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

DOMINICAN REPUBLIC

PROJECT PAPER

RURAL EDUCATION EXPANSION

AID/LAC/P-194

Loan Number: 517-V-049
Project Number: 517-0172

UNCLASSIFIED

PDAAP 915

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| AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT DATA SHEET | | 1. TRANSACTION CODE <input type="checkbox"/> A = Add <input checked="" type="checkbox"/> A <input type="checkbox"/> C = Change <input type="checkbox"/> D = Delete | Amendment Number _____ DOCUMENT CODE 3 |
| 2. COUNTRY/ENTITY Dominican Republic | | 3. PROJECT NUMBER 517-0172 | |
| 4. BUREAU/OFFICE Latin America and the Caribbean | | 5. PROJECT TITLE (maximum 40 characters) Rural Education Expansion | |
| 6. PROJECT ASSISTANCE COMPLETION DATE (PACD) MM DD YY 11 29 89 | | 7. ESTIMATED DATE OF OBLIGATION (Under 'B' below, enter 1, 2, 3, or 4) A. Initial FY 84 B. Quarter 4 C. Final FY 87 | |

| 8. COSTS (\$000 OR EQUIVALENT \$1 =) | | | | | | |
|---------------------------------------|-------------|-----------|-----------|-----------------|-----------|-----------|
| A. FUNDING SOURCE | FIRST FY 84 | | | LIFE OF PROJECT | | |
| | B. FX | C. L/C | D. Total | E. FX | F. L/C | G. Total |
| AID Appropriated Total | | | | | | |
| (Grant) | (-) | (-) | (-) | (1,350) | (650) | (2,000) |
| (Loan) | (625) | (1,875) | (2,500) | (1,503) | (4,497) | (6,000) |
| Other U.S. | 1. | | | | | |
| | 2. | | | | | |
| Host Country | | | | | | |
| Other Donor(s) | | | | | | |
| TOTALS | | | | | | |

| 9. SCHEDULE OF AID FUNDING (\$000) | | | | | | | | | |
|------------------------------------|-------------------------|-----------------------|---------|------------------------|---------|--------------------------------|---------|--------------------|---------|
| A. APPROPRIATION | B. PRIMARY PURPOSE CODE | C. PRIMARY TECH. CODE | | D. OBLIGATIONS TO DATE | | E. AMOUNT APPROVED THIS ACTION | | F. LIFE OF PROJECT | |
| | | 1. Grant | 2. Loan | 1. Grant | 2. Loan | 1. Grant | 2. Loan | 1. Grant | 2. Loan |
| (1) EH | 600-B | 660 | 630 | - | - | - | 2,500 | 2,000 | 6,000 |
| (2) | | | | | | | | | |
| (3) | | | | | | | | | |
| (4) | | | | | | | | | |
| TOTALS | | | | - | - | - | 2,500 | 2,000 | 6,000 |

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| 10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each) 636 634 640 660 670 | | | | | 11. SECONDARY PURPOSE CODE | | | | |
| 12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each) A. Code BR R/ED TNG LAB B. Amount 100% 25% 65% 50% | | | | | | | | | |

13. PROJECT PURPOSE (maximum 480 characters)

The purpose is to continue and strengthen the education reform initiatives of the GODR and to expand the geographic zone of PIDE to provide basic education services to rural children in the Cibao Oriental region of the country.

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| 14. SCHEDULED EVALUATIONS Interim MM YY MM YY Final MM YY 09 87 01 88 04 89 | | | | 15. SOURCE/ORIGIN OF GOODS AND SERVICES <input checked="" type="checkbox"/> 000 <input checked="" type="checkbox"/> 941 <input checked="" type="checkbox"/> Local <input type="checkbox"/> Other (Specify) | | | |
|--|--|--|--|--|--|--|--|

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

Approval of Methods of Implementation/Financing: Steve Liapis, Controller

| | | |
|------------------------|--|--|
| 17. APPROVED BY | Signature:  | 18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION MM DD YY 08 30 84 |
| | Title: Philip Schwab Mission Director, USAID/DR | |

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PROJECT AUTHORIZATION

NAME OF THE COUNTRY: Dominican Republic
NAME OF THE PROJECT: Rural Education Expansion
NUMBER OF PROJECT : 517-0172
NUMBER OF LOAN : 517-V-049

Pursuant to Section 105 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Rural Education Expansion Project for the Dominican Republic involving planned obligations of not to exceed Six Million United States Dollars (\$6,000,000) in loan funds ("Loan") and Two Million United States Dollars (\$2,000,000) in grant funds ("Grant") over a five year period from date of authorization, subject to the availability of funds in accordance with A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project.

2. The project ("Project") consists of technical and commodity assistance to the Secretariat of State for Education, Fine Arts and Worship (SEEBAC) for the continuation and expansion of the education reform initiatives undertaken in rural primary education and shall include as components the construction and rehabilitation of schools in the Cibao Oriental region of the country; teacher and administrator

training; information systems strengthening and the development of a pilot radio mathematics program.

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 covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate;

a. Interest Rate and Terms of Payment (Loan)

The Cooperating Country shall repay the Loan to A.I.D. in U.S. Dollars within twenty-five (25) years from the date of first disbursement of the Loan, including a grace period of not to exceed ten (10) years. The Cooperating Country shall pay to A.I.D. in U.S. Dollars interest from the date of first disbursement of the Loan at the rate of (i) two percent (2%) per annum during the first ten (10) years; and (ii) three percent (3%) per annum thereafter, on the outstanding disbursed balance of the loan and on any due and unpaid interest accrued thereon.

b. Source and Origin of Goods and Services (Loan)

Commodities financed by A.I.D. under the Loan shall have their source and origin in the Cooperating Country or countries included in A.I.D. Geographic Code 941, except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities or services shall have the Cooperating Country or countries included in A.I.D. Geographic Code 941 as their place of nationality, except as A.I.D. may otherwise agree in writing. Ocean shipping financed by A.I.D. under the Loan shall, except as A.I.D. may otherwise agree in writing, be

financed only on flag vessels of the Cooperating Country or of countries included in A.I.D. Geographic Code 941.

c. Source and Origin of Goods and Services (Grant)

Commodities financed by A.I.D. under the Grant shall have the source and origin in the United States or in the Cooperating Country, except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities or services shall have the Cooperating Country and 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.

d. Conditions Precedent

(1) First Disbursement. Prior to the first disbursement of the assistance, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the GODR will, 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) An opinion of the legal advisor to the GODR that the agreement has been duly authorized and/or ratified by and executed on behalf of the GODR and that it constitutes a valid and legally binding obligation of the GODR in accordance with all of its terms:

(b) A statement of the name of the person who will represent the GODR and of any additional representatives specified in section 9.2, and a specimen signature of each person specified in such statement; and

(c) Evidence that the PIDE Project Office is adequately and fully staffed according to the needs of the Project.

(2) Disbursement for Construction and/or Rehabilitation of Classroom and Ancillary Facilities. Prior to disbursement or the issuance by A.I.D. of documentation pursuant to which disbursement will be made to finance construction and/or rehabilitation activities, the GODR will, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D. evidence of (a) the appointment of an experienced civil engineer to act in the capacity of Construction Coordinator with adequate staff and support; (b) detailed criteria to be used in selecting the locations for the construction of school facilities; and (c) engineering designs, specifications and materials lists for each type of school construction.

(3) Disbursement for Radio-Mathematics Education. Prior to the disbursement or the issuance by A.I.D. of documentation pursuant to which disbursement will be made to finance activities for radio mathematics education, the GODR will, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D. evidence that a Department of Educational Radio has been established within the Directorate General of Educational Technology with adequate staff, facilities and budget to manage program activities.

(4) Disbursement for Information Systems Strengthening. Prior to disbursement or the issuance by A.I.D. of documentation pursuant to which disbursement will be made to finance information systems strengthening, the GODR will, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.,

evidence that an adequate number of staff positions have been filled with qualified individuals in order that project activities may be initiated.

(5) Disbursement for Teacher/Administrator Training. Prior to the disbursement or the issuance by A.I.D. of documentation pursuant to which disbursement will be made to finance teacher/administrator training activities, the GODR will, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D., evidence that a plan has been prepared detailing the initial implementation of the in-service training. This plan will be followed up and revised annually.

e. Covenants

The Cooperating country shall, except as A.I.D. may otherwise agree in writing, covenant as follows:

(1) Financing of School Maintenance. The Cooperating Country shall, except as A.I.D. may otherwise agree in writing, covenant that it agrees to utilize the SEEBAC budgetary resources now allocated to the rental of schools for the regular maintenance and upkeep of the newly constructed schools.


Philip R. Schwab, Director

8/20/84

Date

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PROJECT DESIGN AND DEVELOPMENT PERSONNEL

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| | |
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DOMINICAN REPUBLIC
PROJECT PAPER
RURAL EDUCATION EXPANSIO

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I. SUMMARY AND RECOMMENDATIONS

A. The Implementing Agency

The Rural Education Expansion Project (PIDE II) will be implemented in the same manner as its predecessor project, the Integrated Project for Educational Development (PIDE I). As such, the implementing agency for the Government of the Dominican Republic (GODR) will be the Secretariat of State for Education, Fine Arts and Worship (SEERAC)

B. The Project

The Dominican education system, although in the midst of a reform effort, is plagued by problems of over-centralization of administration and decision making, insufficient financial resources, lack of trained personnel at all levels, and the concentration in the urban areas of both human and financial resources. Rural primary education, in particular, continues to face the problems of insufficient access due to the lack of facilities, poorly trained and largely uncertified teachers, lack of equipment and supplies and high repetition and dropout rates.

To meet the needs of primary education, the priorities of the GODR are to expand coverage through construction of additional classroom space and provision of supplies and materials; and to upgrade educational quality through improvements in instruction and supervision. Inputs are required to correct deficiencies in the administrative and supervisory systems, and to alleviate the scarcity of qualified personnel. Data and research on primary education for planning purposes needs to be made available.

The USAID proposes to assist the GODR in improving the efficiency of and access to rural primary education through a project designed to be an expansion, replication and update of the PIDE I Project (517-0119). The new project proposes to extend the geographic area of coverage within the country and to deepen support in the following PIDE I activities: teacher and administrator training; provision of education materials; information systems; and the construction of facilities. Also, a new pilot activity in radio mathematics will be added during the life of the project.

C. Summary Findings

The Project Committee has reviewed all aspects of the proposed Rural Education Expansion Project and finds that it is technically, socially, economically and financially sound and consistent with the development objectives of the GODR and of the USAID. It has also been determined that the Secretariat of Education is capable of administering the project and disbursing the funds committed within the planned five year implementation period.

D. Recommendation

The Project Committee recommends that the Mission Director authorize a loan in the amount of \$6 million and a grant in the amount of \$2 million to the Government of the Dominican Republic to support the project herein described. The loan will be repaid over twenty-five years including a ten year grace period with interest at 2% during the grace period and 3% thereafter.

II. BACKGROUND

A. Socio-economic Conditions Affecting Rural Primary Education

The Dominican Republic with 5.6 million inhabitants has a rapidly growing population. The population growth rate for the period 1979-81 was 2.9, only minimally reduced from the rate of 2.96 for the period 1960-70. As a result of this population growth, the country continues to have a high dependency rate with 43% of the total population under 15 years and 50% under 18 years.

Notwithstanding an increasing trend toward urban/rural migration (an estimated 52% of the population is urban compared to 40% in 1970), the Dominican Republic remains a largely rural country. Agriculture is the most important productive sector and a source of employment, output for domestic consumption and export earnings. Nearly 3 million people live in rural areas and there are approximately 340,000 farms. Agriculture directly employs slightly more than 60% of the labor force and contributes slightly more than 16% of GNP.

Approximately one out of every three Dominicans is in the labor force--50% of the males and 20% of the females. Over 19% of the labor force is under twenty years age, and rural children between the ages of 10 and 14 participate at a rate four times greater than urban children. This is high for Latin American countries and reduces the educational attainment of the labor force as well as increases unemployment.

Unemployment is estimated at 24% but reaches much higher when underemployment is taken into consideration. Estimates indicate underemployment in rural areas to average 50% and 43% in urban areas. A National Planning Office survey showed that unemployment rates were almost the same for illiterates as those with ten or more years of education. These findings indicate that the level of educational attainment is immaterial for some levels of the labor force, reflecting the lack of economic growth, lack of job creation and shortage of specialized skills in the labor force.

The manpower analysis carried out for the Education Sector Assessment, from which the above information, is taken indicates that there is a shift from technical to non-technical or university to

non-university occupations. If the continued deterioration of the economy leads university graduates to accept jobs that do not require a university education, it will magnify the problem of underemployment. The trend toward expansion of higher education at the expense of primary education will exacerbate the problem and accelerate the already high emigration rates of highly skilled and educated manpower. Thus, the implications emphasize that priorities must shift from urban to rural needs and from university to skilled and technical education. A close look at the Dominican educational setting indicates a growing need to address the problems of primary, particularly rural, education as the first step in developing an adequate human resource base.

B. Educational Setting

1. Education Reform

The Education Reform, an effort begun in 1977, is based on the findings of the Education Sector Assessment undertaken by the GODR with the support of the USAID. This Assessment, the first of its kind in the Dominican Republic, indicated that access to education, literacy rates, and primary school graduation rates in the Dominican Republic were low in comparison to the rest of Latin America. Further, the Assessment found major deficiencies in most areas of the education sector. For example, education information and planning systems were not organized and existed on an ad-hoc basis only; the primary school curriculum was outdated, having been written in 1938; the number of teachers was inadequate, and they were mostly poorly trained; there was an overwhelming lack of educational facilities and equipment; and the administrative and management structure was so highly centralized that it did not take into account local and regional, especially rural, concerns. The Assessment also found that the problems were particularly concentrated at the primary school level.

The emphasis of the education reform program was on creating a more relevant education and providing equal opportunity and access to educational facilities. The basic elements of the reform included: 1) the provision of 4 years of primary education to all children; 2) gradual extension of education to provide six years of schooling for all children in the 7-14 year age group; and 3) curriculum reform placing increased emphasis on development of student potential including better social adaptation and response to the development requirements of the country.

In 1984, the Dominican education system is in transition. A new Organic Law (the legal basis of public education) has been submitted to Congress for approval; the Secretariat of Education is in the process of an administrative reform and the Education Reform of 1977 is still in the process of implementation. Some of the reforms have been implemented but many of its goals are unmet due largely to the lack of adequate resources, not the lack of commitment.

2. Structure

Formal education in the Dominican Republic remains a centralized, highly structured system managed from the offices of the Secretariat of Education in Santo Domingo. The system is organized into three levels: primary (grades 1-6), middle (grades 7-12) and higher education. Grades 1-6 are legally obligatory and prescribed for students aged 7-14 years. Two of the middle level grades, 7 and 8, are designated "intermediate." The remaining grades of the middle level provide traditional secondary school programs consisting of: teacher education (normal school), vocational/technical education and college preparatory education. The universities and technical institutes are not under the authority of SEEBAC, although some of them do receive Government financial support in the form of annual transfers from the education budget.

In the public primary schools the administrative structure of education is based on the núcleo system. Each núcleo covers approximately 10 square kilometers and contains within its confines a central school that offers grades one through eight, sub central schools located at distances of from 2 to 6 kilometers from the central school which offers grades one through six and satellite schools located at distances of from 6 to 10 kilometers from the sub-central schools which offer a minimum of four grades. A núcleo is headed by a director responsible for supervising and administering all the activities within the núcleo. This organizational structure utilizes scarce resources more efficiently within a dispersed rural population and provides some decentralization of responsibility from the previously highly centralized system. To date, there are 378 núcleos organized into 27 districts. The districts are organized into 9 regions, each with a Director and technical staff.

3. Coverage

Total school age population (5-19 years) in the Dominican Republic is 2.25 million. In 1980-81, primary enrollment totaled 1,080,000 students with 17,000 teachers distributed among 4,600 schools. This is an increase of over 33% over the past ten years. The increase can be attributed to demographic growth, improved access due to efforts under the educational reform program and, to some extent, greater awareness of the Dominican people of the benefits of education.

4. Curriculum and Educational Materials

The standard curriculum used in Dominican schools has, until recently, been very traditional and academic. The poor performance registered by contemporary students, especially in rural areas, has prompted a series of changes at the primary level, all designed to

enhance the relevance of the students' studies to the actual life he leads. As a result of the reform, student course loads have been reduced from 25 to 20 hours per week, materials have been added which relate to the environment and methodological changes have been introduced to increase student interest and participation. Courses are taught in the areas of language and communication, mathematics, social studies, nature, practical arts, and physical education.

There are very few educational materials and supplies found in schools. Almost all textbooks must be imported and are relatively expensive. Estimates show that fully 70% of the urban and almost all the rural students are without texts; 85% of primary schools report no blackboards; only 34% of the schools reported having sufficient desks for students.

The Inter-American Development Bank (IDB) is proposing a large loan to SEEBAC, one component of which will be the development, publication and distribution of textbooks. However, until such time as these materials are delivered Dominican primary schools, especially rural schools, make due with very little in the way of formal classroom materials.

5. Teachers

Teachers generally have a low level of training and preparation. Approximately 45% of the primary teachers are not considered fully qualified to teach at the primary levels. Estimates for the rural areas suggest that nearly 90% of the primary teachers are not qualified.

Teaching is not seen as a prestigious occupation. Teachers are paid very low salaries, averaging RD\$110 per month for non-certified and RD\$120 for a certified teacher. Primary classroom teaching is dominated by women and administrative positions are mainly held by men.

The mechanism for training teachers for the primary school system is the normal school. There are six normal schools which offer two years of primary teacher training for Grade 10 graduates. The normal schools maintain an enrollment of over 1,500 students and average 658 graduates per year. Although it is estimated that there are sufficient numbers of teachers graduating from training institutions to meet current and projected needs, the available data suggests that the quality of teacher training is not adequate.

The national student/teacher ratio is 59 students per teacher. The ratio is higher in rural schools averaging 65 students per teacher. In general, the high student/teacher ratio, low salary levels

and low level of training negatively impact on teacher effectiveness which affects the quality of instruction in the primary school.

6. Facilities

The Dominican Government over the years has never been able to meet the demand for public education, particularly at the primary level. The lack of physical infrastructure has been and remains a major obstacle. In order to increase coverage, it is necessary to increase the number of classrooms and use available classrooms to capacity. An education mapping exercise carried out in the late 1970's was an attempt to distribute educational resources and services more efficiently, effectively and equitably. The system has not met the expectations and the updated mapping exercise of 1983 demonstrates that much needs to be accomplished merely to meet the physical needs of the school system. For instance, over one third of the primary schools need repair, and fully 20% are in such bad condition as not to be serviceable. Also, most schools are without basic services: only 13% of the primary schools report having both water and electricity; 68% have neither.

The total number of classrooms has increased somewhat in recent years, mainly as a result of international donor assistance such as the PIDE project which recently constructed 1,400 classrooms. However, there is an estimated deficit of 4,661 classrooms at the primary level, not including replacement of classrooms in bad condition.

7. Financing

The share of the national budget allocated to SEEBAC has averaged 11% during the past 10 years. Within that allocation, the share of the SEEBAC budget for primary education has gradually increased from a low of 35% in 1976 to 41% in 1982; it is estimated to reach 43% in 1984.

In 1980-81, the average annual student cost for primary school was RD\$57.59 for the total number of students enrolled and RD\$58.79 for the number of students estimated in attendance. Per pupil expenditures vary: RD\$46 per rural pupil, RD\$105 per National District pupil and RD\$72 per pupil in other urban districts. Although costs are higher in urban schools and class size is smaller, the performance of urban schools is not significantly better than that of rural schools.

