sec. 612 (d)): Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

b. N/A.

23. Procurement

23.

a. Small business (FAA Sec. 602(a)): Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed?

a. Yes. Small qualified firms will be invited to submit proposals for the provision of goods and services under the project.

b. U.S. procurement (FAA Sec. 604(a)): Will all procurement be from the U.S. except as otherwise determined by the President or determined under delegation from him?

b. Yes.

c. Marine insurance (FAA Sec. 604(d)): If the cooperating country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company?

c. N/A

d. Non-U.S. agricultural procurement (FAA Sec. 604(e)): If non-U.S. procurement of agricultural commodity or product thereof is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in U.S.)

d. N/A

e. Construction or engineering services (FAA Sec. 604(g)): Will construction or engineering services be procured from firms of advanced developing countries which are otherwise eligible under Code 941 and which have attained a competitive capability in international markets in one of these areas? (Exception for those countries which receive direct economic assistance under the FAA and permit United States firms to compete for construction or engineering services financed from assistance programs of these countries.)

e. N/A.

f. Cargo preference shipping (FAA Sec. 603)): Is the shipping excluded from compliance with the requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 percent of the gross tonnage of commodities (computed

f. No.

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separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent such vessels are available at fair and reasonable rates?

g. Technical assistance (FAA Sec. 621(a)): If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? Will the facilities and resources of other Federal agencies be utilized, when they are particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

g. Yes. Technical Assistance will be provided by U.S. firms.

h. U.S. air carriers (International Air Transportation Fair Competitive Practices Act, 1974): If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available?

h. Yes.

i. Termination for convenience of U.S. Government (FY 1991 Appropriations Act Sec. 504): If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States?

i. Yes. The contract will contain such termination clause.

j. Consulting services (FY 1991 Appropriations Act Sec. 524): If assistance is for consulting service through procurement contract pursuant to 5 U.S.C. 3109, are contract expenditures a matter of public record and available for public inspection (unless otherwise provided by law or Executive order)?

j. Yes.

k. Metric conversion (Omnibus Trade and Competitiveness Act of 1988, as interpreted by conference report, amending Metric Conversion Act of 1975 Sec. 2, and as implemented through A.I.D. policy): Does the assistance program use the metric system of measurement in its procurement, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of

k. Yes.

measure from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?

1. Competitive Selection Procedures (FAA Sec. 601(e)): Will the assistance utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise? — 1. Yes.

24. Construction — 24.

a. Capital project (FAA Sec. 601(d)): If capital (e.g., construction) project, will U.S. engineering and professional services be used? — a. N/A

b. Construction contract (FAA Sec. 611(c)): If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable? — b. N/A

c. Large projects, congressional approval (FAA Sec. 620(k)): If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed $100 million (except for productive enterprises in Egypt that were described in the Congressional Presentation), or does assistance have the express approval of Congress? — c. N/A

25. U.S. Audit Rights (FAA Sec. 301(d)): If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights? — 25. N/A

26. Communist Assistance (FAA Sec. 620(h). Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interest of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries? — 26. Yes.

27. Narcotics — 27.

a. Cash reimbursements (FAA Sec. 483): Will arrangements preclude use of financing to make reimbursements, in the form of cash payments, to persons whose illicit drug crops are eradicated? — a. Yes.