C. Conclusion: Critical Problems and Priorities in the Education Sector

By 1983, the USAID and GODR were concerned with assessing the overall progress of the education reform effort. To this end, a Sector Assessment Update was initiated. The document, coordinated by the Technical Planning Office of SEEBAC, financed by A.I.D. and carried out by a number of experts from the USDA Graduate School has been the focus

of much recent attention in the education sector. The purpose of the Update was to serve as a vehicle for systematic planning, identifying limitations and priorities, and providing a basis for investing resources and donor assistance.

The data presented in the Update demonstrates that the quality of and access to education in the Dominican Republic has improved somewhat between the years 1970-1980. For instance, the proportion of children five years and older without any school instruction declined from 37% to 29%; Dominicans with a primary education account for 51.5% of the population, a slight increase from 50.3% in 1970; and those with a high school education rose from 11.8 to 17% of the population. However, there are still major inequities in the system that, if not addressed, will impede continued improvement in internal efficiency, external efficiency and coverage in the education system in the country.

The Dominican primary school education system is in crises. It faces increasing enrollment demands while, at the same time, it is receiving inadequate financial resources to run the system. In 1980-81, primary enrollment totaled 1,080,000 students with 17,000 teachers distributed among 4,600 schools. Almost 70% of the children at the primary level are over-age in relation to the class in which they are enrolled. There is a high dropout rate: only 47% of the children enrolled in primary schools complete the first grade and only 19% complete primary school in six years. Facilities are lacking; between 250,000 - 410,000 children of primary school age are not enrolled due to the lack of space. In terms of budgetary support, primary school education accounted for 41% of the 1982 SEEBAC budget, but this is still considered inadequate and the resources that are available are still unevenly distributed. Per pupil expenditure rates in rural schools is only 45% of per pupil expenditures in the urban schools. Also, many teachers are not adequately trained especially at the rural areas.

In addition to these concerns, the administrative capacity of the primary education system is deficient. There is a continuing problem with centralization of administration and decision making, and minimal administrative participation at the regional level. Supervision is inadequate and qualified personnel are scarce at all levels, particularly in the classroom. Also the reformed curriculum has not been fully implemented nationwide and grades 5 and 6 have not been completed. The rural/urban disparities continue despite the reform efforts. Finally and most importantly, data and research required to make decisions and develop plans are not available.

D. USAID Education Strategy and AID Policy

The Education Sector Assessment Update, undertaken over the past year, concludes that primary education should receive top priority in educational planning and financing. To meet the needs of the primary

level, the update notes that priority should be given to expanding coverage through construction of additional classroom space, as well as to providing supplies and materials. Another priority noted is the need to improve promotion rates by improving instruction and supervision. It also indicates that inputs are needed to correct deficiencies in the administrative capacity, the inadequate supervisory system, and the scarcity of qualified personnel. Data and research on primary education, upon which to make decisions and develop plans, needs to be made available.

The update, with its call for resolving the problems of primary education, especially in the rural areas, became a vehicle for a policy dialogue among the Secretariat of Education, AID and other donors. In its original planning document for the 1982-1984 period, SEEBAC placed number one priority on the issue of adult education. However, as a result of the update, SEEBAC has revised its priorities -- placing first priority on primary education! Another important reason for the revision of priorities to primary education are the tangible findings from the PIDE project. This initial USAID effort, initiated in 1979, was designed to assist the GODR implement the education reform. Its purpose was to provide at least four years of improved basic education to rural children in a target area of the country. Project activities included the development of an education statistics; research and planning system; provision of additional teachers and support personnel and the upgrading of teacher, administrator and technician skills; development of educational materials; and construction of education facilities and provision of equipment.

As a result of PIDE, over 1,400 classrooms were constructed. Teacher guides were developed based on the new curriculum, and teachers trained in their use. Education materials were purchased plus teachers were trained in utilizing local resources to prepare instructional materials. A decentralized school maintenance system has been designed and, a fledgling planning research and statistics office has been established. Educationally, in the PIDE target area, recent statistical data show higher promotion rates, increased access, (primary school age population attending school increased to 94%) and a reduction in dropout and repetition rates over those experienced prior to the initiation of PIDE. The results of PIDE demonstrated progress in expanding educational coverage and improving the quality of instruction and supervision. However, only one part of the country was affected and much remains to be done to improve the efficiency of education in the rest of the country. (Annex I contains more detailed information on PIDE I activities, accomplishments, and evaluation results.)

The GODR, USAID and the other major donor in the education sector - the Inter-American Development Bank - have developed a geographic focus strategy of updating and expanding the quality of rural

primary education through an increase in access to primary education through school construction and rehabilitation and a continuation of PIDE activities in new areas of the country.

The efforts of AID and the IDB are designed to be complementary and non duplicative. Each donor, under a SEEBAC agreement will focus its attention on a geographically contiguous region. The USAID will work in ninety núcleos to the north of the original PIDE area in the provinces of Sánchez Ramírez, Duarte, Salcedo, María Trinidad Sánchez and Samaná. (The area known as the Cibao Oriental.) The IDB efforts will cover a 10 province area in the western part of the country. SEEBAC will assume responsibility for funding or finding funding for the remainder of the country. (See attached Map.)

1. Geographic Expansion Rationale

The Cibao Oriental was selected as the USAID geographic focus not just because of its proximity to the original PIDE area but because of the current poor state of its educational system, which prompted the GODR to single it out for immediate attention. This area is a largely rural area with over 73% of the population residing in non-urban areas. The important factor, however, is that the rate of illiteracy in this area is relatively high - 30% in total; 35% in the rural areas. School facilities are in a deplorable condition; 33% of the schools need to be reconstructed compared to a national average of 20% and a large number of classrooms need to be constructed. Teachers in this region are largely untrained. Nationwide, approximately 45% of the teachers are not certified while in the Cibao Oriental fully 69% are not certified (83% in the rural areas). Also the education level of administrative personnel is very low for the positions held. For these reasons and more the new PIDE project with its construction, education materials, teacher and administrator training components can make a rapid and effective impact on the Cibao Oriental. Better access to quality primary education will dramatically improve the quality of life in this largely rural area with a high potential for future development. (See Social Soundness Analysis.)

2. Radio Education Rationale

Radio is an effective means to overcome the continuing problems of access, low teacher training, lack of materials and textbooks and low achievement levels of rural students. The overall AID strategy in primary education has included the utilization of radio as a medium for primary education. This strategy was successfully demonstrated in the Nicaragua and Thailand radio education programs.

Lack of facilities and qualified teachers has been a consistent problem in the Dominican Republic. As an alternative to the bricks and mortar solution, the GODR has been interested in radio

programming for educating the out-of-school population; both children and adults. Thus, when AID's Science and Technology Education Office was reviewing sites for a non-formal radio education project, SEEBAC requested that the southwestern region of the country be a project site because of its overwhelming lack of facilities and teachers.

A recent study of Caribbean and Central America students in mathematics achievement showed Dominican eighth graders to have the lowest scores. Because of the continuing deficiency in teaching mathematics in Dominican schools the Secretariat of Education wants to extend its radio education programs to teach mathematics in its regular primary schools. With AID's encouraging radio mathematics experience, under the proposed project, assistance will be provided to SEEBAC to develop and adapt the successful methodologies for radio education programs to the formal rural education system. (See Technical Analysis.)

The USAID education strategy is based on the expressed needs of the Dominican Republic. It draws its emphasis on primary education from the Sector Assessment and its mix of activities from project experience. The major long term goal of this strategy, as stated in the CDSS, is to develop an educated population which is functionally literate, equipped with the specialized skills necessary for the country to produce and to be competitive in foreign trade, and aware, involved and supportive of the democratic values which guide the country's development. The USAID/DR strategy aims at providing at least four years primary school education to all children by the year 1990. To achieve this goal, the USAID believes that the level of effort contained in this project is essential.

III. PROJECT DESCRIPTION

A. Goal and Purpose

The USAID proposes to assist the GODR in improving the efficiency of and access to rural primary education through a project designed to expand, replicate and update the Integrated Project for Educational Development (PIDE I). The new project proposes to extend the geographic area of focus to the Cibao Oriental and to deepen support in the following activities: teacher and administrator training; provision of education materials; information systems; and construction and rehabilitation of classroom facilities. A new pilot activity in radio mathematics will be added during the life of the project.

Since this project was developed as an outgrowth of the previous AID project in rural education, the goal, as defined under the original PIDE effort, continues to be valid. Therefore, the goal is to improve the quality and quantity of educational services available to rural Dominicans. The purpose, which is also similar, is to continue and strengthen the education reform initiatives and to expand the geographic

focus by providing primary education services to 90% of the rural children in the provinces of Salcedo, Duarte, María Trinidad Sánchez, Samaná and Sánchez Ramírez, while at the same time continuing and strengthening those services in the original target area. (See Annex F for measures of goal and purpose achievement.)

The project will be implemented over a five year timeframe at a total AID funding level of \$6 million in loan and \$2 million in grant. The implementing agency, the Secretariat of State for Education, Fine Arts and Worship (SEEBAC), also remains the same, as well as, the administrative arrangements set up to implement the original PIDE effort. The following section details the project components.

B. The Components

1. School Construction

School construction in the project will essentially be a replication of the successful school construction activities begun under PIDE I. However, a greater effort will be made under this project to increase the involvement of rural communities in the process in order to strengthen interest in and support of rural education and thereby improve enrollment, reduce dropout and repetition rates, and lower costs associated with developing the facilities and their maintenance.

a. Need for Facilities

One of the factors which indicates the incidence of quality education in a system is the number of facilities available to the school age population. On this basis, the eastern Cibao region provides low quality education services. In order to achieve the project's purpose of providing basic quality, education services to 90% of the rural school age population of the Cibao Oriental region, the number of school facilities must be increased.

In 1978, SEEBAC, as part of the Education Reform, determined that, in order to maximize the human resource base and dramatically increase access, the núcleo system would be used as a basis for school construction activities. This system places a central school, including grades 1 to 8, in the more populated areas. At distances determined by population and the length of time it would take a child to walk to school, satellite schools would then offer grades 1 to 4. Upon graduation from these schools, a student would ostensibly have the maturity to walk farther to schools offering higher grades.

A team of representatives from various SEEBAC technical offices conducted a survey in January of 1984 to verify and update an educational mapping exercise undertaken in 1982. This recent

survey found that 64% of the school age children in the eastern Cibao are covered by school facilities. To achieve 90% coverage, the objective of the project, 803 additional classrooms and 343 ancillary facilities (i.e., workshops, offices, pantries, libraries, etc.) will be constructed in 390 communities of the project area. The number of facilities required was arrived at based on the following criteria:

- i) 30% or more deterioration of the existing facility; or
- ii) the existing facility was rented; and
- iii) a minimum, projected population growth in the area.

A detailed discussion of the construction activity, including the planning, preparation and construction phases, can be found in the Technical Analysis Section of the PP and in Annex H.

b. School Maintenance

Until recently, SEEBAC administered a highly centralized system of school maintenance. It seldom functioned properly due to a lack of adherence to reporting requirements; poor communications; lack of transportation; and limited staff, thus restricting efforts to keep schools repaired and maintained. As part of PIDE I, the design for a decentralized maintenance system has been completed; and the system is in the early stages of implementation.

A community liaison technician has been appointed in SEEBAC to implement its policy of developing greater community involvement in the maintenance of schools. Even though it is envisioned that school maintenance may one day be completely handled by each of the communities, SEEBAC will continue to work with the communities on school maintenance and provide budgetary resources for this purpose. The following are PIDE I outputs which will continue to be implemented and expanded in the Cibao Oriental:

- i. A maintenance manual will be distributed by SEEBAC. The easy-to-follow manual is tailored especially towards the núcleo director, teachers and the community.
- ii. Maintenance checksheets for school sites will be provided by SEEBAC.

- iii. District and núcleo directors will be oriented on the use of the checksheets and on how to make an assessment of maintenance needs at their schools.
- iv. Training will be provided to parent-teacher groups.

c. Role of Rural Communities

It is necessary that the rural community play a large role in support of rural education. As discussed in the Social Soundness Analysis, it is important that the community be involved in the rural school system if it is to be successful. The hypothesis is that a community will develop a proprietary sense toward the local school if it has assisted in its planning, design, and/or construction. This in turn would help assure the school's maintenance, since the community would look at it as its own, with pride and a sense of accomplishment.

Specifically, the project will endeavor to involve parent groups in planning, design and/or construction of the school facilities. These parent groups will be receiving in-depth orientation from SEEBAC's Office of Community Support. A description of the specific training which parent-teacher groups will receive can be found under the Teacher/Administrator Training Component. These parent groups, "Asociaciones de Padres y Amigos," will be or have been involved in:

- site selection;
- finalization of school facilities (e.g., painting, landscaping, fencing, etc):
- decision on use of facilities after hours;
- school maintenance;, and
- school rehabilitation.

d. Planned Outputs

- 1. 803 classrooms built and equipped according to SEEBAC specifications.
- 2. 343 ancillary spaces built, i.e., workshops, pantries, offices, libraries, etc.

2. Teacher and Administrator Training Component

This component is based directly on the successful PIDE I training activities but its scope has been enlarged. It will offer training to Cibao Oriental and PIDE I area primary school teachers; and on a nationwide scale to primary school administrators, such as regional, district and núcleo directors. Teacher/administrator training will be carried out through in-service and formal training activities. In total, over 5,400 teachers (1,900 in the Cibao and 3,500 in PIDE I) and 1,000 administrators/directors will receive training. A full description of teacher training activities is contained in the Five Year Teacher/Administrator Training Plan which can be found in USAID official files.

a. In-service Training

i. Reform Curriculum

The Dominican reform curriculum includes four academic subjects plus practical arts and physical education. Each subject area has specific objectives, activities and suggested teaching methodologies to which the training courses will adhere.

Under the PIDE I Project, teachers received in-service training in the proper use of the new curriculum. Teacher guides were developed for use in the classroom. The training provided the teachers in the PIDE I area with needed "hands-on" familiarization with the new curriculum and, more importantly, offered classroom applications of the teaching methodologies. Based on three years experience in the PIDE area, long-term feedback, and on-going modifications of the SEEBAC curriculum, the same in-service training program will be offered to the teachers in the Cibao Oriental. Where appropriate, the teacher guides will be updated.

In-service training utilizes the "teacher multiplier" training concept. Under this system, the PIDE staff trains a small cadre of teachers composed of on the average one teacher per grade per núcleo. This cadre will, in turn, be responsible for training and follow-up activities with fellow núcleo teachers. The following tables represent the magnitude of the in-service primary school training activity.

In addition to training in the new curriculum, other courses will be offered in multigrade teaching, local production of teaching materials, program management, practical arts, physical education, and music appreciation.

TABLE ICibao In-Service Primary School Teacher Training

| <u>Grade</u> | <u>No of teacher Multipliers</u> | <u>No of Teachers To be Taught</u> |
|--------------|--------------------------------------|--|
| 1-4 | 90 | 1,128 |
| 5-6 | 16 | 480 |
| 7-8 | 16 | <u>330</u> |
| | 22 | 1,938 |

TABLE IIUpdated PIDE I In-Service Primary School Teacher Training

| <u>Grade</u> | <u>No. of Teacher Multipliers</u> | <u>No. of Teachers To be Taught</u> |
|--------------|---------------------------------------|---|
| -4 | 123 | 2,644 |
| 5-6 | 16 | 570 |
| 7-8 | <u>16</u> | <u>350</u> |
| | 155 | 3,564 |

ii. Normal School Equivalency

Within the primary school system, an appointment to a teaching position requires a normal school degree. Included in the curriculum are courses and field experience in primary school teaching methods. SEEBAC has identified over 750 teachers who are high school graduates but who do not have a Normal School degree. These teachers will, over a one-year period, on Saturdays, receive in-service training needed to award them a Normal school equivalency degree. The normal school faculty members will offer the course at four off-campus sites - Cotui, Samaná, San Francisco de Macorís and Nagua.

iii. In-Service Training of Support Staff

Each núcleo (central) school has a secretary who assists the director in general administrative work. Basic typing and language skills are prerequisites; however, many of the support staff, especially in rural areas, are not even minimally qualified. Under this project, 45 new secretaries are to be hired for the Cibao Oriental area. In order to assure quality performance and to better utilize their services, the new secretaries will receive training in: school library maintenance, use and maintenance of office equipment, filing and office procedures. This training is similar to that which was offered in the PIDE I area with the result that support staff had a better understanding of the overall role of the Director's office in the support of the núcleo and its satellite schools.

iv. Parent-Teacher Groups

There are formal and non-formal parent and school support groups throughout rural Dominican Republic. In some of the more difficult to access schools, parent groups will be organized to assist in the actual planning and maintenance of schools. There are varying degrees of parent interest, efficiency and understanding of the nature of their roles vis-a-vis school effectiveness, teacher effectiveness and school maintenance. Training will be offered to two parent representatives in each of the over 90 núcleos in the PIDE II area. The training will be in leadership, community organization and the role of the parent groups in the school program. This training will be organized and offered by the Office of Community Support within SEEBAC. Using the multiplier concept, those trained will be responsible for training fellow schoolboard members. The expected output will be functioning parent/teacher support groups.

b. Formal Training

1. High School Equivalency

Within the 8 provinces of the combined PIDE area, over 550 primary school teachers do not have a high school degree. In order to bring these teachers to a minimum academic standard and

prepare them for the normal school in-service training program, a high school equivalency degree will be made available through Centro APEC de Educación a Distancia (CENAPEC). CENAPEC is a privately funded, non-profit organization which is part of the APEC consortium of private sector education activities. It is the only institution offering high school equivalency diplomas through correspondence in the Dominican Republic. A contract will be negotiated and entered into for CENAPEC services by SEEBAC.

11. Supervisory/Administrative Training

Nationwide, there are over 1,000 regional, district and núcleo directors, plus technicians who supervise and administer the rural primary school system. Promotion to these positions is from the teaching ranks and based on a merit system. Although there are varying levels of ability, the Sector Assessment Update found a very low level of administrative competency in the rural schools. Many of these administrators are not properly trained nor do they have the appropriate academic credentials for the position. Academic course work for individuals interested in obtaining the management skills needed for these positions is offered by Dominican universities. In order to take advantage of existing professional experience, avoid duplication of efforts, and to save on heavy start-up costs, local university contracts or contracts will be negotiated by SEEBAC for senior management training. The training, offered on Saturdays, will focus on enhancing the administrative, management and supervisory skills needed for field personnel. A certificate in management will be offered.

c. Education Materials

Dominican rural classrooms are, generally speaking, barren of teaching aids and instructional materials such as posters and maps. Library and practical arts rooms are non-existent or poorly stocked. PIDE sponsored in-service teacher training in the production of local, low cost educational materials will respond to some of the classroom needs. At the same time, however, the project will purchase for each núcleo school, basic instructional materials such as world maps, blackboards, practical arts tools, library books and basic classroom equipment.

d. Planned Outputs

- 1) 5,400 rural school teachers trained in proper use of reformed curriculum.
- 2) 1,000 administrators trained in management/supervisory techniques.
- 3) 750 normal school degrees awarded to rural teachers.

- 4) High school diplomas awarded to 550 rural teachers.
- 5) 180 parent multipliers trained.
- 6) 45 secretaries trained.
- 7) 90 núcleo schools receive instructional materials, practical art tools, and library books.

3. Information Systems

The Technical Planning Office within the Secretariat of Education is responsible for planning, statistical information and research. Unfortunately, this office does not adequately carry out its assigned tasks. This is due, as documented by the PIDE evaluation, to weaknesses within the internal administrative structure and the human resource base. The original PIDE project assumed structural reforms were to be made and focussed attention on inputs to improve the human resource base. The planned structural reforms, however, did not occur as originally scheduled. Nonetheless, PIDE inputs did elicit a review and evaluation of SEEBAC planning documents and in-service staff training. Also, steps were taken to improve data collection procedures. However, problems with data reliability, as well as difficulties in analysis and projections for planning, have severely limited the office's ability to fulfill its function. Improvement in this area is recognized as critical to enable SEEBAC to make the case for additional resources. However, without a valid data base and trained personnel, production of these documents is almost impossible.

Based on the recent UNESCO report on SEEBAC's administrative structure, an administrative reorganization was recommended that redefined department and division responsibilities; established job qualifications and identified specific information needs. SEEBAC has implemented this structural reform in the planning offices. Also, the Secretariat, recently, made senior personnel appointments to replace key planning staff who had resigned. Although the departure of technical personnel will continue to be a problem, the consensus is that this has peaked, and that it will not present any major implementation difficulty under the project.

This component will make available technical assistance, staff training and commodities to assist the Technical Planning Office in fulfilling its functions. Commodities to be purchased include computer software for an IBM 34 system, desk calculators, office equipment, micro computers and printers.

a. Technical Assistance and Training

Technical assistance and training for this component will be provided through a SEEBAC contract with a local university. The contractor will develop and implement a time-phased technical office improvement plan. Initial efforts will begin with the Information Systems Division in computer use, statistics, and research. The contractor will use special research and data collection exercises as supervised training activities. These activities will constitute the core of the training workshops and will also provide technical office staff with practical applications of the theory learned by those enrolled in study programs. The training emphasis will be on the practical application of specific functions for those with lesser responsibility and on theory as well as application for department directors and others selected for the study program. Since the data generating projects would be conducted on a regular basis, subsequent implementation of those projects could gradually be shifted to SEEBAC with the contractor monitoring the procedures. Also under this component, three participants will be selected for off-shore master's level training in education statistics and planning.

The monitoring of PIDE project activities and impact, described in Section V-B (Implementation Plan - Monitoring Plan) will be carried out initially as a separate activity during the first two years, while the Technical Planning Office's capabilities are being strengthened. As nearly all of the information required for project monitoring will also be of ongoing interest to SEEBAC in its planning and management of primary education, these data collection functions will be gradually passed over to the Technical Planning Office's staff. It is expected that this transfer will be made by the third year of project implementation.

b. Planned Outputs

1. A functioning and properly equipped Technical Office of Planning within SEEBAC collecting and analyzing educational data (including PIDE monitoring data), preparing planning documents and conducting research.
2. 3 Participants receive Masters degrees.
3. Integrated yearly reports.

4. Radio Mathematics

The object of the radio-math component is to provide effective, affordable instruction and to improve and standardize the quality of mathematics education in the PIDE zones. The system will consist of an instructional program and a Department of Educational Radio

within SEEBAC to manage the program. It is anticipated that, as a result of this project, the use of radio math will be expanded to include all of the schools in the Dominican Republic.

a. Department of Educational Radio

A Department of Educational Radio (DER) will be established within the SEEBAC Directorate for Educational Technology. The DER will develop and administer the radio education programs for both the formal schools and for the community education centers. The RADECO Project and its resources (including equipment, material, and trained personnel) will be incorporated into a Department of Educational Radio.

The DER Coordinator for Curriculum and Evaluation will manage units for developing radio education programs, including curriculum and printing materials, radio production, evaluation, and supervision. DER will coordinate the supervision of the radio mathematics program with the SEEBAC Regional and District offices. In addition to its responsibility for the implementation of the radio mathematics program it will develop the fourth grade and revise the second grade programs. To support DER, the project will provide long term technical assistance in the form of a specialist in administration of radio mathematics programs (two years), and a specialist in radio education programming to support the integration of RADECO into DER and to conclude the development of radio education programs (one year). AID will also provide two person/years of technical assistance to support curriculum development, evaluation and radio production. Short-term consultants will be provided in mathematics and teacher guide development. Staff of DER will receive a one-week orientation to radio mathematics methodologies at the Academy of Educational Development in California.

b. Radio Mathematics Plan

In order to obtain accurate estimates of coverage requirements, a study will be conducted during the first three months of the Project to determine the number of classes, grade levels, multigrade classes, double-session schools, and schools which adhere to schedules which reflect the coffee harvest season. In 1985, DER will begin radio mathematics broadcasts to 100 first grade classes. From 1986 through 1989, DER will add grades 2, 3 and 4 and will also expand the number of classes to cover all the schools in the combined PIDE area.

In the first half of 1985, the Directorate for Educational Technology will work with the long-term advisor in radio mathematics to review GODR resources for providing transmission time for educational radio programs. It is probable that broadcast time will be assigned on the Armed Forces Radio, both because it is government operated and its national coverage.

By September 1985, tapes for the transmission of grades 1-3 will be available from the RADECO project and can be copied directly with minor editing for use in the radio mathematics program. The DER will revise the second grade RADECO programs for the 1985-86 school year. In the same year, DER will also develop the fourth grade of the community radio education programs and therefore the fourth grade materials for the formal mathematics program.

Regarding student materials, only in the first-grade are non-reusable worksheets used. In the other grades, there are no printed supplementary materials for individual students and no textbooks are required. In grades 2-4, however, graph paper notebooks are used. These are to be purchased by the student.

The RADECO teacher guides will be revised for the formal school setting. Work on the revision of these guides will begin as early as April 1985 to ensure that they are available for the first broadcast in September 1985. A consultant in radio mathematics will work for one month each year in 1985, 1986, 1987, and 1988 to train SEEBAC technicians in the use of the teacher guides for grades 1, 2, 3 and 4. Also, in each guide, suggestions for teachers of multigrade classes will be made so they can assist students during the radio math programs while other students study different subjects.

A one day teacher training course will be designed and conducted during the summer of 1985. Since the radio mathematics materials were designed for unqualified, untrained teachers, a short, intensive course will be offered with follow-up observations and, as required, in-service training in evaluation. This training will be carried out by DER technicians.

Highly positive results from the RADECO evaluations eliminates the need for an elaborate evaluation of the mathematics program in the project. However, a summative, pretest-post test evaluation of about 30 control schools and 30 project schools will be done for grades 1 and 2 during the 1986-87 school year.

c. Planned Outputs

At the end of the project the following outputs will have been achieved:

- 1) An institutionalized Department of Educational Radio, with a distribution system for programs and materials.
- 2) A fully functioning instructional radio broadcast program on numerical skills; an instructional radio program for community

education centers on reading-writing, mathematics, and aspects of social studies and science.

- 3) Instructional materials, teachers guides. radio monitor guides.
- 4) Teachers trained in the use of the radio mathematics curriculum and guides.

A detailed technical and implementation plan was developed for this component and is annexed to the project paper. It is available in the USAID/DR Official Files.

C. FINANCIAL PLAN

1. Summary of Inputs

The total cost of this five year project is estimated to be \$24.28 million. AID will provide \$6 million in loan funding, and \$2 million in grant funding. The GODR counterpart will be \$16.28 million.

a. AID Funds

AID resources will total \$6 million in loan funds and \$2 million in grant funds. A total of \$970,000 will be used to cover inflation and contingencies. AID resources will be used to finance the following:

1. Technical Assistance (\$1,350,000 - Grant)

The information system component, will include a contract with a local university for long-term and intermitent technical services to be offered over four years at a total cost of \$200,000. The contract will include the following services: A long-term information systems/educational planner advisor for 48 months at a cost of \$96,000. This individual will coordinate all activities relating to the development of a functioning and interactive information system within SEEBAC. 16 months of intermitent technical assistance in computer technology at a cost of \$32,000, to systematize Technical Office data collection, expand software applications, and develop and implement an in-service computer training program for the staff. 24 months of intermitent technical assistance in statistics at a cost of \$48,000 will be provided to develop data collection instruments and provide in-service training in data collection and analysis to central SEEBAC and field staff. 12 months of intermitent technical assistance in research at a total cost of \$24,000 will be provided to develop SEEBAC's capacity to carry out research studies.

The teacher training component will include two long-term advisors: (1) a resident trainer for 24 months to improve the in-service teacher and administrator courses, and (2) a resident curriculum planner/evaluator for 24 months to develop and field test a comprehensive pre/post testing system to ascertain student subject knowledge. The cost of each advisor is \$175,000.

The radio mathematics component includes a long-term resident radio mathematics project specialist for 24 months at a cost of \$240,000 to plan and advise on the implementation of the radio mathematics component. A long-term resident specialist will be provided for 12 months at a cost of \$130,000 to develop and implement the teacher training and followup plan. A long-term resident radio curriculum and evaluation specialist will be provided for 12 months at a cost of \$70,000 to develop and implement the evaluation instruments. A long-term resident radio producer will be provided for 12 months at a cost of \$70,000 to produce the daily radio tapes. Short-term technical assistance includes: 8 months intermittent service (2 months a year) of a radio mathematics consultant over the life of project at a cost of \$65,000 for adaptation of first, third and fourth grade radio materials, and training of SEEBAC curriculum technicians; and 1 month service of a specialist in mathematics and 2 months service of a reading curriculum specialist at a cost of \$25,000 to review and revise radio curriculum.

The Project Administration component includes \$100,000 to procure local technical services for baseline and updated qualitative and quantitative cohort of education efficiency data. AID will provide \$100,000 to fund two evaluations during the life of the project. These two evaluations will be performed by outside consultants.

ii. Training - (\$400,000 - Grant; \$922,000 - Loan)

Grant funds will be used to finance the following: three participants for masters level training at the University of New Mexico (\$100,000); CENAPEC correspondence program for a high school equivalency degree (\$100,000); a local university contract for advanced supervisory/management training (\$200,000). Loan funds will be used for the following: in-service teacher/administrator training and the normal school equivalency degrees. AID will provide \$797,000 for training materials, logistical support and per diem. Under the radio mathematics component, AID will fund in-service training for teachers in the proper use of the curriculum (\$100,000); and a one-week orientation to DER staff in radio education methodologies (\$25,000).

iii. Commodities (\$1,358,000 - Loan).

Under the Information System component, \$100,000 will be used to purchase calculators, software, typewriters and a micro-computer. Under the teacher training component, \$258,000 will be used to purchase tools, maps, charts, globes, and library books for each núcleo school.

The Radio Mathematics component includes \$875,000 for the purchase of radios, batteries, student worksheets and guides, a vehicle, high speed typewriters, office and studio equipment.

The Project Administration component includes \$125,000 for the Revista Pedagógica and office equipment, i.e., typewriters, xerox machines, office supplies and the rental of the communications system for the regional construction office.

iv. Construction (\$3,000,000 - Loan)

To improve existing rural school facilities and increase student access, AID will provide \$3,000,000 in loan funds. The remaining costs will be financed with counterpart funds.

d. GODR Funds

Counterpart resources for the Rural Education Expansion Project will total RD\$16.280,000.

i. Salaries (RD\$6,900,000)

Salaries of 320 new teachers, 45 new secretaries, and 20 new SEEBAC technicians hired expressly for this project will be provided at a total cost of RD\$6,900,000.

ii. Construction (RD\$9,380,000)

The GODR will provide RD\$8 million for the construction of classrooms. Also, RD\$880,000 will be used for the purchase of classroom equipment (i.e., student desks and faculty furniture). The GODR will also provide RD\$500,000 for the school maintenance program.

SUMMARY COST ESTIMATE AND FINANCIAL PLAN
(000's)

| | G R A N T | | | L O A N | | | G O D R | TOTAL |
|------------------------------------|------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|
| | LC | FX | TOTAL | LC | FX | TOTAL | | |
| I. Construction | | | | | | | | |
| A. School Construction | - | - | - | 3,000 | - | 3,000 | 8,000 | 11,000 |
| B. Equipment | - | - | - | - | - | - | 880 | 880 |
| C. Maintenance | - | - | - | - | - | - | 500 | 500 |
| | <u>-</u> | <u>-</u> | <u>-</u> | <u>3,000</u> | <u>-</u> | <u>3,000</u> | <u>9,380</u> | <u>12,380</u> |
| II. Teacher Training | | | | | | | | |
| A. Technical Assistance | - | 350 | 350 | - | - | - | - | 350 |
| B. Training | 300 | - | 300 | 797 | - | 797 | - | 1,097 |
| C. Commodities | - | - | - | 100 | 158 | 258 | - | 258 |
| D. Salaries | - | - | - | - | - | - | 6,000 | 6,000 |
| | <u>300</u> | <u>350</u> | <u>650</u> | <u>897</u> | <u>158</u> | <u>1,055</u> | <u>6,000</u> | <u>7,705</u> |
| III. Information System | | | | | | | | |
| A. Technical Assistance | 100 | 100 | 200 | - | - | - | - | 200 |
| B. Training/Off Shore | - | 100 | 100 | - | - | - | - | 100 |
| C. Commodities | - | - | - | 50 | 50 | 100 | - | 100 |
| D. Salaries | - | - | - | - | - | - | 500 | 500 |
| | <u>100</u> | <u>200</u> | <u>300</u> | <u>50</u> | <u>50</u> | <u>100</u> | <u>500</u> | <u>900</u> |
| IV. Radio Mathematics | | | | | | | | |
| A. Technical Assistance | - | 600 | 600 | - | - | - | - | 600 |
| B. Training | - | - | - | 100 | 25 | 125 | - | 125 |
| C. Commodities | - | - | - | 375 | 500 | 875 | - | 875 |
| | <u>-</u> | <u>600</u> | <u>600</u> | <u>475</u> | <u>525</u> | <u>1,000</u> | <u>-</u> | <u>1,600</u> |
| V. Project Administration | | | | | | | | |
| A. Commodities/Public. | - | - | - | 75 | 50 | 125 | - | 125 |
| B. Salaries | - | - | - | - | - | - | 400 | 400 |
| C. Evaluation | 100 | - | 100 | - | - | - | - | 100 |
| D. Monitoring/Update | 100 | - | 100 | - | - | - | - | 100 |
| | <u>200</u> | <u>-</u> | <u>200</u> | <u>75</u> | <u>50</u> | <u>125</u> | <u>400</u> | <u>725</u> |
| VI. Contingencies/Inflation | | | | | | | | |
| | - | 250 | 250 | - | 720 | 720 | - | 970 |
| | <u>600</u> | <u>1,400</u> | <u>2,000</u> | <u>4,497</u> | <u>1,503</u> | <u>6,000</u> | <u>16,280</u> | <u>24,280</u> |

TABLE II
PROJECTION OF EXPENDITURES BY FY

| | Loan | Grant | GODR | Total |
|--------|-------|-------|--------|--------|
| FY1985 | 2,720 | 780 | 8,560 | 12,060 |
| 1986 | 1,530 | 690 | 2,560 | 4,780 |
| 1987 | 755 | 395 | 1,540 | 2,690 |
| 1988 | 548 | 15 | 1,760 | 2,303 |
| 1989 | 467 | 120 | 1,860 | 2,447 |
| | 6,000 | 2,000 | 16,280 | 24,280 |

| | FY 85 | | | | FY 86 | | | | FY 87 | | | | FY 88 | | | | FY 89 | | | |
|---|--------------|------------|--------------|---------------|--------------|------------|--------------|--------------|------------|------------|--------------|--------------|------------|-----------|--------------|--------------|------------|------------|--------------|--------------|
| | L | G | GODR | Total | L | G | GODR | Total | L | G | GODR | Total | L | G | GODR | Total | L | G | GODR | Total |
| I. Construction of Educ. Facilities & Provision of Equipment | | | | | | | | | | | | | | | | | | | | |
| A. School Constr. | 2,000 | - | 7,000 | 9,000 | 1,000 | - | 1,000 | 2,000 | - | - | - | - | - | - | - | - | - | - | - | - |
| B. Equipment | - | - | 300 | 300 | - | - | 300 | 300 | - | - | 280 | 280 | - | - | - | - | - | - | - | - |
| C. Maintenance | - | - | 80 | 80 | - | - | 80 | 80 | - | - | 80 | 80 | - | - | 80 | 80 | - | - | 180 | 180 |
| Sub-Total | 2,000 | - | 7,380 | 9,380 | 1,000 | - | 1,380 | 2,380 | - | - | 360 | 360 | - | - | 80 | 80 | - | - | 180 | 180 |
| II. Training Teachers, Administrators & Technicians | | | | | | | | | | | | | | | | | | | | |
| A. Technical Assistance | - | 150 | - | 150 | - | 150 | - | 150 | - | 50 | - | 50 | - | - | - | - | - | - | - | - |
| B. Training | 300 | 150 | - | 450 | 150 | 100 | - | 250 | 150 | 50 | - | 200 | 100 | - | - | 100 | 97 | - | - | 97 |
| C. Commodities | 75 | - | - | 75 | 100 | - | - | 100 | 50 | - | - | 50 | 33 | - | - | 33 | - | - | - | - |
| D. Salaries (320 teachers +45 secretaries) | - | - | 1,000 | 1,000 | - | - | 1,000 | 1,000 | - | - | 1,000 | 1,000 | - | - | 1,500 | 1,500 | - | - | 1,500 | 500 |
| Sub-Total | 375 | 300 | 1,000 | 1,675 | 250 | 250 | 1,000 | 1,500 | 200 | 100 | 1,000 | 1,300 | 133 | - | 1,500 | 1,633 | 97 | - | 1,500 | 1,597 |
| III. Information System | | | | | | | | | | | | | | | | | | | | |
| A. Technical Assistance | - | 75 | - | 75 | - | 75 | - | 75 | - | 50 | - | 50 | - | - | - | - | - | - | - | - |
| B. Training/Offshore | - | - | - | - | - | 100 | - | 100 | - | - | - | - | - | - | - | - | - | - | - | - |
| C. Commodities | 50 | - | - | 50 | 25 | - | - | 25 | 25 | - | - | 25 | - | - | - | - | - | - | - | - |
| D. Salaries | - | - | 100 | 100 | - | - | 100 | 100 | - | - | 100 | 100 | - | - | 100 | 100 | - | - | 100 | 100 |
| Sub-Total | 50 | 75 | 100 | 225 | 25 | 175 | 100 | 300 | 25 | 50 | 100 | 175 | - | - | 100 | 100 | - | - | 100 | 100 |
| IV. Radio Mathematics | | | | | | | | | | | | | | | | | | | | |
| A. Technical Assistance | - | 300 | - | 300 | - | 200 | - | 200 | - | 100 | - | 100 | - | - | - | - | - | - | - | - |
| B. Training | 45 | - | - | 45 | 30 | - | - | 30 | 30 | - | - | 30 | 20 | - | - | 20 | - | - | - | - |
| C. Commodities | 125 | - | - | 125 | 100 | - | - | 100 | 150 | - | - | 150 | 250 | - | - | 250 | 250 | - | - | 250 |
| Sub-Total | 170 | 300 | - | 470 | 130 | 200 | - | 330 | 180 | 100 | - | 280 | 270 | - | - | 270 | 250 | - | - | 250 |
| V. Project Administration | | | | | | | | | | | | | | | | | | | | |
| A. Commod./Publication | 25 | - | - | 25 | 25 | - | - | 25 | 50 | - | - | 50 | 25 | - | - | 25 | - | - | - | - |
| B. Salaries | - | - | 80 | 80 | - | - | 80 | 80 | - | - | 80 | 80 | - | - | 80 | 80 | - | - | 80 | 80 |
| C. Evaluation | - | - | - | 0 | - | - | - | 0 | - | 50 | - | 50 | - | - | - | - | - | 50 | - | 50 |
| D. Update/Monitoring | - | 40 | - | 40 | - | 10 | - | 10 | - | 10 | - | 10 | - | 10 | - | 10 | - | 30 | - | 30 |
| E. Contingencies/Inflat. | 100 | 65 | - | 165 | 100 | 55 | - | 155 | 300 | 85 | - | 385 | 100 | 5 | - | 105 | 120 | 40 | - | 160 |
| Sub-Total | 125 | 105 | 80 | 310 | 125 | 65 | 80 | 270 | 350 | 145 | - | 80 | 575 | 125 | 15 | 80 | 220 | 120 | 80 | 320 |
| Total | 2,720 | 780 | 8,560 | 12,060 | 1,530 | 690 | 2,560 | 4,780 | 755 | 395 | 1,540 | 2,690 | 528 | 15 | 1,760 | 2,303 | 467 | 120 | 1,860 | 2,447 |

2. Methods of Implementation and Financing

The methods of implementing and financing the project are illustrated in Table III. The methods of financing shown in the table are preferred methods of financing under the Administrator's Payment Verification Policy Statements and represent no deviation from the USAID general assessment of financing policy and procedures. Therefore, further justification of these methods is not required.