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b. Assistance to narcotics traffickers (FAA Sec. 487): Will arrangements take "all reasonable steps" to preclude use of financing to or through individuals or entities which we know or have reason to believe have either: (1) been convicted of a violation of any law or regulation of the United States or a foreign country relating to narcotics (or other controlled substances); or (2) been an illicit trafficker in, or otherwise involved in the illicit trafficking of, any such controlled substance?	b. Yes.
28. Expropriation and Land Reform (FAA Sec. 620(g)): Will assistance preclude use of financing to compensate owners for expropriated or nationalized property, except to compensate foreign nationals in accordance with a land reform program certified by the President?	28. Land reform efforts will not be supported through this project.
29. Police and Prisons (FAA Sec. 660): Will assistance preclude use of financing to provide training, advice, or any financial support for police, prisons, or other law enforcement forces, except for narcotics programs?	29. Yes.
30. CIA Activities (FAA Sec. 662): Will assistance preclude use of financing for CIA activities?	30. Yes.
31. Motor Vehicles (FAA Sec. 636(i)): Will assistance preclude use of financing for purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained?	31. Yes. All motor vehicles financed under this Project will be manufactured in the U.S.
32. Military Personnel (FY 1991 Appropriations Act Sec. 503): Will assistance preclude use of financing to pay pensions, annuities, retirement pay, or adjusted service compensation for prior or current military personnel?	32. Yes.
33. Payment of U.N. Assessments (FY 1991 Appropriations Act Sec. 505): Will assistance preclude use of financing to pay U.N. assessments, arrearage or dues?	33. Yes.
34. Multilateral Organization Lending (FY 1991 Appropriations Act Sec. 506): Will assistance preclude use of financing to carry out provisions of FAA section 209(d) (transfer of FAA funds to multilateral organizations for lending)?	34. Yes.
35. Export of Nuclear Resources (FY 1991 Appropriations Act Sec. 510): Will assistance preclude use of financing to	35. Yes.

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finance the export of nuclear equipment, fuel, or technology?

36. Repression of Population (FY 1991 Appropriations Act Sec. 511): Will assistance preclude use of financing for the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights?

36. Yes.

37. Publicity or Propaganda (FY 1991 Appropriations Act Sec. 516): Will assistance be used for publicity or propaganda purposes designed to support or defeat legislation pending before Congress, to influence in any way the outcome of a political election in the United States, or for any publicity or propaganda purposes not authorized by Congress?

37. No.

38. Marine Insurance (FY 1991 Appropriations Act Sec. 563): Will any A.I.D. contract and solicitation, and subcontract entered into under such contract, include a clause requiring that U.S. marine insurance companies have a fair opportunity to bid for marine insurance when such insurance is necessary or appropriate?

38. Yes.

39. Exchange for Prohibited Act (FY 1991 Appropriations Act Sec. 569): Will any assistance be provided to any foreign government (including any instrumentality or agency thereof), foreign person, or United States person in exchange for that foreign government or person undertaking any action which is, if carried out by the United States Government, a United States official or employee, expressly prohibited by a provision of United States law?

39. No.

B. CRITERIA APPLICABLE TO DEVELOPMENT ASSISTANCE ONLY

B. CRITERIA APPLICABLE TO DEVELOPMENT ASSISTANCE ONLY

1. Agricultural Exports (Bumpers Amendment) (FY 1991 Appropriations Act Sec. 521(b), as interpreted by conference report for original enactment): If assistance is for agricultural development activities (specifically, any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or training), are such activities: (1) specifically and principally designed to increase agricultural exports by the host country to a country other than the United States, where the export would lead to direct

1. N/A.

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competition in that third country with exports of a similar commodity grown or produced in the United States, and can the activities reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity; or (2) in support of research that is intended primarily to benefit U.S. producers?

2. Tied Aid Credits (FY 1991 Appropriations Act, Title II, under heading "Economic Support Fund"): Will DA funds be used for tied aid credits?

2. N/A

3. Appropriate Technology (FAA Sec. 107): Is special emphasis placed on use of appropriate technology (defined as relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?

3. N/A

4. Indigenous Needs and Resources (FAA Sec. 281(b)): Describe extent to which the activity recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

4. The project was developed in close collaboration with local counterparts. It seeks to train significant number of Nicaraguans, and to strengthen institutions at both the national and local levels.

5. Economic Development (FAA Sec. 101(a)): Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?

5. Yes. A strong, sound basic education education system is essential to sustained development.

6. Special Development Emphases (FAA Secs. 102(b), 113, 281(1)): Describe extent to which activity will: (a) effectively involve the poor in development by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, dispersing investment from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions; (b) encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and

6.

(a) The project will improve the quality and efficiency of primary education in Nicaragua and will benefit over 700,000 basic education children in all areas throughout the country. Most of the school children are poor.

(b) A sound education system which the project seeks to promote is vital to the development of democratic values.

(c) The project supports the efforts of the MED.

(d) A significant number of the project beneficiaries are female teachers who will be trained under the project.