TABLE III
METHODS OF IMPLEMENTATION AND FINANCING

| <u>Method of Implementation</u> | <u>Method of Financing</u> | <u>Approximate Amount (US\$ 000)</u> |
|---|-------------------------------------|--------------------------------------|
| TA-Direct Contract (Profit Making Contractor) | Direct Pay | 1,050 |
| - Host Country Contract (Non-Profit Contractor) | Direct L/Com | 300 |
| COM-AID Procurement - PSA | Direct L/Com | 758 |
| - Host Country Contract- Contract for Commodities | Direct Reimbursemen of Direct L/Com | 600 |
| Construction - FAR | FAR | 3,000 |
| TRNG - Direct Placement (S&T/IT) | Direct Pay | 125 |
| - Host Country Contract- Non-Profit Contractor | Direct L/Com | 300 |
| - Host Country Provided | Direct Reimbursement | 897 |
| Inflation/Contingency | | <u>970</u> |
| TOTAL | | <u><u>8,000</u></u> |

In the \$17.9 million PIDE project to be completed December 1984, SEEBAC demonstrated a strong capability to contract for locally-procured technical services and commodities, to contract for construction, to implement in-country training, and to administer its operating costs. In view of this, most non-foreign currency costs of the project will be implemented through host country contracting. As

discussed in USAID's general assessment of financing policy and procedures, the USAID project officer monitors host country contracting through the negotiation stage and contracts are reviewed by USAID prior to any commitment of AID funds to ensure adherence to USG and AID contract and procurement regulations and policies

In regard to payment verification, disbursements against host country contracts for technical services, commodity procurement, and training will be effected through Direct Letters of Commitment. In these cases, PIDE will examine and approve all invoices prior to USAID review and disbursement. For those inputs financed through direct reimbursement, USAID will review invoices and other supporting documentation either prior to disbursement or through subsequent financial reviews conducted by the Financial Review Section of the USAID Controller's Office. A modified FAR will be used to finance construction.

IV. PROJECT ANALYSES

A. Technical Analysis

The project design is based largely on a replication and strengthening of the original activities carried out under its predecessor project, PIDE I, with the addition of the pilot radio mathematics program. The design, then, is based on identified needs as outlined in the Sector Assessment and Update; SEEBAC's priorities as spelled out in the Secretariat's planning statements; and SEEBAC's commitment to institutionalize the activities and assume recurrent costs.

ON-GOING PIDE ACTIVITIES

The PIDE activities in teacher and administrator training and in the provision of education materials and information systems are basically a continuation of on-going PIDE activities. These have been extensively evaluated and have been deemed appropriate technologies. The evaluation states that, in general, capacity building at the district and núcleo levels was accomplished. A start has been made in decentralizing effective administration and supervision to the local level. Teachers have been trained in instructional methodology, preparation of instructional materials, human relations and other teaching skills. These accomplishments represent a major advance over conditions prior to PIDE and demonstrate the technical feasibility of the technologies selected to execute the project design. (See Annex I for details on PIDE project design and evaluation results.)

2. Engineering Analysis

The engineering analysis draws heavily upon the largely successful experience gained under the PIDE I project. The methods used to determine the actual classroom space demand, implement the planning and design, carry-out the construction phases, and perform maintenance are based on procedures utilized in the preceding PIDE I project. Some modifications have been incorporated to adjust to changes in classroom size and GODR design regulations to account for experience with previous construction designs and materials, to deal with more isolated construction sites, and to incorporate community involvement in the building maintenance activity. More emphasis will be placed in this follow-on project on community involvement in order to, inter alia, conserve resources.

a. Classroom Demand

To determine the classroom needs in the proposed region, a survey was conducted with each núcleo director in the target area. This determined the number and type of facilities needed, the number of teachers required, and the necessary furniture to fully equip

the existing and proposed facilities. Subsequently, a team of technicians from the SEEBAC Planning Department visited each of the proposed communities to determine availability of sites for new construction, the status of existing school facilities, and availability of adequate space if additions were required.

Deficiencies in the existing school facilities were identified by SEEBAC based on a formula which accounts for students per classroom, double daily school sessions, anticipated increases in enrollments, time necessary for a student to complete the grades designated as appropriate for the various locations. SEEBAC also took account of the geographic dispersion of students in the most remote areas. On the basis of its survey and analysis, it was determined, on a preliminary basis, that 803 new classrooms and 343 ancillary spaces of different types were needed in 390 locations.

b. Planning and Design of Classroom Construction

Planning and preparation will include four tasks: (1) detailed field investigations; (2) the up-dating of existing plans, specifications and cost estimates; (3) the preparation of bid documents; and, (4) the legalization of sites. Experience under the previous project indicates that this planning is essential to smooth implementation of the construction phase of the project.

During intensive review of the project, school facility preliminary designs and estimates were prepared by experienced architects/engineers contracted by SEEBAC for that purpose. Those plans follow, with slight modifications, the plans used by SEEBAC in the initial PIDE program, introducing improvements gained from that previous experience and modifications to comply with GODR earthquake design regulations.

c. Construction of Facilities

(1) General. Construction is expected to be completed within one year from issuance of IFBs based on prior PIDE I experience and the assumption that sufficient counterpart technical personnel will be provided. Experience under PIDE I has also indicated that the sorteo, or lottery, method of contracting is workable and provides an effective method to implement the construction element. Under this system, prequalified contractors are given the opportunity to examine the bid documents. On a set date, the sorteo (or lottery) is conducted by a SEEBAC committee to select the contractor.

Contractors will construct schools according to groups classified geographically and with respect to difficulty of access. Engineers from SEEBAC will closely supervise all construction through a decentralized plan of operations, maintaining regional field offices close to the construction area. Some planning and construction activity under the Project is expected to take place concurrently as construction moves from area to area.

(2) Final Planning and Preparation Phase. The PIDE Construction Division will conduct the final field investigations. They will work closely with the District Directors whose responsibility it will be to familiarize the engineers with the sites identified under the previous SEEBAC study of classroom needs. The investigations and final site selection will be based on predetermined selection criteria which include adequacy of soil foundation; type of terrain (i.e., not subject to flooding); and availability of sufficient space for the facility plus play areas and gardens.

After all the field data have been collected, the next task will be to classify the construction, placing emphasis on potential implementation problems discovered during the site investigation. The sites selected will thus be grouped by degree of difficulty. The construction costs and level of effort will be determined by group which in turn will affect when the actual construction will take place. It is estimated that there will be three different groups for classifying all the construction. The first group will be composed of the easiest projects, i.e., the ones without problems of land title, access roads, land leveling, soil foundation problems, etc. Groups two and three will include those schools which present engineering difficulties and/or access or titling difficulties. To the extent possible, construction activities will also be grouped according to geographic zone. After the initial group has been identified, a technical team composed of legal advisors, surveyors and architects will work with the engineers to prepare the site and location plans as well as legal documents.

When classification has been accomplished, the succeeding steps of the planning phase will then be carried out, i.e., model contracts prepared, plans and specifications revised to account for any modification in PIDE space requirements and newly enacted GODR regulations for earthquake resistance designs, cost estimates finalized and construction firms, supervisory engineers and architects prequalified.

Prequalification documents are prepared for field supervisors and prospective contractors under the direction of the PIDE construction coordinator. Once the documents are final, PIDE will advertise locally to request curriculum vitae for contractors and supervisors. A bidding commission will be established and be responsible

for the examination of all documents and make the final prequalification decisions. AID maintains approval rights over prequalification documents and final selection of contractors and supervisors.

(3) Construction Phase. Once the preliminary planning work is completed and the construction supervisors are on-board, the construction phase starts. By this time all plans, specifications, cost estimates and other contract documents for the first group will have been completed and approved by AID. Prequalified contractors will be given the opportunity to examine the bidding documents to select the groups of construction activities in which they want to participate as contractors. The sorteo, held on a predetermined date, is conducted by a SEEBAC committee made up of a cross section of educators and technicians plus a legal representative. An AID representative will be present at the sorteo.

The PIDE Engineering Division will be moved during construction to a town conveniently situated near the construction sites. The PIDE construction supervisors and other staff, as required, will live in that town during construction activities. The office can be moved as appropriate to changing work locations but will maintain radio communication with the central PIDE staff.

The field office will.

1. Supervise all school construction.
2. Make decisions related to all technical details.
3. Prepare all work measurements and issue all change orders.
4. Coordinate all the activities related to land titling and surveying of sites not done in preliminary stage.
5. Supervise all work done with community assistance.
6. Ensure the orderly and timely advance of the construction projects.

The main PIDE office in Santo Domingo will supply accounting support and when necessary will transfer specialized personnel to the field office to assist in the process of making progress reports and payments.

The construction of any group of projects is estimated to take from three to four months. After processing and releasing the first group of projects, the field office will start

immediately with the preparation of plans, specifications and cost estimates of the second group. Concurrent to the preparation of documents for the next group, the field office will execute, or direct the execution of, whatever additional work is necessary which is not included as part of the contractor's obligation such as site leveling and compaction or improvement of access roads. Efforts will be made to coordinate PIDE activities with the AID Rural Roads Project (517-0177) particularly whenever there are access problems. (See Annex H for details on construction activities.)

d. Maintenance of Facilities

Maintenance of the school facilities will be carried out as a counterpart activity under combined efforts of SEEBAC and the communities. The maintenance program will be as established under PIDE I. The PIDE manual entitled, "Manual para Mantenimiento y Reparación de Escuelas," describes in detail the operation of the maintenance program. In addition to the obvious need for maintenance of the physical facility, this contribution provides an essential means whereby the community can obtain shared participation in the development effort compatible with their skills and limited opportunities to contribute during the relatively fast paced skill-oriented construction activity.

3. Radio Mathematics Education

Traditional mathematics education in the Dominican Republic has resulted in low achievement scores relative to other countries and scores which vary widely by type of school. There are several causes of this low achievement, including, inter alia, poor teacher preparation and inadequate school materials. While one prescription for improving mathematics achievement is to improve school resources, another is to introduce new instructional technology, in this case radio education.

Since there is no current use of radio in traditional, formal Dominican education, evidence on the effectiveness of radio for teaching mathematics must come from other country sources. These sources consistently demonstrate that radio education results in higher mathematics achievement even when teacher quality is higher in non-radio schools than in radio schools.

Supporting evidence for the effectiveness of radio in teaching mathematics comes from three different experiments conducted in Nicaragua, Thailand, and Barahona in the Dominican Republic. The principal measure of effectiveness used in all three experiments is performance on mathematics achievement tests. Nicaragua provides the most comprehensive evaluation of radio education to date. In Nicaragua radio was used for grades 1-4 within the formal classroom much as is

proposed for the Dominican Republic. Given the similarities in culture, curriculum, and use of radio, the Nicaraguan results provide the best insight into the likely impact of the program in the Dominican Republic.

The Nicaragua experiment yielded the following important findings:

- experimental groups using radio did significantly better than control groups both in terms of amount of learning and average level of post-test mathematics scores;
- urban-rural learning differences were smaller among schools in the experimental group than among schools in the control groups;
- the higher learning demonstrated by students in the experimental group was retained over the summer break as pre-test mathematics scores for students returning to school were higher among students having had prior radio experience.

The Nicaraguan results are corroborated by the results from Thailand which again demonstrate higher mathematics achievement test scores among experimental than control groups. Thailand also confirms that radio education resulted in greater learning improvements in rural versus major urban areas.

Another experiment involving radio education is currently taking place in Barahona in the Dominican Republic. The Community Radio Education Project (RADECO) uses radio for language and mathematics instruction in a non-formal setting. Post-test results for the first year of that experiment demonstrates significantly higher average achievement scores (mathematics plus language) for the experimental group than the control group of traditional, formal education in spite of the superior qualifications of instructional personnel in the formal setting.

Taken together, these experimental results provide strong evidence that radio-education would increase mathematics achievement among children in grades 1-4 in the traditional, formal school setting in the Dominican Republic. There are, however, some factors in the Dominican setting which are likely to affect the magnitude of the increase in mathematics learning that would result from the introduction of radio education. These factors are:

- Radio programs developed for Nicaragua by RADECO were adapted to the traditional Nicaraguan curriculum via an elaborate feedback procedure. To the extent the Nicaraguan mathematics curricula differ from the

traditional Dominican curricula and since radio does not replace the traditional classroom instruction, learning gains may be lower in the Dominican Republic than in Nicaragua.

Preliminary results from the RADECO experiment in the Dominican Republic demonstrate higher post-test achievement scores among the experimental group in spite of their lower quality instructional personnel. Given the higher quality instructional personnel in the schools where the new project will be implemented, higher mathematics achievement gains and higher post test scores than found among the experimental group in RADECO may be forthcoming.

Finally, one should note that while the evidence that radio education can increase mathematics achievement is consistent and positive, the same cannot be said for other measures of effectiveness. The Nicaragua study concluded that radio education had very little, if any, impact on dropout, attendance, and failure rates. There is some evidence that this negligible impact is a result of teachers responding to improved achievement scores by setting higher standards for passing. In the absence of scores on standardized achievement tests, many developing countries use dropout, attendance, and enrollment rates as measures of effectiveness. If teachers respond to higher achievement in the Dominican Republic as in Nicaragua, one should not expect changes in these commonly used measures of effectiveness in the Dominican Republic.

4. Conclusion

The USAID supported PIDE activities are technically appropriate and well designed. As the human resource element of SEEBAC is more able to fulfill its responsibilities, the institution will become better able to respond qualitatively, appropriately and on a timely basis to identified needs. The GODR must continue to set short and long-range goals for education reform while at the same time reestablish funding priorities to respond to development related needs. There are no overnight solutions available to the education systems problems and continued efforts at improvement and time are very necessary elements for a successful ending to this endeavor.

B. Institutional Analysis

The objective of the USAID's efforts in the education sector is to institutionalize the educational activities of PIDE which have impacted positively on the delivery of educational services in rural primary schools. It is SEEBAC's responsibility to continue these actions as an integral, on-going part of its efforts to improve the quality of human resources, upgrade the basic academic program, and increase

educational opportunities for the Dominican Republic's rural school age children. This section describes SEEBAC's capability to carry out its role as the institution that will be responsible for the continuation of PIDE activities.

1. Institutional Perspective on SEEBAC

SEEBAC is one of the largest GODR Secretariats. It is responsible for the direction, planning, coordination and supervision of public education at all levels, including adult literacy programs and for all scientific, artistic and cultural exchanges between the Dominican Republic and other countries. In addition to its priority on increasing access to quality primary education in rural areas, the Secretariat is concerned with updating and expanding teacher training programs and reforming secondary education to prepare young Dominicans in the fields of agriculture, industry and agro-industry.

While SEEBAC has over the years continued to expand its access base, it has experienced organizational, administrative, human resource, and financial difficulties which have affected its ability to deliver timely and responsive educational services. In recognition of its shortcomings, and as a response to the demands of the educational system, SEEBAC began to address organizational and administrative problems with increased research expenditures and increased contact with international organizations. Institutional capability and administrative procedure studies were carried out in 1967, 1969, 1973 and 1976 with the assistance of various donor organizations including the USAID.

In 1978, USAID/DR cooperated with SEEBAC in an analysis which resulted in the publication of the Education Sector Assessment of the Dominican Republic. Based on the documented inadequacies and deficiencies identified in the study, the GODR realized that it had a public service institution which was one of the largest consumers of the national budget and one of the most ineffectively administered.

Two major activities followed the Sector Assessment. The first was the AID-sponsored PIDE project; the second was a comprehensive project in cooperation with UNDP and UNESCO to develop strategies for "overhauling" the SEEBAC administrative structure. This study identified the inadequacies of SEEBAC's organizational structure and service delivery system. The major institutional shortcomings of SEEBAC were identified as:

- a. Inappropriate organizational structure.
- b. Undefined lines of authority.
- c. Emergency and crisis decision making administrative styles.

- d. Duplication of efforts.
- e. Inadequate and inappropriate utilization of available resources.
- f. Lack of coordination and communication among SEEBAC departments, units, offices, commissions and projects.
- g. Inadequate job descriptions for employees
- h. Inadequate promotion and remuneration policies.
- i. Lack of foresight, planning and projection for SEEBAC institutional expansion.
- j. Inappropriate and inadequate distribution of financial resources.
- k. Inadequate personnel policies and procedures.

SEEBAC is in the process of addressing many of these administrative issues and has utilized the recommendations to develop an organization and administrative manual. The Manual of Organization and Functions provided SEEBAC managers with the information to more adequately fulfill responsibilities and to more effectively utilize available resources. The manual identifies the legal base for each SEEBAC institutional unit and its responsibilities; defines scopes of work for employees; and establishes lines of authority, institutional goals and objectives. Furthermore, responsibilities among and between SEEBAC units were coordinated and administrative operations standardized. The manual also advocates a decentralized decision making process (i.e., the núcleo approach). Finally, basic planning and budgeting procedures were established.

SEEBAC has incorporated many of the recommendations to restructure its organizational and administrative system. The Secretariat has created definite hierarchical levels which are divided into assistant secretariats, departments, units, sections, projects, and programs. Special programs and projects now operate within General Directorates. SEEBAC personnel involved in special projects must coordinate all actions and maintain communication with the regular SEEBAC employees who are responsible for assisting in the planning, implementation, and evaluation of the programmed activities. Outside technical personnel are to be hired only when qualified SEEBAC personnel are not available. Special projects are to be designed to maximize the utilization of available resources within each SEEBAC unit thus minimizing the need for permanently hiring additional staff which increases the recurrent cost responsibility of the GODR. Available

physical infrastructure is being better utilized to reduce operational expenses and improve the quality of services at the local, regional and national level. Less space is being rented and more existing structures are remodeled. Institutional organigrams showing the current SEEBAC structure are included in Annex G.

2. Institutional Feasibility of PIDE within SEEBAC

The PIDE project has been fully integrated into the SEEBAC. The Assistant Secretariat for Education Administration provides PIDE with necessary resources and backstopping through its General Directorate for Primary Education, General Directorate for Human Resource Development, Departments for Teacher Training, Personnel Training and its Technical Department. The Assistant Secretariat for Technical and Pedagogical Affairs is responsible for mobilizing human and material resources from its General Directorate for Curriculum and Educational Evaluation, General Directorate for Education Technology, and the General Directorate for Teacher and Student Services to complement PIDE efforts. Within these Directorates the following Departments assume their respective responsibilities:

1. Department of Curriculum
2. Department of Education Evaluation
3. Department of Educational Technology
4. Department of Teacher Services
5. Department of Documentation and Libraries

The General Directorate for Regional Affairs provides the support to PIDE at the rural level through its Department for Rural Education.

The PIDE Project is directly dependent on the General Directorate for Primary Education which in turn coordinates planning, implementation and evaluation of activities with the Office of Technical Planning, Directorate for Administration, General Directorate for Regional Activities, Assistant Secretariat for Technical and Pedagogical Affairs, Assistant Secretariat for Education, and the General Directorate for Cultural Affairs. This administrative linkage provides good support to the PIDE project. PIDE's key components of classroom construction, school maintenance, teacher and administrator in-service training, educational materials development, research and planning, and evaluation are thus directly related to existing SEEBAC offices.

PIDE's Executive Director and support staff make the necessary contacts with SEEBAC personnel to form task oriented interdepartmental teams whose role is to develop strategies, techniques,

methods, materials, and timelines for implementing mutually agreed upon activities. Budgets, follow-up activities and evaluation responsibilities are also shared by team members. SEEBAC managers are kept informed of all actions and are provided feedback regarding the accomplishment of objectives, problems, and bottlenecks. Quarterly reports supplement other communication and coordination efforts.

The PIDE project office has a staff of 31 people of which 15 are contracted for the duration of the programmed activities. The executive director, educator, five technicians, the director of educational programming, and six members of the support staff are regular SEEBAC staff. To maintain the efforts of the PIDE team as an integral part of the Secretariat will require only a minimal investment in recurrent costs.

3. Coordination of PIDE with the Other Donor Projects

SEEBAC's Technical Department and the Office for Communication and International Relations work with the Assistant Secretariat for Education Administration in coordinating implementation with other donor activities for rural primary education and necessary ancillary services such as access roads and power. Although other donors are implementing projects in the PIDE target area there is no duplication of educational activities since each has financed activities different from those which USAID/DR is supporting. Furthermore, most donor activities are concentrated in areas outside the PIDE Project functional parameters. Special concern will be given to coordinating PIDE activities and utilizing PIDE materials in the IDB project area.

4. Conclusions and Recommendations

SEEBAC is making a concerted effort to improve its service delivery capabilities as demonstrated by its on-going commitment to PIDE and the aforementioned organizational and administrative reform activities. The Secretariat's recent actions clearly illustrate the organization's openness to suggestions and recommendations that may improve the delivery of educational services. Although not a completely adequate institution, SEEBAC is making progress towards a decentralized system which includes the necessary human resources, infrastructure, equipment, monitoring system, communication and coordination capabilities, and the written policies and procedures that provide the guidance employees need to do their job effectively.

SEEBAC's educational reform objectives directly coincide with the PIDE activities and it is apparent that these activities are being well integrated into the regular SEEBAC structure.

C. Social Soundness Analysis

The objective of this analysis is twofold. First, it is to review the validity of the social soundness analysis for PIDE I which demonstrated the need for the project and its compatibility with the socio-cultural environment. The analysis assesses the likelihood that replication of the new practices introduced in PIDE I will occur in the rest of the country. Second, the section also suggests the social impact that the project can be expected to have when project activities are extended to the Cibao Oriental.

1. The Geographic Expansion Area: The Cibao Oriental

PIDE I was geographically focussed on the rural areas of the provinces of Azua, Peravia, San Cristóbal, Monte Plata and the rural areas of the National District. This area, when ranked on the basis of quality of life indicators such as per capita income, education attainment levels and general health status of the population, falls within the lower 50% of the country. The economic and social characteristics of the region documented in the original PIDE Social Soundness analysis remain valid.

PIDE II will add a new geographic focus: the rural areas of the Cibao Oriental. This region is formed by five provinces: Salcedo, Duarte, Sánchez Ramírez, María Trinidad Sánchez and Samaná. The territory is 4,299 km² which amounts to 11% of the national area. The area is essentially rural. According to the 1981 census it has a population of 639,630 residents, out of which 72.8% are living in the hinterland and are engaged in agriculture as a primary economic activity. In comparison with the rest of the country, this region ranks in the lower half on the basis of quality of life indicators such as education, health, communications, housing and per capita income. A statistical summary of major social indicators comparing the Cibao Oriental to the rest of the country is contained in Annex J.

a. Effects of Social Structure on Primary Education

Similar to other rural areas of the country, the most significant social structure in the Cibao Oriental is the matrifocal family. The prominence of the female is related to the fact that, among lower classes, and especially in rural areas, a consensual union is a culturally acceptable pattern of living and mating arrangement. This situation has an important impact on primary education. Children growing up in home environments such as these, are most frequently those who leave school early, repeat classes, and otherwise exhibit very low academic productivity. It is generally accepted that students in this group are in a significant disadvantage in relation to others coming from more economically and socially stable family environments. By improving curriculum design and implementation, the project could have a very

positive influence providing better support to children of disadvantaged backgrounds and eventually contributing to the transformation of the social structure.

Community level organizations in the region are a potential resource. Self-improvement associations such as PTA's^{1/} are numerous although they do very little significant work. It has been proven by PIDE I that communities are willing to help and to be involved in supporting local schools. Based on this assessment it has been determined that the already existing parental associations and the values of solidarity and neighbor-cooperation, already existing in the culture, can be put to good use in the development of the PIDE II project. It is a common experience of officials working in PIDE I that the efforts made by the authorities are usually reciprocated at local levels.

b. Economy

The main economic activity of the eastern Cibao region is agriculture. In 1978, it represented 26% of Gross Regional Product (GRP) with a significant 79% of the economically active population employed in this sector. In recent years, however, agriculture has not been a growth activity. Because of inappropriate land use, the lack of appropriate technologies and inadequate support, the production level has remained stagnant.

In 1978, 17.6% of the GRP of the zone was produced in the gold and silver mine of Pueblo Viejo. Although this is an important financial resource to the state and country, it does not offer a significant number of jobs locally.

Industry and agro-industry are growing activities in the region, but they still represent a minor portion of the GRP (3.5% in 1979). The most promising sector at present is tourism. In the eastern Cibao there are beautiful beaches, some mountains and attractive landscape. They have a potential role to play in the development of international tourism in the country.

According to the more recent available estimates, the economically active population of the region is around 150,000 persons over 15 years of age. This amounts to 27% of the total population of the zone. Unemployment is high (almost equal to national figures) reaching 24% of the economically active population.

Around 85% of the farms are small and they amount only to 22% of the productive land. Average size landholdings are around 15% of the total, occupying 54% of the land while major properties are only 0.1% but cover around 23% of the total. The traditional conflict

^{1/} The PTA in the Dominican Republic is formed by teachers and parents. More than 95% of the schools have associations.

between major land owners and the farmers with subsistence agriculture is present but it is relatively more acute in the Duarte and María Trinidad Sánchez provinces.

The Instituto Agrario Dominicano (IAD) has 27 settlements in the Cibao Oriental. More than 18,000 farmers are working in these lands (approximately 2 million tareas).

c. Quality of Life

The region as a whole falls slightly below national averages in quality of life indicators such as health, education, income and housing. In 1979, the census showed a regional housing deficit of 1,774. Of the existing number 22% were in urban centers and 78% were located in rural areas. A significant 93% needed repairs, and only three of each ten houses in the rural areas has running water.

According to data from the Central Bank, family incomes are between RD\$51 and RD\$200 per month. The average income for the rural areas is around RD\$1,200 on a yearly basis. Communications are limited. The network of local roads is clearly insufficient. Telephones are scarce.

In 1979, the Cibao Oriental had 1.27 hospital beds per 1,000 persons. This proportion was slightly below the national rate which was 1.33 at the time. The most frequent illnesses are those commonly found in an underdeveloped region where infectious and parasitic diseases are very frequent and a major cause of death. Malnutrition is also prevalent in the rural areas. The 1979 infant mortality rate in the region is 7.6 per thousand, ranging as high as 16.1 in one province, compared to the national figure of 4.9.

Education conditions in the rural areas are likewise poor. The estimated percentage of illiterates in 1982 for the region is 36.6%, as high as 47.3% in one province, compared to a national average of 30.3%. There are 90 nucleos in the area with approximately 940 schools. A significant 66% of the teachers of the region are not certified. The majority of these (83%) are located in the rural areas. These teachers have not completed a teacher training school degree, which is equivalent to secondary education. Most of the enrollment in the primary schools is concentrated in the first three years. Not surprisingly repetition and dropout rates are high. The administrative personnel are no better prepared. Out of 69 núcleo Directors questioned, only 54% have a secondary school degree. Most of them have not received any special training to prepare them for their duties.

d. Conclusion

There are few substantial differences between the PIDE expansion area and original PIDE area. It should be remembered that the Dominican Republic is a small country without significant

geographical barriers or strong ethnic differences. There is a general level of homogeneity. In general, it is also true that the rural areas have worse living conditions than the cities and that they have greater needs in all major social services: education, health, communications, etc. The Cibao Oriental exhibits the same socioeconomic problems of other primarily rural areas of the country.

Nevertheless, there are some differences among the major regions in the country. In this case, it is important to note these special characteristics of the Cibao region.

- a) The Cibao Oriental has additional sources of wealth other than agriculture and related traditional economic activities in the country. The main two are mining (Cotuí) and tourism (Samaná). This, on the surface, would be expected to cause a lower level of internal migration and less unemployment.
- b) There are three higher education institutions in the region. The Universidad Autónoma de Santo Domingo has two different sites: one in San Francisco de Macorís and the other in Nagua. Also there are two private institutions: the Universidad Nordestana (UNNE) at San Francisco de Macorís and the Instituto Tecnológico del Cibao Oriental (ITECO). These three institutions of higher learning are capable of developing many programs and activities. Although concentrated for the most part in urban areas, they are having an important cultural influence in the region. Another important cultural influence is Radio Santa María, located in La Vega. This radio station reaches most parts of the region and has a major cultural and educational role. By comparison, there is only one institution of higher learning in the original PIDE area.
- c) Another two factors to be considered in the region are the traditional high level of political involvement in the Duarte province and the particular ethnic characteristics of Samaná. Both elements are important, but cannot be considered as constituting the basis of a significantly different region.

Thus, while the Cibao Oriental is a distinct region within the country, it has its own particular traits. The differences from the PIDE I region do not affect the rationale for choosing the region for PIDE II operations.

2. Critical Issues Affecting Rural Primary Education

a. Economy

The difficult financial situations of rural families do not allow them to give the necessary support to their children. When a student arrives at school they are often not well fed or dressed, they lack books and basic supplies. This reality is to be considered in curriculum design and educational materials development. Another related area that proves to be a barrier to school attendance is the contribution, in labor, that children are expected to make to the household. Teachers must be conscious of this factor and make the necessary adaptations in order to permit both processes to go on.

b. Family Attitudes

In general it is a widely accepted belief that education is considered valuable by the Dominican population, even among people in remote rural areas. Nevertheless, many families think that a very basic education could be sufficient. The existence of a parents' association in most schools can be an important source of help to encourage the completion of at least 6 to 8 years of basic education. Given the socio-economic conditions of the region and the fact that, for the most part, dropouts and repetition are caused by this environment, it is important to work on family involvement in the education process.

c. Educational Resources

There are several critical issues in this area that were identified in the analysis. The most obvious is the need for more and better facilities. The facilities also need to be equipped to the minimum standards. PIDE will respond adequately to this need. PIDE I has shown that community participation is not only possible but appropriate, and is a means of inducing more responsible attitudes toward the new construction. The PIDE Project Office through the regional, district and núcleo offices needs to continue to encourage the active participation of the community in both construction and maintenance. Teachers must be encouraged to play a role as community leaders. PIDE I showed that in-service teacher training can and does have a positive impact not only on the teachers classroom skills, but also in their attitude and motivation toward their job and role in the community. The schools could and should become centers of social promotion for the children and their adult environment. In this way, the social impact of the project in the region will be broadened beyond the classroom. Such training programs are considered an important element, including emphasis on a special leadership training module.

d. Curriculum

The curriculum needs to build connections between the student's daily rural life and the school so that the students are better prepared to deal with and benefit from their environment.

The practical arts elements that have been added to the curriculum since PIDE I are to be carried out in the expanded PIDE area. In PIDE II, the program should be related to cattle raising, dairy activities and tourism related activities.

Another important factor to be added in both PIDE areas is to establish clearly defined measurable objectives at the primary levels. Minimum competencies in each subject matter should be established with consideration given to regional differences. Only in this way are promotion rates a really significant indicator of internal efficiency.

e. Radio Education

The region has experience with the well-known and recognized Radio Santa María. A high rate of acceptance of radio education can be assumed. At the same time, the project will start in the PIDE I zone, an area already familiar to PIDE officials. After a testing period, it can be expected that the activity will be incorporated in the Cibao Oriental without major problems.

3. Social Benefits to the Project Zone

The immediate benefits of PIDE II will accrue to (a) students, (b) families and parent-teacher groups, and (c) teachers and their supervisors. The project cannot be expected to affect the eastern Cibao region's underlying problems of land tenure, low agricultural production, slow growth of non-farm employment, and high incidence of poor health and inadequate housing. In the longer time-frame, the project can expect to contribute to improving the quality of education that is offered to those who are candidates for the region's higher education institutions; to point the way to expanded use of radio education and an improved curriculum; and to making more effective the participation of both parents and teachers in a decentralized system of educational administration.

For students, the project will provide improved facilities, materials, curriculum and teaching sufficient to enable 90% of the eligible primary school population of 140,000 to receive an education. Teacher training will be given to improve the pedagogical skills and community relation skills of 75 percent of the 2,600 primary school teachers in the zone. 800 classrooms and 343 ancillary spaces will be added to the region's total.

With this program of improvements, the project seeks to improve on the current rates of retention of students, achievement of basic competencies, and to better prepare children for future jobs in the region. In addition, the project will offer parents training to support more effective participation in school activities, with the hope that children will thus have the kind of home support for their schoolwork that is so important to attendance and achievement.

D. Economic Analysis

The proposed PIDE II loan for 1984-1989 has four principal components:

1. Construction of educational facilities and purchase of equipment;
2. Training of teachers and administrators;
3. Implementation of radio mathematics; and
4. Strengthening of information systems in SEEBAC.

The project will provide construction funds to improve both educational access and quality. Improved educational access will reduce the private costs to students and thereby reduce what may be involuntary dropouts. The result should be lower cost per graduate. The project intends to improve educational quality by upgrading the qualification of teachers and by providing educational materials, which will improve learning and promotion rates among school children.

Total economic costs of the project using the current parallel market exchange rate as the shadow rate are estimated at about US\$12 million. Total socio-economic benefits of the project, on the other hand, are difficult to measure in monetary terms. Conceptually, the benefits can be divided into two broad categories, public and private.

The marginal public benefit would take the form of less unemployment, fewer social disturbances and public charges, more tax payments, more active civic participation, better family environment, better education for future generations, etc. Obviously, these public benefits are not only difficult to estimate, but also in some cases they can turn out to have the opposite effects of those expected. Because of this high uncertainty, the usual rate of return analysis is considered inappropriate to this type of project.

The private rate of return, however, is not as complicated conceptually. The private benefit is the present value of the difference in the future income stream, the income difference between being and not being a literate laborer. The private cost is simply the opportunity cost of being in the school. Although lack of data prevents the

estimation of the private rate of return, many studies in other countries confirm high private returns for the primary school education such as proposed in this project.

The analysis presented here will emphasize the potential impact of the project activities on efficiency of the educational system. Results of the PIDE I project are used to provide an empirical basis for some conclusions.

Impact of Project on Economic Efficiency

Economic efficiency as used herein refers to maximizing output of given resources. If four years of education is regarded as the minimum required for effective literacy, output can be defined as those individuals in the elementary school system receiving four or more years of education. For purposes of comparison, another measure of output, six years of education, will be presented as well.

Current promotion rates show that of every 100 students who entered Grade 1, around 36 enrolled in Grade 4, 23 enrolled in Grade 6, and only about 19 graduated from Grade 6. Since data are not available on more recent cohorts or on the PIDE II region in particular, we have estimated what promotion rates would be if existing grade-to-grade differences in enrollment could be taken as representative of year-to-year differences for cohorts. The resulting promotion rates are given using 1982-83 enrollment figures. (See following Table I.)

TABLE I
PROMOTION RATES FOR NATIONAL 1975 COHORTS AND
PIDE II 1982-83 ENROLLMENTS

| <u>Region</u> | <u>Grade 1</u> | <u>Grade 4</u> | <u>Grade 6</u> | <u>Grade 6 Graduates*</u> |
|-----------------------------|----------------|----------------|----------------|-------------------------------|
| Country, 1975 cohort | 100 | 36.4 | 23.4 | 18.8 |
| Country, 1982-83 enrollment | 100 | 40.1 | 26.2 | 21.0 |
| PIDE II, 1982-83 enrollment | 100 | 38.2 | 24.2 | 19.4 |
| Sanchez Ramirez | 100 | 38.2 | 23.0 | 18.4 |
| Duarte | 100 | 37.5 | 21.3 | 17.1 |
| Salcedo | 100 | 44.6 | 30.6 | 24.5 |
| Maria T. Sanchez | 100 | 40.0 | 29.5 | 23.7 |
| Samaná | 100 | 30.1 | 20.1 | 16.2 |

Source: SEEBAC, Educación en Cifras, 1982-83, Diciembre de 1983, USAID, "Economic and Financial Analysis of Human Resource Development in the Dominican Republic," April 1984.
Calculated based on same cohort as 1975

For the country as a whole, the projected promotion rates for 1982-83 enrollment are slightly higher than those found nationally for the 1975 cohort. However, promotion rates in the PIDE II region are lower than those for the whole country indicating potential room for improvement. Furthermore, data for the whole country indicate that, for 1982-1983 enrollee, 6.1 years of schooling will be required to produce one 4th grade enrollee, and 11.5 years will be required to produce one 6th grade enrollee. In contrast, 6.3 and 12.2 years will be needed for graduates in PIDE II schools. (See following Table II.) Obviously, the educational efficiency in the PIDE II region is behind the national average in terms of promotion rates and the number of years of schooling and is in need of improvement.

TABLE

YEARS OF SCHOOLING PER ENROLLEE IN FOURTH AND SIXTH GRADE

| Location | Enrollment 1-4 Enrollment G.4 | Enrollment 1-6 Enrollment G.6 | Enrollment 1-6 Graduates G.6 |
|--|----------------------------------|----------------------------------|---------------------------------|
| <u>Country</u> (1975 Cohort) | | | |
| Urban | 6.9 | 13.2 | 15.6 |
| Rural | 7.8 | 14.3 | 18.4 |
| Total | 7.5 | 13.9 | 17.3 |
| <u>Country</u> (1982-83 Cohort) | | | |
| Urban | 5.1 | 8.4 | - |
| Rural | 6.7 | 12.4 | - |
| Total | 6.1 | 11.5 | - |
| <u>PIDE II</u> (1982 Enrollment Data) | | | |
| Urban | 4.9 | 7.9 | - |
| Rural | 6.7 | 12.2 | - |
| Total | 6.3 | 12.2 | - |

One measure of efficiency is cost per unit of output. Costs per graduate are estimated (see Table III) using the average cost of the graduates for rural and urban schools and the average year of schooling given in Table II. (The recent USAID education sector update estimated the average cost per graduate as RD\$56.14 for rural and RD\$88.53 for urban schools.)

Table III shows that costs per graduate are lower in rural than urban schools for grade 4 graduates. This reflects lower annual costs per student (as a result of larger class sizes and less-qualified teachers) rather than higher promotion rates among rural schools. However, even given the lower annual costs per student, the cost per 6th grade graduate is higher for rural than urban schools in the PIDE II region due to longer years of schooling. And, removing the variation in annual costs per student by assuming equal costs as is done in the last two columns of Table III, costs per 4th and 6th graduates increase considerably for rural than urban schools, especially in the PIDE II region. These results suggest that large potential gain in efficiency exist among rural schools, especially in the PIDE II provinces.

TABLE III
UNIT COST PER GRADUATE

| | Assuming Area Specific Unit Costs for 1983* (RD\$-1984) | | Assuming National Average Unit Costs for 1983 (RD\$-1984) | |
|----------------|---|---------------|---|-----------------|
| | Grade 4 | Grade 6 | Grade 4 | Grade 6 |
| | <u>Ideal Case</u> | 287.92 | 431.88 | 287.92 |
| <u>Country</u> | | | | |
| Urban | 451.50** | 743.76 | 367.09 | 604.63 |
| Rural | 376.13 | 696.13 | 482.16 | 892.55 |
| <u>Total</u> | 439.07 | 827.77 | 439.07 | 827.77 |
| <u>PIDE II</u> | | | | |
| Urban | 433.79 | 699.38 | 352.70 | 568.64 |
| Rural | <u>376.13</u> | <u>842.10</u> | <u>482.26</u> | <u>1,079.70</u> |
| <u>Total</u> | 453.47 | 878.15 | 453.47 | 878.15 |

* Urban and rural area unit costs calculated by multiplying national average by ratio of urban to national and rural to national as given in USAID, "Economic and Financial Analysis..." Assuming 1983 national unit costs of RD\$71.98 (expressed in RD\$1984), the corresponding unit costs in rural areas are RD\$56.14 and in urban areas RD\$88.53.