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(e) utilize and encourage regional cooperation by developing countries.	(e) Consultants to be provided under the project will try to use relevant, successful experiences of countries in the region in the educational sector.
7. Recipient Country Contribution (FAA Secs. 110, 124(d)): Will the recipient country provide at least 25 percent of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?	7. Initial estimates show that the GON will contribute about 20 percent of the total project cost. The balance of the 25 percent has been waived, per delegation of authority to USAID/Nicaragua. The AID Administrator has approved RLDC status for Nicaragua.
8. Benefit to Poor Majority (FAA Sec. 128(b)): If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority?	8. The target population includes Nicaragua's primary school children. Most of these children are poor.
9. Abortions (FAA Sec. 104(f); FY 1991 Appropriations Act, Title II, under heading "Population, DA," and Sec. 535):	9.
a. Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions?	a. No.
b. Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilizations?	b. No.
c. Are any of the funds to be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization?	c. No.
d. Will funds be made available only to voluntary family planning projects which offer, either directly or through referral to, or information about access to, a broad range of family planning methods and services?	d. N/A.
e. In awarding grants for natural family planning, will any applicant be discriminated against because of such applicant's religious or conscientious commitment to offer only natural family planning?	e. N/A.

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f. Are any of the funds to be used to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning?	f. No.
g. Are any of the funds to be made available to any organization if the President certifies that the use of these funds by such organization would violate any of the above provisions related to abortions and involuntary sterilization?	g. No.
10. Contract Awards (FAA Sec. 601(e)): Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?	10. Yes.
11. Disadvantaged Enterprises (FY 1991 Appropriations Act Sec. 567): What portion of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, colleges and universities having a student body in which more than 40 percent of the students are Hispanic Americans, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)?	11. Up to 33 percent of the A.I.D. funds are expected to be used for goods and services to be procured through small businesses, expectedly 8(a) firms.
12. Biological Diversity (FAA Sec. 119(g): Will the assistance: (a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity; (b) be provided under a long-term agreement in which the recipient country agrees to protect ecosystems or other wildlife habitats; (c) support efforts to identify and survey ecosystems in recipient countries worthy of protection; or (d) by any direct or indirect means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas?	12. N/A.
13. Tropical Forests (FAA Sec. 118; FY 1991 Appropriations Act Sec. 533(c)-(e) & (g)):	13.
a. A.I.D. Regulation 16: Does the assistance comply with the environmental procedures set forth in A.I.D. Regulation 16?	a. Yes.

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b. Conservation: Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent

b. N/A.

c. Forest degradation: Will assistance be used for: (1) the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; (2) actions which will significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas; (3) activities which would result in the conversion of forest lands to the rearing of livestock; (4) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands; (5) the colonization of forest lands; or (6) the construction of dams or other water control structures which flood relatively undegraded forest lands, unless with respect to each such activity an environmental assessment indicates that the activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?

c. N/A.

d. Sustainable forestry: If assistance relates to tropical forests, will project assist countries in developing a systematic analysis of the appropriate use of their total tropical forest resources, with the goal of developing a national program for sustainable forestry?

d. N/A.

e. Environmental impact statements: Will funds be made available in accordance with provisions of FAA Section 117(c) and applicable A.I.D. regulations requiring an environmental impact statement for activities significantly affecting the environment?

e. N/A.

14. Energy (FY 1991 Appropriations Act Sec. 533(c): If assistance relates to energy, will such assistance focus on: (a) end-use energy efficiency, least-cost energy planning, and renewable energy

14. N/A.

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resources, and (b) the key countries where assistance would have the greatest impact on reducing emissions from greenhouse gases?