** For example, this unit cost is estimated by RD\$88.53 times 5.1 years.

Table IV reports the annual savings which could be obtained from improving promotion rates in rural schools in the PIDE II region. The numbers indicate how much the cost associated with producing the 1982-83 4th and 6th grade graduates could be reduced. If promotion rates improve to that of the ideal case, assuming a unit cost of RD\$56.14, and 13,789 fourth grade graduates of rural schools in PIDE II, savings would amount to RD\$2.2 million; for the 7,790 sixth grade graduates, the savings would be RD\$3.9 million. Obviously, the savings are higher when unit costs are assumed to be higher.

The ideal case is an unattainable one, but other cases are possible. These include increasing promotion rates (or reducing student-years per graduate) to the national average, to the average for rural areas, or to the average for urban areas in PIDE II. In addition, savings between 5 and 12% have been calculated if the gains in promotion rates (or decreases in student-years per graduate) became identical to those found under PIDE I. Assuming the annual benefits to last for 25 years and a real discount rate of 7.5%, the present value of savings varies in Table IV between zero and RD\$15.5 million, the case in which promotion rates for grade 4 in rural education in PIDE II are brought up to promotion rates for urban education in the same region. While the true figure may lie somewhere in between, this analysis shows a large potential gain in public savings by improved promotion rates.

Another source of large potential public savings is the school access improvement. The PIDE I project indicates a 32% increase in school access during the 1978-1983 period. If the same performance is repeated in the PIDE II area, public savings will increase by the same proportion, assuming all other factors being the same. Finally, this simple net present value computation ignores the fact that the principal economic benefit of the proposed loan is increased economic productivity and income, not savings in educational expenditures. In conclusion, the PIDE II project is likely to result in potentially large financial savings in producing 4th and 6th grade graduates.

TABLE IV
ANNUAL SAVINGS RESULTING FROM IMPROVEMENTS IN PROMOTION
RATES IN RURAL AREAS OF PIDE II
(In thousands)

| Savings if Years per Graduate in Rural Areas were Reduced to that Found for:* | Assuming a Unit Cost Per Student of RD\$56.14** | | Assuming a Unit Cost Per Student of RD\$71.98 | |
|---|---|----------------|---|----------------|
| | <u>Grade 4</u> | <u>Grade 6</u> | <u>Grade 4</u> | <u>Grade 6</u> |
| 1. Ideal Case*** | 2,190.4 | 3,936.3 | 2,679.2 | 5,046.4 |
| 2. National Average | 0.5 | 1,530.7 | 595.7 | 1,962.3 |
| 3. National Average for Rural Areas | 0.0 | 1,137.3 | 0.0 | 1,457.5 |
| 4. Average for Urban Areas in PIDE II | 1,394.1**** | 3,105.1 | 1,792.6 | 3,981.5 |
| 5. 5% Reduction | 259.3 | 328.0 | 332.5 | 420.5 |
| 6. 12% Reduction | 622.4 | 787.2 | 798.0 | 1,009.3 |

* Not having numbers on graduates at each grade level for rural areas of PIDE II, enrollment in each grade level is assumed equivalent to graduates for that grade level.

** RD\$56.14 is the estimated unit cost in 1983 (expressed in 1984 values) for rural areas of the country; RD\$71.98 is the estimated unit cost for all areas of the country.

*** The ideal case is one where all entrants of a cohort in grade one also graduate without repeating grades from grades four and six.

**** This annual saving is calculated as RD\$56.14 times No. of students times (6.7-4.9).

Radio Mathematics

The typical model of educational achievement posits that the current level of learning is determined by the prior level of learning, the socio-economic environment of the home, and the school environment. Traditional mathematics education in the Dominican Republic has resulted in low achievement scores relative to other countries. Poor teacher preparation and inadequate school materials are among the major causes of this low achievement. While one prescription for improving mathematics achievement is to improve these school resources, another is to introduce new instructional technology, in this case radio education.

Supporting evidence for the effectiveness of radio in teaching mathematics comes from experiments conducted in Nicaragua, Thailand and Barahona in the Dominican Republic. Nicaragua provides the most comprehensive evaluation of radio education to date. Gains have been achieved in Nicaragua in post-test mathematics achievement ranging from 1% at grade 4 to 60% at grade 1, with an average gain of 25%. If the Nicaraguan experience is repeated here, the ratio of effective learning to cost can be estimated as shown:

$$\frac{\text{percent gain in learning}}{\text{percent increase in cost}} = \frac{25\%}{3.0\%} = 8.3$$

where 3% represents the cost of radio math education and 8.3 represents the elasticity of mathematics achievement with respect to input costs.

While it is difficult to make direct comparisons between this and other production elasticities, the absolute magnitude of this elasticity is very high relative to other production studies.

The Information System

While the three activities of upgrading personnel, developing educational materials, and building schools primarily affect a specific region of the country, the activity of improving SEEBAC's ability to collect statistics and undertake planning and research will affect the whole country. It is expected that USAID expenditures of US\$300 thousand and GODR expenditures of RD\$600 thousand under the project on this activity will result in a total economic cost of US\$522 thousand at the shadow exchange rate.

An economic analysis of these expenditures is feasible in theory but extremely difficult in practice. In theory, this activity should help provide information that will improve decision making both by SEEBAC and aid donor agencies. As a result, mistakes should be avoided and more efficient decisions be made with respect to resource allocation

both within and outside SEEBAC. In practice, it is difficult to empirically demonstrate how this improved information in fact produces better decisions.

While it is evident that the need for improved statistics, planning and research within SEEBAC is a large, the PIDE I loan did not succeed in significantly improving this activity, in part due to high turnover in personnel. However, SEEBAC has now appointed highly capable professionals to improve the planning division. As a consequence, if a more efficient information system is in place, it will not be inconceivable to save operating expenses. A 5% savings, due to better informed decisions, would mean RD\$3 million each year.

Teacher Training

The PIDE II loan anticipates total economic cost of US\$3.2 million on training teachers, administrators and technicians during the life of the project. The proposed activity includes the preparation of training materials, administrative guides and training educational personnel similar to that carried out under PIDE I. Upgrading teaching skills is of particular importance in the PIDE II region. As noted in the social analysis, only 26.1 percent of teachers in the Cibao Oriental subregion are certified.

Teaching skills can be improved by either employing additional certified teachers and/or providing in-service training to existing teaching personnel (certified and non-certified). According to the updated sector assessment, fewer than seven hundred teachers are graduated from the country's teacher training institutions each year; many of these teachers aspire to employment in Santo Domingo and other urban areas. Hence, it is not feasible to rapidly and substantially improve teaching skills in the PIDE II region through the employment of additional certified teachers.

Further, teacher training is expensive. In 1982, approximately 1,700 students were enrolled in teacher training institutions at a unit cost of RD\$856 (expressed in 1984 prices) and a cost per graduate of approximately RD\$2,200, or US\$814. In contrast, the PIDE I in-service training program for educational personnel has experienced costs of RD\$37 (RD\$44 in 1984 prices) per course participant for instruction taking place outside the district and only RD\$2.82 per course participant for training taking place at the district school.

While the content of in-service training cannot be directly compared with that of pre-service teacher training, they can be viewed as alternative means of improving teacher quality. In terms of costs, fifty teachers can be provided off-site, in-service training (one course) for every graduate produced by a teacher training institution.

The magnitude of this tradeoff is even larger if one includes the additional teachers receiving on-site training from educational personnel already trained off-site. The ratio of number of individuals trained on-site to those trained off-site is 4.00; in other words, on average, every recipient of off-site training in turn provides training to four additional teachers at the locus of the school.

Unfortunately, no objective data exist to determine which alternative -- formal teacher education or in-service training -- is most cost-effective in the Dominican Republic. In PIDE II, we plan to provide the low cost teacher training as did in PIDE I.

E. Financial Analysis

The GODR is facing the worst fiscal crisis in recent history. Sharp declines in tax revenues combined with steady increases in operating costs have reduced the capital budget and public savings significantly. New tax measures have not yet proven effective in mobilizing additional resources to support development programs. Availability of revenues to support these programs are extremely limited. However, because of the high priority assigned to education, the GODR plans to utilize more foreign resources to increase its human resource base which would provide a literate work force for future development. The GODR plans to assign RD\$16.3 million for the project and additional \$2.4 million per year for the recurrent costs.

The cost of public primary education in the Dominican Republic is not too high. An average of 5.5% of the national budget goes to primary education. Although the GODR recognizes the importance of the investment in primary education and is committed to the promotion of basic human capital, it is becoming increasingly difficult to keep up financially with the growing demand on the education system. Despite some progress, the Dominican Republic faces the prospect of having more school age children out of school than in school, and unless considerable progress can be made in improving the efficiency of the primary school system, the goal of universal access to basic education will remain unattainable for the foreseeable future.

As stated in the financial plan, the budgetary breakdown shows that, over the life of project, \$24.3 million will be utilized to improve the rural educational system in 4 provinces in the Dominican Republic. Approximately 45% of total funding will be to finance construction of new schools, 28% to cover salaries, around 4% to cover consultant's costs, 5% for training of teachers and school administrators, 8% to the purchase of commodities and 10% for administrative and contingency use. All these inputs will go in support of the continuation of the PIDE I model, especially in the areas of school construction and information systems. Radio education will be a new component based on the RADECO pilot project.

There are major gaps in the quantity and quality of teachers available to educate others, and this project does respond to this need by providing RD\$8.7 million in training, technical assistance and salary support. Although 200 new teachers will be integrated into the system, the project is aimed more at improved training of existing personnel to create a more efficient and higher quality educational process. The same approach is true of the construction component, where, although construction of new facilities are projected, a simple linear expansion of the system is not envisaged, but rather inputs are aimed at sharpening management practices by providing maintenance tools and by rehabilitating existing facilities to better serve the primary education system.

1. The Information System

Although the need for improved statistics, planning and research is critical, the PIDE I Project did not significantly improve operations in this activity. In terms of budget appropriations, SEEBAC has not attached high priority to statistics and planning. Of the RD\$70.5 million budget proposed for SEEBAC in 1984, only \$0.13 million is budgeted for the Planning Office which amounts to 0.2%. USAID expenditures of US\$400 thousand and GODR expenditures of RD\$500 thousand for a total of RD\$0.9 million, at the official exchange rate, are projected to be spent on this activity. Improvements made in the information system, especially in the areas of planning and research, could easily save the SEEBAC budget about 5% which means RD\$3.5 million per year or more than RD\$14 million over the life of project. (See Economic Analysis.) These saved resources will be more than sufficient for recurrent costs after project completion.

2. Teacher Training and Educational Material

The project anticipates total outlays of \$7.7 million on training of teachers, administrators and technicians. The proposed activities include the preparation of training materials and administrative guides and actual training of educational personnel. The GODR support will be for salary payment to new hires. AID, on the other hand, will finance a long-term resident advisor and offshore training.

The upgrading of teaching skills is of particular importance in the PIDE II region. Only 26% of the rural teachers in the Cibao Oriental are certified. Long-term teacher training is expensive and official data show approximately 1,700 students were enrolled in teacher training institutions at a unit cost of RD\$856, with a cost per graduate of approximately RD\$1,000. In contrast, the PIDE I in-service training program for educational personnel experienced costs of RD\$37 (RD\$44 in 1984 prices) per course participant for training outside the núcleo or district and only RD\$2.82 per course participant for training taking place at the school or núcleo site (see Economic Analysis).

Outlays on materials and supplies constitute a very small proportion of SEEBAC's budget for primary education. For 1984, RD\$132,900 is budgeted for this expenditure category; this sum represents approximately 0.20% of the total primary education budget. Using the existing market exchange rate, this sum is equal to \$49,000, or approximately four cents per child. Furthermore, a disproportionate amount of outlays on materials and supplies go to urban schools, implying that rural schools receive less than four cents per pupil in supplies.

SEEBAC has many pressures on its budget and cannot easily increase outlays on educational materials. Direct provision of educational materials to rural schools in PIDE II will ameliorate the problem.

3. Radio Mathematics

The objective of this component is to improve the quality of mathematics education. The project anticipates expansion of classrooms and grades using radio education over time from the first grade (100 classrooms) in 1985 to the fourth grade (11,850 classrooms) in the fourth year of operation. Some 325,000 students are expected to be participating in this component by the end of the project.

Because of the large startup costs, average costs per student of mathematics radio education will be high early in the program and diminish rapidly as the number of classrooms and pupils increases. On the other hand, the total variable or recurrent costs of the program to the GODR will increase as the number of classrooms and pupils increases.

The GODR post-project recurrent costs for the radio education in the Central and Cibao regions amounts to RD\$263,250 per year. Included in these costs are the replacement costs for radios, tapes, and instructional materials. Assuming a total of 325,000 students in grades 1-4 by the end of the project, unit cost per student amounts to RD\$0.81 per student. Since there is a component of fixed costs (radio broadcast, SEEBAC personnel, et.), unit cost will vary inversely with number of students receiving radio mathematics instruction.

4. School Construction

SEEBAC estimated a need for 803 new classrooms and 343 ancillary spaces in the PIDE II region. Precise estimates of the number of schools that need rehabilitating await a more comprehensive survey.

The costs of new construction and rehabilitation of needed school space is estimated at RD\$11.0 million, although this estimate, too, will change as more information is gathered on school facilities and locations in the region. The cost of constructing a classroom varies depending on the construction site, construction materials, whether or not the room is an addition to existing facilities, and whether the room is newly constructed or rehabilitated. For purposes

of this project analysis, we have used as the unit cost of construction the cost associated with building a new, single room facility located on a favorable site with adequate road access; this cost has been estimated at RD\$11,146.

USAID funding of US\$3 million and GODR funding of RD\$9.3 million for a total of \$12.38 million in school remodeling and construction in the PIDE II region is anticipated in the project.

5. Implications of the Project for Recurrent Costs of the GODR

Budgetary figures over the last 8 years indicate that the GODR has been willing to utilize its scarce resources for the development of its human resources. The Secretariat of Education has had a sizeable budget increase during the past years, reflecting support of its program. While this trend is expected to continue, i.e., increasing budgetary support to the educational sector, the emphasis of this project is aimed at better utilizing existing resources to carry out programs at the primary educational levels.

Relation of SEEBAC and Primary Education
Budget to Total GODR Expenditure
(In Millions of Pesos)

| | IN RD\$ Millions | | | Primary Education Budget | |
|--------|-------------------------|---------------------|--------------------------|--------------------------|---------------|
| | Total GODR Expenditures | Total SEEBAC Budget | Primary Education Budget | As % of Total Budget | SEEBAC Budget |
| 1970 | 264.8 | 36.3 | 15.0 | 5.67 | 41.33 |
| 1975 | 665.0 | 47.3 | 20.3 | 3.06 | 42.92 |
| 1976 | 580.6 | 60.1 | 21.2 | 3.65 | 35.30 |
| 1979 | 1,018.9 | 107.2 | 43.1 | 4.23 | 40.17 |
| 1981 | 1,098.1 | 131.2 | 51.1 | 4.65 | 38.95 |
| 1982 | 1,016.6 | 147.4 | 61.6 | 6.06 | 41.51 |
| 1983 | 1,198.7 | 154.1 | 69.6 | 5.81 | 45.17 |
| 1984* | 1,308.0 | 163.7 | 70.5 | 5.39 | 43.07 |
| 1986** | 1,410.0 | 173.7 | 76.7 | 5.44 | 44.16 |
| 1988** | 1,518.0 | 184.3 | 82.6 | 5.44 | 44.82 |

* USAID estimates

** Assuming an additional RD\$6 million per year in the primary education budget.

The GODR anticipates spending RD\$9.3 million during the life of the project with the actual construction being done during the first year of the project. AID inputs in construction will be US\$3.0 million.

Recurrent cost implications after project completion are anticipated in the following areas:

(a) The information system will require continued outlays on technical personnel estimated at RD\$64,000 per year. Upgrading of educational personnel is not an activity which will necessarily be continued by the GODR once the project is completed, but upgrading will eventually result in higher salaries for educational personnel, which do represent a recurrent GODR obligation. This recurrent expenditure is estimated at RD\$500,000 annually.

(b) Development of educational materials will occur during the life of the project and continuation of this activity is not anticipated beyond the life of the project.

(c) Most of the costs associated with radio mathematics are in technical assistance and purchase of commodities required for the startup. Implications for recurrent costs to replace radios, tapes and instructional materials recurrent outlays are estimated at RD\$302,900 per year.

(d) Construction is another activity which has high initial outlays, most of which will occur in the first year of the project. Buildings deteriorate, however, and require maintenance. At present, the maintenance budget for all of primary education is less than RD\$1 per classroom. A concerted effort to maintain the newly constructed schools is estimated to cost about RD\$100,000 per year although these outlays are not generous in view of the additional several hundred new classrooms.

(e) The addition of new classrooms also requires new teaching and other personnel to staff the facilities. These personnel costs are estimated annually at RD\$1,175,400 for additional teaching personnel and RD\$288,000 for support personnel.

The consequences of the project for recurrent costs can then be summarized as follows:

| | |
|----------------------------------|----------------|
| Information System | RD\$64,000 |
| Administrators Teachers Training | 500,000 |
| Radio Mathematics | 302,800 |
| Maintenance of Schools | 100,000 |
| Additional Teachers | 1,175,400 |
| Additional Support Staff | <u>288,000</u> |
| Total | RD\$2,430,200 |

If all activities associated with this project can be implemented in the 4 year project implementation period, budgeted out for primary education will be larger by 8.5% than 1984 budget, and the primary education budget as a proportion of the total SEEBAC budget would have been 46% instead of the actual 43%.

The RD\$2.4 million increase in primary school recurrent expenditures amounts to a 3.4% increase in the total SEEBAC primary education budget. Excluding the last two years, SEEBAC budgets have in the past decade approximated 4% annual growth in real terms. Since the economy is not projected to grow as rapidly in the remainder of this decade as it did a few years ago, the total GODR and SEEBAC budgets may not grow at the required rate. If not, spending priorities within the GODR or within SEEBAC may have to be adjusted to permit sufficient growth in primary school expenditures to cover the additional recurrent costs.

Other demands will also be made on SEEBAC's budget in coming years. In particular, the IDB may disburse a loan for school construction, teacher training, and textbook provision in the western third of the country. The implications for recurrent costs primarily take the form of school maintenance and increased teacher salaries resulting from higher teacher qualifications. The recurrent costs resulting from the IDB project will further strain SEEBAC's resources above and beyond the recurrent cost consequences of the proposed USAID project.

Projected unit costs per student in elementary education from the 1984 budget are RD\$63.90, which is about 25 percent lower in real terms than 1981 and 1982. The 25 percent reduction is partly attributable to lower salaries for educational personnel as opposed to fewer physical resources devoted to educational purposes. The proposed project would both increase recurrent expenditures (and physical resources for education) and improve access, thereby resulting in higher enrollments. The net effect will be an increase in unit costs. If the project, as presently funded, were to increase RD\$2.4 million as projected, unit costs per child nationally would increase by approximately three percent. This increase would still leave unit costs twenty percent lower than their level of two years ago.

V. IMPLEMENTATION ARRANGEMENTS

A. SEEBAC Administrative Arrangements

During the implementation of PIDE I, a separate administrative unit which had full authority to carry out all project activities was necessary. The Institutional Analysis of SEEBAC carried out at that time determined that a distinct project office would be the most efficient mechanism to carry out project activities. Under this Project, the PIDE Project Office will begin to let go of both administrative and technical functions, by coordinating to a maximum degree with the Directorates involved in the various project activities. (See Institutional Analysis.)

A SEEBAC Policy and Planning Committee will provide guidance and direction to a PIDE Office. The committee will consist of the Directors General of Planning, Primary Education, Teacher Training, Curriculum, and Education Technology. However, the Office will maintain full responsibility for the coordination of overall project activities. Each component will have a direct link with the corresponding Directorates. Specific functions of the PIDE Project Office will include obtaining AID approvals, maintaining PIDE's accounting records, and monitoring the implementation of all project activities.

SEEBAC will appoint a Project Director who will have overall management responsibilities for the project through the administration office. Major duties will include the scheduling of specific implementation targets for each component as well as the liaison between all SEEBAC Directorates. Providing continuity over the lifetime of the project, as well as coordinating all technical assistance and training programs are the chief roles of the Educational Planner. A Project Accountant will be appointed and be responsible for PIDE accounting and the preparation of financial statements.

The project's central office will be complemented by a regional office in the province of San Francisco de Macorís. It will be the headquarters for project technicians during site visits to the Cibao Oriental. During the first year, this office will serve as a fully functioning branch office for the construction efforts. (See Project Description.) Throughout the life of project this office will serve as an additional contact to the communities and to a lesser extent teacher training.

B. Monitoring Plan

An ongoing PIDE monitoring system will be instituted during this project. Its role will be to provide the basis for assessing project effectiveness and impact through the collection and analyses of qualitative and quantitative data.

Comparable statistical information will be collected from 100 schools equally representing the PIDE and non-PIDE areas. Baseline data complemented by continuous data gathering will be used to assess project impact on:

1. Students. Quantifiable cohorts of efficiency data, i.e., access, promotion, repetition and dropout rates will be collected. Also using pre and post tests, indicators of student achievement will be collected.

2. Faculty and administrators. Profiles will be developed for both teachers and administrators. The profiles, based on objectively verifiable indicators, will be used to determine the immediate and long-term impact of PIDE sponsored in-service training vis-a-vis teacher knowledge, attitudes, skills and habits.

3. Schools. A profile for the evaluation of school facilities will be developed, including an inventory checklist. The profile will be used to determine the immediate and long-term impact of training on school maintenance.

A contract will be awarded to a local Dominican company for the development of the instruments and actual data collection and analysis. This monitoring activity eventually will become a function to be performed by the Technical Planning Office of SEEBAC, as discussed in the Information Systems section of the Project Description. However, in order to assure that the necessary monitoring data is collected and processed for immediate project purposes from the beginning while the Technical Planning Office's capabilities are being improved, we have elected to make this a separate component for at least the first two years of project implementation. A total of \$400,000 in AID funds has been allocated to carry out the monitoring plan.

C. Implementation Plan

As stated in the Administrative Arrangements Section, the PIDE Project Office will have overall responsibility for project planning and implementation. It is assumed that the project will obtain GODR Congressional Approval for a condition precedent prior to the December 28, 1984 PACD of the PIDE I project and therefore, all PIDE management expertise and capability will continue to operate without interruption. Each of the components of this educational project has a time phased plan for technical assistance, participant training and commodity purchase. (See Table IV, V, VI and VII.) The project will be monitored by the USAID Education and Engineering Offices, the latter having responsibility for monitoring all construction activities and the former for all other project-related matters. Detailed schedules of events for all components are contained in Annex K.

**TABLE IV
TECHNICAL ASSISTANCE**

| | 1985 | | | | 1986 | | | | 1987 | | | | 1988 | | | | 1989 | | | | |
|--|------|---|---|---|------|---|---|---|------|---|---|---|------|---|---|---|------|---|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| Information System | | | | | | | | | | | | | | | | | | | | | |
| Local University Contract: | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | 5 |
| a. Information System Educ. Planner (48 p/m) | | 4 | | | | | | | | | | | | | | | | | | | 5 |
| b. Computer Technology (24 p/m) | | | X | | | X | | X | | X | | X | | X | | X | | | | | |
| c. Statistics (16 p/m) | | | X | | | X | X | | | X | | X | | X | | X | | | | | |
| d. Research | | | | | X | X | | | X | X | | | | | | | | | | | |
| Training | | | | | | | | | | | | | | | | | | | | | |
| A. CENAPEC - High School Equivalency (24 mo.) | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | 5 |
| B. In-Service: Local Univ. (36 mo.) | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | 5 |
| C. B A Firm: | | | | | | | | | | | | | | | | | | | | | |
| a) Teacher trainer (24 p/m) | | | | | | | | | | | | | | | | | | | | | 5 |
| b) Curr. Planner/Eva.(24 p/m) | | | | | | | | | | | | | | | | | | | | | 5 |
| Radio Math | | | | | | | | | | | | | | | | | | | | | |
| A. B A Firm: (24 months) | | | | | | | | | | | | | | | | | | | | | |
| a. Proj. Spec.(24 p/m) | | | | | | | | | | | | | | | | | | | | | 5 |
| b. Teacher Trng (12 p.m) | | | | | | 4 | | | | 5 | | | | | | | | | | | |
| c. Curr. Eval. (12 p/m) | | | | | | 4 | | | | 5 | | | | | | | | | | | |
| d. Radio Prod.(12 p/m) | | | | | | | | | | | | | | | | | | | | | |
| e. Radio Consult.(8 p/m) | | | | | | | | | X | X | | X | | | | | | | | | |
| f. Short Term various (3 p/m) | | | | | | | | | X | | | | | | | | | | | | |
| A. Monit. Contract (48 p/m) | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | 5 |
| B. Evaluation (4 p/m) | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | 5 |
| Key of Phases: | | | | | | | | | | | | | | | | | | | | | |
| 1. Scope of Work Prepared | | | | | | | | | | | | | | | | | | | | | |
| 2. Recruitment Started | | | | | | | | | | | | | | | | | | | | | |
| 3. Contracts signed | | | | | | | | | | | | | | | | | | | | | |
| 4. Start contract | | | | | | | | | | | | | | | | | | | | | |
| 5. End contract | | | | | | | | | | | | | | | | | | | | | |
| X. Indicates site visit | | | | | | | | | | | | | | | | | | | | | |

TABLE V
PARTICIPANT TRAINING

| <u>Activity</u> | 1985 | | | | 1986 | | | | 1987 | | | |
|---------------------|------|---|-----|---|------|---|---|---|------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Information Systems | | | 1-2 | 3 | 4 | | | | | | | 5 |

1. Define Training Needs
2. Identify Participants
3. Select Sites
4. Departure
5. Return

TABLE VI
COMMODITIES

| <u>Activity</u> | CY 1985 | | | | CY 1986 | | | | CY 1987 | | | |
|---------------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Information Systems | 1 | 2 | 3 | 4 | | | | | | | | |
| Radio Math | 1 | 2 | 3 | 4 | | | | | | | | |

1. Materials Identified
2. PIO/C Prepared
3. Orders Made
4. Orders Received

TABLE VII
CONSTRUCTION

| <u>Activity</u> | CY 1985 | | | | CY 1986 | | | | CY 1987 | | | |
|--------------------------|---------|---|-------|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Planning and Preparation | | | 1-2-3 | | | | | | | | | |
| Construction | | | | 4 | | | | 5 | | | | |

1. Sites Identified
2. Plans and Specifications Prepared
3. Sorteo
4. Construction Starts
5. Construction Ends

Key Implementation Dates

- | | |
|---------------|---|
| August 1984 | - Project Paper Authorized and Obligated |
| January 1985 | - Initial CPs met and loan agreed to by Congress. |
| | - Monitoring Contract signed |
| | - Site Selection Finalized |
| March 1986 | - Scopes of Work/selection criteria developed for technical assistance contracts. |
| | - Construction Contracts |
| | - Initial in-service training courses begun |
| April 1986 | - Construction of classrooms begun |
| June 1986 | - All technical assistance contracts signed |
| August 1986 | - Technical assistance arrives |
| | - Participant Training selection begins |
| December 1986 | - First construction inaugurated |
| January 1986 | - Participants leave |
| | - Construction finished |
| January 1987 | - First evaluation scope of work developed |
| May 1987 | - First evaluation |
| | - All construction finished |
| May 1989 | - Second evaluation scope of work developed |
| August 1989 | - Final evaluation |

D. Procurement Plan

1. Technical Assistance

During the intensive review, the USAID determined, in consultation with PIDE, that certain component specific technical assistance and training is available in the Dominican Republic. The following services will be obtained using host country contracting procedures: technical assistance and in-service training for the improvement of the SEEBAC information system will be with a local university; school construction will be carried out by private firms and engineers; the high school equivalency diplomas will be awarded by a local, private, non-profit educational institution, CENAPEC; senior administrator training will also be handled by a local university; and technical assistance to implement the project monitoring plan will most likely be with a private local institution.

Local contracting for these services will require the development of RFPs, advertising and selection by appropriate AID and host country procedures. PIDE has had experience with all these activities. Under PIDE I local research contracts were successfully let for \$100,000 to a local university. PIDE will require, however, some additional assistance in completing the scopes of work and selection criteria. All contracts will contain the standard AID clauses. USAID/DR will make payments directly to the contracted firm based on regular PIDE requests.

USAID, in consultation with PIDE, has determined that there are certain project technical assistance needs available only from off-shore sources. These technical services will be contracted directly by USAID. The selection of certain contractors by USAID would minimize delay in the timely award of the technical assistance contract. For example, the special contracting procedures needed for an 8A firm can best be handled by AID which has more experience and capability in this type of procurement. For grant funded technical assistance AID Geographic Code 000 (United States) or the Cooperating Country will be the source.

2. Commodities

Under the project, a wide array of commodities will be procured including instructional material for the classroom, practical arts materials, radios and related hardware, computer equipment and a vehicle. The existing PIDE office has a good track record of purchasing off-the-shelf items in the Dominican Republic. In the international arena, the USAID has been instrumental in assisting PIDE in preparing bid documents and assisting in customs clearance. It is expected that the illustrative procurement lists for off-shore purchases will be accomplished using similar mechanisms. (See Annex L for Illustrative List of Commodities.)

All goods and services procured under the loan will have their source and origin in countries included in AID Geographic Code 941 or the Cooperating Country; those purchased under the grant will be from the United States or the Cooperating Country.

3. Waivers

A sole source waiver is requested to contract with CENAPEC, a Dominican, non-profit, non-governmental organization that will offer a high school equivalency degree to rural school teachers. CENAPEC is the only correspondence school in the country that offers such services and that is recognized by SEEBAC.

E. Evaluation Plan

As discussed in the monitoring plan, project specific baseline data will be collected early in project implementation. Other targets have been established in the project logical framework matrix. Project progress will be measured against these targets.

Regular evaluations will be undertaken to secure information on the continuing validity and relevance of the project. Identification of any deficiencies, irregularities or problems that can lead to unsatisfactory project progress will be obtained through a mid term assessment of both the performance of the various implementing agents. In turn, corrective actions, including reprogramming and necessary changes will be indicated.

The formal evaluation schedule will be as follows:

| | |
|----------------|---|
| September 1984 | Monitoring System/Baseline data collection begins |
| September 1987 | Mid-Term Implementation Evaluation |
| January 1988 | Information System Special Evaluation |
| April 1989 | Final Evaluation |



INCOMING TELEGRAM

American Embassy Santo Domingo

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SUBJECT: PID FOR DOLS 8 MILLION ADD ON TO RURAL EDUCATION
-- PROJECT (517-0119)

1. THE DAEC REVIEWELZJPIKFOGT PID AMENDMENT ON MAY 4, 1984. WHILE AID/W APPROVAL OF THE PROJECT MUST AWAIT REVIEW OF INFORMATION DISNUSSED IN PARA 2 AND 3, THE MISSION MAY, IN THE INTERIM, PROCEED TO PP DEVELOPMENT.

2. DATA ON PROGRESS MADE DURING PIDE I. SINCE THE PROPOSE

ADD-ON WOULD BUILD C AND SUBSTANTIALLY EXTEND THE ACTIVITIES DESIGNED AND IMPLEMENTED UNDER PIDE I, THE DAEC CONCLUDED THAT FURTHER FUNDING SHOULD BE CONDITIONED ON EVIDENCE OF PROGRESS TOWARD ACHIEVING GOALS SET UNDER PIDE I. THESE INDICATORS INCLUDED: (1) AN INCREASE IN THE PRIMARY SCHOOL AGE POPULATION ATTENDING CHOOOL (72 PERCENT TO 90 PERCENT); (2) A REDUCTION IN DROP OUT RATES FOR GRADES 1-4 (40 PERCENT TO 10 PERCENT); (3) A REDUCTION IN REPETITION RATES IN GRADES 1-4 (35 PERCENT TO 15 PERCENT); (5) EDUCATIONAL FACILITIES AVAILABLE TO 90 PERCENT OF THE PRIMARY SCHOOL AGE PCPOPULATION; (6) A 10 PERCENT INCREASE BY 1988 OVER THE 1979 LITERACY RATE; (7) REDUCE OVERAGE ENROLLMENT BY 90 PERCENT.

THE MISSION SHOULD PROVIDE ANY QUANTITATIVE DATA TO INDICATE PROGRESS IN THESE AREAS SINCE PIDE'S INITIATION IN 1979.

DATA COMPARING PIDE ZONES WITH NON-PIDE ZONES WOULD BE PREFERABLE.

3. PROJECT AND RECURRENT COSTS. THE CONCURRENCE OF THE GODR TO PROVIDE PROJECT COUNTERPART AND A SUBSTANTIALLY INCREASED LEVEL OF BUDGETARY RESOURCES TO MEET RECURRENT COST OBLIGATIONS OF STAFFING AND MAINTAINING AN EXPANDED SCHOOL NETWORK IS FUNDAMENTAL TO PROJECT FEASIBILITY. HOWEVER, IN VIEW OF THE GODR'S CURRENT ECONOMIC CRISIS, QUESTIONS WERE RAISED CTNCERNING GODR'S WILLINGNESS AND

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ABILITY TO MEET (A) PROJECT COUNTERPART REQUIREMENTS IN A TIMELY MANNER, AND (B) REQUIREMENTS FOR RECURRENT COSTS, PARTICULARLY FOR SALARIES OF NEW TEACHERS. GIVEN THESE CIRCUMSTANCES, THE BUREAU BELIEVES IT IS IMPORTANT FOR THE MISSION TO SOLICIT THE GODR'S FINANCIAL COUNTERPART COMMITMENT PRIOR TO ADVANCING TO PP DEVELOPMENT, AND TO SUPPORT ANY SUCH COMMITMENT WITH AN ANALYSIS SHOWING REASONABLE PROSPECTS THAT COMMITMENT CAN BE MET. THESE FUNDING REQUIREMENTS SHOULD BE DISCUSSED WITH FINANCE MINISTRY AND/OR STP AS WELL AS SEEBAC. INTER ALIA, (A) WILL SEEBAC BE ABLE TO SUPPORT THE ADDITIONAL PERSONNEL AND MAINTENANCE COSTS REQUIRED AS A RESULT OF BOTH THE AID AND IDB PROJECTS? (B) THE IDB LOAN HAS A COMPONENT IN ITS PROJECT TO CERTIFY TEACHERS. WILL CERTIFIED TEACHERS EARN MORE? IF SO, HOW WILL THIS AFFECT OUR PROJECT'S BUDGET? (C) FINALLY, IF SEEBAC CANNOT COVER THE COMPLETE SALARY COSTS DURING THE LIFE OF OUR PROJECT, THE MISSION SHOULD SERIOUSLY CONSIDER COVERING THE EXCESS COSTS ON A DECLINING SCALE: I.E., 100 PERCENT THE FIRST YEAR; 80 PERCENT THE SECOND, ETC.

4. PROJECT STRATEGY.

--A. RADIO EDUC

ION COMPONENT.

THE MISSION'S REPRESENTATIVE AT THE DAEC INDICATED THAT RADIO EDUCATION IS LESS EXPENSIVE AND OFFERS HIGHER QUALITY INSTRUCTION THAN THE TRADITIONAL RURAL TEACHER. THIS VIEW WAS REINFORCED BY A FILM ON THE RADIO EDUCATION PROJECT IN NICARAGUA AND REPRESENTATIVES OF S AND T/ED. DURING INTENSIVE REVIEW RELATIVE EFFICIENCY OF THIS

ELEMENT VIS ANVIS EXISTING PIDE ALTERNATIVES SHOULD BE ANALYZED IN DETAIL. IF ASSUMPTIONS RE EFFICIENCY OF THIS ELEMENT ARE NOT SUPPORTED, IT SHOULD BE DELETED FROM THE PROJECT. ALTERNATIVELY, IF ANALYSIS SUPPORTS INCLUSION OF RADIO EDUCATION, WE WOULD ANTICIPATE THAT THERE WOULD BE MODIFICATIONS, AND CONSEQUENT SAVINGS, TO THE PIDE MODEL WITH RESPECT TO EACHING OF MATHEMATICS (E.G., THE NEED FOR UPGRADING MATH TEACHERS COULD BE SUBSTANTIALLY REDUCED).

--B. LINKS WITH LOCAL UNIVERSITIES.

AS YOU KNOW, THERE IS A REGIONALLY FUNDED EDUCATIONAL RESEARCH NETWORK PROJECT (REDUC) OPERATING IN THE D.R. OUT OF UCOMM. A COPY OF THE PP FOR THIS PROJECT WAS HANDCARRIED TO MISSION BY MISSION REP. REDUC SHOULD BE CONTACTED AS IT COULD POSSIBLY ASSIST YOU IN COMPILING THE DATA REQUESTED IN PARA 2. IT MIGHT ALSO BE OF SOME ASSISTANCE IN STRUCTURING SEEBAC'S STATISTICS AND RESEARCH DEPARTMENTS.

--C. MONITORING PLAN. IN ORDER TO BUILD UP DATA TO SHOW DEGREE OF PROGRESS IN IMPROVING RURAL EDUCATION THROUGH PIDE APPROACH, MISSION SHOULD DEVELOP APPROPRIATE

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ANNEX A
Page 3 of 6

MONITORING PLAN WHICH WOULD GENERATE DATA ON A TIMELY BASIS FOR FUTURE GULF EDUCATION INVESTMENT PLANNING. THIS WILL BE OF PARTICULAR IMPORTANCE IN THE RADIC EDUCATION AREA.

5. PROJECT FUNDING. WE UNDERSTAND FROM DISCUSSIONS WITH MISSION REP AND PID ISSUE NO. 3 THAT THE BUDGET FOR CONSTRUCTION UNDER THIS PROJECT MAY BE TIGHT. THE APPROACH CONTEMPLATED TO MEET THIS CONSTRAINT, I.E., REDUCING THE 90 PERCENT COVERAGE TARGET, DOES NOT SEEM DESIRABLE. (AS PREFERABLE OPTIONS (SHOULD THEY BECOME NECESSARY):

--PROJECT'S SCOPE COULD BE NARROWED BY THE ELIMINATION OF APPROVINCE. ✓

--CONSTRUCTION COSTS MIGHT BE DECREASED BY: INCREASED COMMUNITY PARTICIPATION; USE OF APPROPRIATE TECHNOLOGY; MORE CLASSROOMS REFURBISHED AS OPPOSED TO NEW CONSTRUCTION. }

MISSION SHOULD PARTICULARLY RESIST FREQUENT RESPONSE BY COOPERATING COUNTRIES TO FUNDING SHORTFALL FOR EDUCATION

PROJECTS, THAT IS, SACRIFICING QUALITATIVE ELEMENTS OF PROJECT.

6. TRV. LAC/DF WILLING TO PROVIDE AN EDUCATION ADVISOR FOR NOT MORE THAN 10 WORKING DAYS. FUNDING FOR THIS TRAVEL AND PER DIEM WOULD BE SPLIT BETWEEN AID/W AND MISSION DE BUDGET. WE SUGGEST THAT THE MISSION CONSIDER USE OF ESP TRUST FUNDS TO OFFSET ANY LOCAL COSTS OF PP DEVELOPMENT THAT WOULD OTHERWISE BE COVERED BY DE BUDGET RESOURCES. Discuss w/1

7. WE REQUEST THAT THE QUANTITATIVE RESULTS OF THE ORIGINAL PIDE AND A RESPONSE TO OUR QUERIES ABOUT GODR'S ABILITY TO PROVIDE COUNTERPART AND RECURRENT FUNDING BE CABLED ASAP AS APPROVAL OF THE SUBJECT PID SUPPLEMENT IS CONTINGENT ON THIS INFORMATION.