15. Sub-Saharan Africa Assistance (FY 1991 Appropriations Act Sec. 562, adding a new FAA chapter 10 (FAA Sec. 496)): If assistance will come from the Sub-Saharan Africa DA account, is it: (a) to be used to help the poor majority in Sub-Saharan Africa through a process of long-term development and economic growth that is equitable, participatory, environmentally sustainable, and self-reliant; (b) to be used to promote sustained economic growth, encourage private sector development, promote individual initiatives, and help to reduce the role of central governments in areas more appropriate for the private sector; (c) being provided in accordance with the policies contained in FAA section 102; (d) being provided in close consultation with African, United States and other PVOs that have demonstrated effectiveness in the promotion of local grassroots activities on behalf of long-term development in Sub-Saharan Africa; (e) being used to promote reform of sectoral economic policies, to support the critical sector priorities of agricultural production and natural resources, health, voluntary family planning services, education, and income generating opportunities, to bring about appropriate sectoral restructuring of the Sub-Saharan African economies, to support reform in public administration and finances and to establish a favorable environment for individual enterprise and self-sustaining development, and to take into account, in assisted policy reforms, the need to protect vulnerable groups; (f) being used to increase agricultural production in ways that protect and restore the natural resource base, especially food production, to maintain and improve basic transportation and communication networks, to maintain and restore the renewable natural resource base in ways that increase agricultural production, to improve health conditions with special emphasis on meeting the health needs of mothers and children, including the establishment of self-sustaining primary health care systems that give priority to preventive care, to provide increased access to voluntary family planning services, to improve basic literacy and mathematics especially to those outside the formal educational system and to improve primary education, and to develop

15. N/A.

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income-generating opportunities for the unemployed and underemployed in urban and rural areas?

16. Debt -for-Nature Exchange (FAA Sec. 463): If project will finance a debt-for-nature exchange, describe how the exchange will support protection of: (a) the world's oceans and atmosphere, (b) animal and plant species, and (c) parks and reserves; or describe how the exchange will promote: (d) natural resource management, (e) local conservation programs, (f) conservation training programs, (g) public commitment to conservation, (h) land and ecosystem management, and (i) regenerative approaches in farming, forestry, fishing, and watershed management.

16. N/A.

17. Deobligation/Reobligation (FY 1991 Appropriations Act Sec. 515): If deob/reob authority is sought to be exercised in the provision of DA assistance, are the funds being obligated for the same general purpose, and for countries within the same region as originally obligated, and have the House and Senate Appropriations Committees been properly notified?

17. N/A.

18. Loans

a. Repayment capacity (FAA Sec. 122(b)): Information and conclusion on capacity of the country to repay the loan at a reasonable rate of interest.

b. Long-range plans (FAA Sec. 122(b)): Does the activity give reasonable promise of assisting long-range plans and programs designed to develop economic resources and increase productive capacities?

c. Interest rate (FAA Sec. 122(b)): If development loan is repayable in dollars, is interest rate at least 2 percent per annum during a grace period which is not to exceed ten years, and at least 3 percent per annum thereafter?

d. Exports to United States (FAA Sec. 620(d)): If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20 percent of the enterprise's annual production during the life of the loan, or has the requirement to enter into such an agreement been waived by the President

18. N/A. The project is grant-funded.

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because of a national security interest?

19. Development objectives (FAA Secs. 102(a), 111, 113, 281(a)): Extent to which activity will: (1) effectively involve the poor in development, by expanding access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (2) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (3) support the self-help efforts of developing countries; (4) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (5) utilize and encourage regional cooperation by developing countries?

20. Agriculture, Rural Development and Nutrition, and Agricultural Research (FAA Secs. 103 and 103A):

20. N/A.

a. Rural poor and small farmers: If assistance is being made available for agriculture, rural development or nutrition, describe extent to which activity is specifically designed to increase productivity and income of rural poor; or if assistance is being made available for agricultural research, has account been taken of the needs of small farmers, and extensive use of field testing to adapt basic research to local conditions shall be made.

b. Nutrition: Describe extent to which assistance is used in coordination with efforts carried out under FAA Section 104 (Population and Health) to help improve nutrition of the people of developing countries through encouragement of increased production of crops with greater nutritional value; improvement of planning, research, and education with respect to nutrition, particularly with reference to improvement and expanded use to indigenously produced foodstuffs; and the undertaking of pilot or demonstration programs explicitly addressing the problem of malnutrition of poor and vulnerable people.

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c. Food security: Describe extent to which activity increases national food security by improving food policies and management and by strengthening national food reserves, with particular concern for the needs of the poor, through measures encouraging domestic production, building national food reserves, expanding available storage facilities, reducing post harvest food losses, and improving food distribution.

21. Population and Health (FAA Secs. 104(b) and (c)): If assistance is being made available for population or health activities, describe extent to which activity emphasizes low-cost, integrated delivery systems for health, nutrition and family planning for the poorest people, with particular attention to the needs of mothers and young children, using paramedical and auxiliary medical personnel, clinics and health posts, commercial distribution systems, and other modes of community outreach.

21. N/A.

22. Education and Human Resources Development (FAA Sec. 105): If assistance is being made available for education, public administration, or human resource development, describe (a) extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, and strengthens management capability of institutions enabling the poor to participate in development; and (b) extent to which assistance provides advanced education and training of people of developing countries in such disciplines as are required for planning and implementation of public and private development activities.

22.

(a) The project will improve the efficiency and quality of Nicaragua's primary education system. The improved system will benefit children attending primary schools in rural and urban areas throughout Nicaragua. The project will also strengthen the capability of the MED at both the central and local levels so it can sustain the improvements in primary education resulting from the project.

(b) See (a) above.

23. Energy, Private Voluntary Organizations, and Selected Development Activities (FAA Sec. 106): If assistance is being made available for energy, private voluntary organizations, and selected development problems, describe extent to which activity is:

a. concerned with date collection and analysis, the training of skilled personnel, research on and development of suitable energy sources, and pilot projects to test new methods of energy production; and facilitative of research on and development and use of small-scale, decentralized, renewable energy sources for rural areas, emphasizing development of energy resources which are

23. N/A.

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environmentally acceptable and require minimum capital investment;

b. concerned with technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;

c. research into, and evaluation of, economic development processes and techniques;

d. reconstruction after natural or manmade disaster and programs of disaster preparedness;

e. for special development problems, and to enable proper utilization of infrastructure and related projects funded with earlier U.S. assistance;

f. for urban development, especially small, labor-intensive enterprises, marketing systems for small producers, and financial or other institutions to help urban poor participate in economic and social development.

24. Sahel Development (FAA Secs. 120-21). If assistance is being made available for the Sahel region, describe: (a) extent to which there is international coordination in planning and implementation; participation and support by African countries and organizations in determining development priorities; and a long-term, multidonor development plan which calls for equitable burden-sharing with other donors; (b) whether a determination has been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of projects funds (dollars or local currency generated therefrom).

24. N/A.

C. CRITERIA APPLICABLE TO ECONOMIC SUPPORT FUNDS ONLY

C. N/A.

1. Economic and Political stability (FAA Sec. 531(a): Will this assistance promote economic and political stability? To the maximum extent feasible, is this assistance consistent with the policy directions, purposes, and programs of Part I of the FAA?

2. Military Purposes (FAA Sec. 531(e)): Will this assistance be used for military or paramilitary purposes?

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3. Commodity Grants/Separate Accounts (FAA Sec. 609): If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made?

4. Generation and Use of Local Currencies (FAA Sec. 531(d)): Will ESF funds made available for commodity import programs or other program assistance be used to generate local currencies? If so, will at least 50 percent of such local currencies be available to support activities consistent with the objectives of FAA sections 103 through 106?

5. Cash Transfer Requirements (FY 1991 appropriations Act, Title II, under heading "Economic Support Fund," and Sec. 575(b)). If assistance is in the form of a cash transfer:

a. Separate account: Are all such cash payments to be maintained by the country in a separate account and not to be commingled with any other funds?

b. Local currencies: Will all local currencies that may be generated with funds provided as a cash transfer to such a country also be deposited in a special account, and has A.I.D. entered into an agreement with that government setting forth the amount of the local currencies to be generated, the terms and conditions under which they are to be used, and the responsibilities of A.I.D. and that government to monitor and account for deposits and disbursements?

c. U.S. Government use of local currencies: Will all such local currencies also be used in accordance with FAA Section 609, which requires such local currencies to be made available to the U.S. government as the U.S. determines necessary for the requirements of the U.S. Government, and which requires the remainder to be used for programs agreed to by the U.S. Government to carry out the purposes for which new funds authorized by the FAA would themselves be available?

d. Congressional notice: Has Congress received prior notification providing in detail how the funds will be used, including the U.S. interests that will be served by the assistance, and, as appropriate, the economic policy reforms that will be promoted by the cash transfer assistance?

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DRAFTER: GC/LP:EHonnold:4/11/91:2169J

Column on how Basic Education Project meets criteria drafted by:
USAID/Nicaragua:PDIS:AMDiaz:3/20/92
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