8. BUREAU CANNOT GUARANTEE AVAILABILITY OF FY 84 FUNDS FOR THIS PROJECT BEYOND JULY 31, 1984. MISSION URGED TO CRITICALLY ASSESS PROJECT DEVELOPMENT SCHEDULE IN LIGHT OF THE ABOVE GUIDANCE TO DETERMINE IF THAT DEADLINE CAN BE MET. PLEASE ADVISE.

9. NEW PP. THIS PROPOSAL SHOULD BE TREATED AS A NEW PROJECT, NOT AN ADD-ON TO EXISTING PROJECT. THIS WOULD AVOID A LONG LUP WITHOUT REQUIRING EXCESSIVE DOCUMENTATION (ONLY AN ABBREVIATED PP IS REQUIRED FOR FOLLOW-ON PROJECTS. PER HQ 3 CRAP 3 SECTION 3E2, PP SECTIONS MAY BE WAIVED BY AID/W IF THEIR INFORMATION IS AVAILABLE ELSEWHERE.) THE ABBREVIATED PP COULD INCORPORATE BY REFERENCE THESE RELEVANT ANALYSES CONTAINED IN LOAN 032 PP WHICH WOULD STILL BE VALID FOR NEW PROJECT.

10. MISSION IS REMINDED THAT THE PP SHOULD INCLUDE

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ANNEX A
Page 4 of 6

INFORMATION ABOUT THE PROCUREMENT PLAN PROPOSED FOR THIS PROJECT. THE PLAN SHOULD DISCUSS, AMONG OTHER THINGS, THE POTENTIAL INVOLVEMENT OF SMALL BUSINESS AND/OR ECONOMICALLY AND SOCIALLY DISADVANTAGED BUSINESSES, HISTORICAL BLACK COLLEGES AND PRIVATE AND VOLUNTARY ORGANIZATIONS IN ANY PROPOSED DIRECT OR HOST COUNTRY CONTRACTS, GRANTS OR COOPERATIVE AGREEMENTS. SHULTZ

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Department of State

ANNEX A
Page 5 of 6

INCOMING

TELEGRAM

American Embassy Santo Domingo

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R 040007Z AUG 84
FM SECSTATE WASHDC
TO AMEMBASSY SANTO DOMINGO 1533
BT
UNCLAS STATE 229598

REC'D
ACT.
INITIALS

AUG 6 12 28 PM '84

[Handwritten signature]
EDU. STATE
229598

ATDAG

E.O. 12356: N/A

TAGS:

SUBJECT: RURAL EDUCATION PROJECT (517-0119)

REF: (A) STATE 151360, (B) SANTO DOMINGO 5505

1. LAC/DR HAS REVIEWED MISSION ANALYSIS OF PIDE EDUCATION COHORTS (REFTEL B). GIVEN LIMITATIONS IN AVAILABLE DATA. MISSION'S QUANTITATIVE ANALYSES AND INTERPRETATION ARE BEING CONSIDERED AS SUFFICIENT RESPONSE TO THE QUESTION IN REFTEL A, PARA 2.

2. LACK OF AN ADEQUATE DATA BASE AGAIN POINTS OUT NEED TO SUPPORT AND ENHANCE SEEBAC.S CAPABILITIES IN THAT AREA. DAVID SPRAGUE SET/ED HAS VOICED INTEREST IN ASSISTING THE MISSION IN PLANNING AND DEVELOPMENT OF THIS COMPONENT OF THE PROJECT.

3. WHEN MISSION'S RESPONSE TO ADDITIONAL QUESTION IN REF A PARA 3, QUOTE RECURRENT COSTS UNQUOTE IS RECEIVED., BUREAU WILL TRANSMIT DETERMINATION CONCERNING AUTHORITY TO PROCEED TO PP DEVELOPMENT. HOWEVER. MISSION IS REMINDED THAT ALL PROJECTS MUST BE OBLIGATED BY AUG 31. OR FUNDS WILL BE RE-PROGRAMMED.

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Department of State
INCOMING
American Embassy Santo Domingo

ANNEX A
Page 6 of 6

TELEGRAM

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O 102151Z AUG 84
FM SECSTATE WASHDC
TO AMEMBASSY SANTO DOMINGO IMMEDIATE 1658

UNCLAS STATE 236839

IMMEDIATE AUG 13

CRD
~~EDD-2~~
STATE
236839

AIDAC

E.O. 12356: N/A
TAGS:
SUBJECT: RURAL EDUCATION PROJECT

REFERENCES: (A) STATE 151360 (B) SANTO DOMINGO 7218
(C) STATE 229598

1. THE CONTENTS OF THE GODR LETTER OF INTENT AS QUOTED
IN REFTEL B FULFILL THE REQUIREMENTS PRESENTED IN
REFTELS C. MISSION HAS APPROVAL TO AUTHORIZE AND
OBLIGATE FUNDS FOR SUBJECT PROJECT.

2. DAVID SPRAGUE WILL BE RETURNING FROM VACATION ON
AUGUST 20. WE WILL REQUEST THAT HE RESPOND AT THAT TIME
TO YOUR QUERY IN PARAGRAPH 5 OF REFTEL B.

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#6839

| | |
|---------|-------|
| ACTION: | AID 8 |
| INFO: | |
| AMB | / |
| DCM | / |
| POL | |
| SEA | |
| ECON | |
| FCS | |
| CONS | |
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República Dominicana

Secretariado Técnico de la Presidencia

Santo Domingo, D. N.

"AÑO DE LA SUPERACION NACIONAL"

STP # 3058

2 Agosto, 1984

Señor
Philip R. Schwab
Director Agencia para el
Desarrollo Internacional
(AID)
Su Despacho.-

Distinguido señor Director:

Como parte de los esfuerzos que lleva a cabo el Superior Gobierno dirigidos a racionalizar el uso de recursos externos para la ejecución de proyectos de cobertura productiva y social, y, en el entendido de que cada día las disponibilidades financieras se reducen y endurecen, este Secretariado Técnico de la Presidencia, tiene a bien informarle - que es de sumo interés para el gobierno, desarrollar una expansión del Proyecto Integrado Educativo (PIDE II) cuya primera etapa concluirá - próximamente.

El monto tentativo acordado en el proceso de formulación de esta expansión, la cual cuenta con la opinión del equipo técnico de esa Agencia, asciende a US\$20.0 millones, de los cuales US\$6.0 millones serían mediante préstamo, US\$2.0 millones en calidad de donación y RD\$12.0 millones en contrapartida.

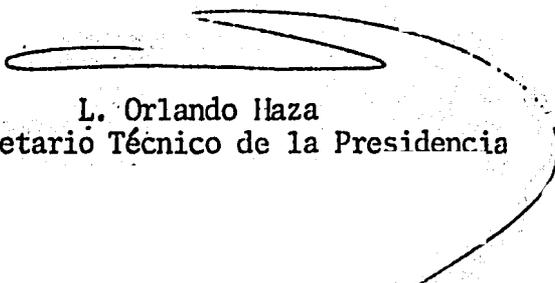
La participación del Gobierno Dominicano en el financiamiento del proyecto presentado sería por el monto de los RD\$12.0 millones de pesos, que se distribuirán en RD\$6.9 millones en sueldos y gastos y RD\$5.1 para el componente construcción. A su vez, incorporará los gastos recurrentes a incurrirse en el proceso de operación del proyecto, tales como profesores y su capacitación, mantenimiento, materiales, cuya suma se estima en unos RD\$1.52 millones anuales, a ser cubiertos a través del Presupuesto Nacional.

Mayores detalles relativos al proyecto, pueden ser observados en el perfil elaborado en base a informaciones suministradas por la Secretaría de Estado de Educación Bellas Artes y Cultos (SEEBAC), institución responsable de la ejecución del proyecto.

. . . / 2

Mucho agradecería la atención que se sirva presentar a esta solicitud, aprovechando la ocasión para reiterarle mis mayores sentimientos de amistad y cooperación.

Muy Atentamente



L. Orlando Haza
Secretario Técnico de la Presidencia

SECRETARIADO TECNICO DE LA PRESIDENCIA
OFICINA NACIONAL DE PLANIFICACION
Departamento de Proyectos

P E R F I L D E P R O Y E C T O

(En Miles de RD\$)

- PROYECTO : Expansión Proyecto Integrado de Desarrollo Educativo (PIDE)
- INSTITUCION EJECUTORA : Secretaría de Estado de Educación (SEEBAC)
- INSTITUCION PRESTAMISTA : A I D
- MONTO DEL PROYECTO : 20,000
- MONTO DEL PRESTAMO : 6,000
- OTROS (DONACION) : 2,000
- LOCALIZACION : Cibao oriental (Sánchez Ramírez, Duarte, Salcedo, María Trinidad Sánchez, Samaná).
- OBJETIVOS : Expandir y dar continuidad a la reforma educativa y ofrecer la educación básica al 90% de los niños en las provincias de Salcedo, Duarte, María T. Sánchez, Samaná y Sánchez Ramírez. Se prevé un fortalecimiento de estadísticas sobre educación, investigación e iniciativa de planeamiento; adies tramiento adicional a maestros, administradores y técnicos, desarrollo de material educativo, y - construcción de dependencias para educación, com pras de equipos e implementación de un plan de - mantenimiento para las escuelas.
- META : - Aumento en la población en edad escolar que - asiste a escuelas primarias((74% a 90%)
- Una reducción de las tasas de estudiantes deser tores en los cursos de 1 - 4 (40% a 10%)
- Una reducción en los promedios de repetición en los cursos del 1 - 4 (35% al 15%).
- Material de instrucción disponible a todos los estudiantes en los cursos del 1 - 4.
- Dependencias educacionales disponibles al 90% de la población en edad de escuela primaria.

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Expansión Proyecto Integrado de Desarrollo Educativo (PIDE).

DESCRIPCION : Construcción de unos 1,977 espacios escolares para aumentar la actual cobertura de acceso de la población en edad escolar que asiste a escuelas primarias de un 65% a un 90%, desglosado de la manera siguiente:
623 aulas nuevas, 180 aulas reemplazadas, y 394 espacios multi-uso /Directores, etc.
Se contempla además, la capacitación de personal, investigación y mantenimiento de planta educativa.

INVERSION La estructura de costo del proyecto es la sigte.

| COMPONENTE | A I D | | GOR. R.D. | T O T A L |
|---------------------------------|--------------|--------------|---------------|---------------|
| | DONACION | PRESTAMO | CONTRAPARTIDA | |
| I. Asistencia Técnica | 1,400 | - | - | 1,400 |
| II. Entrenamiento. | 300 | 1,190 | - | 1,490 |
| III. Materiales y Equipos. | - | 1,030 | - | 1,030 |
| IV. Sueldos | - | - | 6,900 | 6,900 |
| V. Construcción y Mantenimiento | - | 3,780 | 5,100 | 8,880 |
| VI. Evaluación. | 100 | - | - | 100 |
| VII. Imprevistos. | 200 | - | - | 200 |
| T O T A L | 2,000 | 6,000 | 12,000 | 20,000 |

NOTA: Debido a un estimado de construcción de 56,500 M² a un costo de RD\$200.00 / M², se estima un aumento en el componente construcción de \$2,120,000, lo que elevaría el aporte de la contrapartida. Se estudia la posibilidad de que el costo de M² de construcción sea reducido a RD\$160.00/M² y de esa forma, mantener el costo del proyecto en \$20,000,000 aproximadamente.

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5C(2) - PROJECT CHECKLIST

Listed below are statutory criteria applicable generally to projects. This section is divided into two parts. Part A. includes criteria applicable to all projects. Part B. applies to project funded from specific sources only: B.1. applies to all projects funded with Development Assistance Funds, B.2. applies to projects funded with Development Assistance Loans, and B.3. applies to projects funded from ESP.

CROSS REFERENCES:

IS COUNTRY CHECKLIST UP TO DATE?

Yes.

HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

Yes.

A. GENERAL CRITERIA FOR PROJECT

1. FY 82 Appropriation Act Sec. 523; FAA Sec. 634A; Sec. 653(b).

(a) Describe how authorizing and appropriations Committees of Senate and House have been or will be notified concerning the project; (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that amount)?

(a) The project was included in the FY 84 Congressional Presentation as a new project in FY 84. The Congressional notification expired on June 28, 1984.
(b) State 188435 allotted funding to the Mission.

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial, other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

(a) Yes.

(b) Yes.

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

The Project will need to be ratified by the Dominican Congress. In the past AID projects have been ratified in a timely manner.

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4. FAA Sec. 611 (b); FY 1982 Appropriation Act Sec. 501. If for water or water-related land resource construction, has project met the standards and criteria as set forth in the Principles and Standards for Planning Water and Related Land Resources dated October 25, 1973? (See AID Handbook 3 for new guidelines.) Not Applicable.
5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project? Yes.
6. FAA Sec. 209. Is project susceptible of execution as part of regional or multilateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. The Project cannot be executed as part of a regional project.
7. FAA Sec. 601(a). Information and conclusions whether project 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 The project will foster private initiative and competition through the use of private contractors selected using competitive procedures in the construction of educational facilities.



8. FAA Sec. 601 (b). Information and conclusion 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).
- The technical assistance and equipment for the project will be procured from U.S. private sector sources.
9. FAA Sec. 612(b); Sec. 636(h); FY 1982 Appropriation Act Sec. 508. 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.
- The project agreement will require that counterpart contribution be used in the implementation of project activities.
10. 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?
- There is no excess, U.S. owned local currency available for this program.
11. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?
- Yes.
12. FY 1982 Appropriation Act Sec. 522. 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?
- Not Applicable.

13. FAA 118(c) and (d).
Does the project comply with the environmental procedures set forth in AID Regulation 16? Does the project or program take into consideration the problem of the destruction of tropical forests.

Yes.

14. FAA 121(d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (dollars or local currency generated therefrom)?

Not Applicable.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FAA Sec. 102(b); Sec. 111; 113; 281 (a). 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, 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; (b) 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; (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 (e) utilize and encourage regional cooperation by developing countries?

b. FAA Sec. 103, 103A, 104, 105, 106. Does the project fit the criteria for the type of funds (functional account) being used?

The project is directed to the promotion of the participation of the rural poor in the benefits of development. This will be accomplished through the planning and implementation of rural education activities in ten provinces. The resulting gain from this education expansion will include increased income by providing the rural poor with strengthened educational skills, thus increasing employment capabilities; the reliance of this project on community groups and governmental institutions for planning and implementation will encourage rural poor participation at the individual, group and community level. This program is designed to reinforce the concept of community participation. This program will also promote participation of women in educational programs.

Yes.

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c. FAA Sec. 107. Is appropriate emphasis on use of appropriate technology? (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?

Yes.

d. FAA Sec. 110(a). Will the recipient country provide at least 25% 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 been waived for "relatively least-developed" country)?

The recipient country is providing 67% of the total cost of the project.

e. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing, or is the recipient country "relatively least-developed?" (M.O. 1232.1 defined a capital project as "the construction, expansion, equipping or alteration of a physical facility or facilities financed by AID dollar assistance of not less than \$100,000, including related advisory, managerial and training services, and not undertaken as part of a project of a predominantly technical assistance character.

Not Applicable

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f. FAA Sec. 122(b). 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?

Yes.

g. FAA Sec. 281(b). Describe extent to which program 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 civil education and training in skills required for effective participation in governmental processes essential to self-government.

The project directly supports primary education services in rural areas of the Dominican Republic. Through the structured course curriculum Dominican youth learn to understand their role as citizens of the country and to support its democratic system of government.

2. Development Assistance Project
Criteria (Loans Only)

a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan, at a reasonable rate of interest.

The Dominican Government is not in default on any AID loans and appears capable to repay the proposed loan.

b. 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% of the enterprise's annual production during the life of the loan?

Not Applicable.

3. Economic Support Fund
Project Criteria

a. FAA Sec. 531(a). Will this assistance promote economic or political stability? To the extent possible, does it reflect the policy directions of section 102? **Yes.**

b. FAA Sec. 531 (c). Will assistance under this chapter be used for military, or paramilitary activities? **No.**

c. FAA Sec. 534. Will ESF funds be used to finance the construction of the operation or maintenance of, or the supplying of fuel for, a nuclear facility? If so, has the President certified that such use of funds is indispensable to nonproliferation objectives. **Not Applicable.**

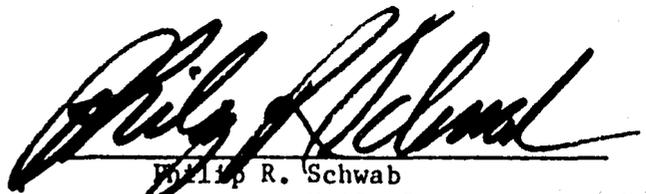
d. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements be made? **Not Applicable.**

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CERTIFICATION PURSUANT TO
Section 611 (e) of the
FOREIGN ASSISTANCE ACT
As Amended

I, Philip R. Schwab, the principal officer of the Agency for International Development in the Dominican Republic, do herewith certify that in my judgment, the Dominican Republic has both the financial capability and human resources to maintain and utilize effectively goods and services procured under the capital assistance project entitled Rural Education Expansion.

This judgment is based upon the record of implementation of AID financed projects in the Dominican Republic and the results of the consultations undertaken during intensive review of this new project.


Philip R. Schwab
Director, USAID Dominican Republic

AUG. 31 1984

Date

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INITIAL ENVIRONMENTAL EXAMINATION

Project Location: Dominican Republic

Project Title: Education Sector Loan

Funding: FY 1984, (\$6,000,000 loan \$2,000,000 grant)

Life of Project: Five years.

IEE Prepared by: William H. Smith, Mission Engineer

William H. Smith

Date: August 21, 1984.

Environmental Action Recommended: Negative Determination

Concurrence: Philip R. Schwarz, Director, USAID/DR

Philip R. Schwarz

Date AUG. 31 1984

I. EXAMINATION OF NATURE, SCOPE, AND MAGNITUDE OF ENVIRONMENTAL IMPACTS

The major impact of the project will be cultural. Education continues to be valued by the rural population to be served under this project, and all indications suggest that higher levels of education attainment lead to higher income and better quality of life. Rural schools typically have large numbers of average students and students who spend up to six years in school to successfully complete three years. The latter is often the result of lack of opportunity to attend schools which offer all six years of elementary instructions. Improvements in access to more years of elementary school, and raising the quality of instruction are expected to reduce education wastage (repeated dropouts, and repeaters of grades) and to increase the number of children who successfully advance.

Construction to be financed under the loan will be for new classrooms and for classroom additions to existing school facilities all or which will be located in already populated rural areas. The total amount of land to be used as construction sites is small and will not come at the cost of crop lands.

II. RECOMMENDATIONS FOR ENVIRONMENTAL ACTION

The proposed project is not an action which will have a significant impact on the human or natural environment of the Dominican Republic. It is recommended that the Mission Director approve a Negative Determination for this project.

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IMPACT IDENTIFICATION AND EVALUATION FORM

Impact
Identification
and 1/
Evaluation

Impact Areas and Sub-areas

A. LAND USE

1. Changing the character of the land through:

- | | |
|--|----------|
| a. Increasing the Population | <u>N</u> |
| b. Extracting Natural Resources | <u>N</u> |
| c. Land Clearing | <u>N</u> |
| d. Changing Soil Productive Capacity | <u>N</u> |
| 2. Altering Natural Defenses | <u>N</u> |
| 3. Foreclosing Important Uses | <u>N</u> |
| 4. Jeopardizing Man or His Works | <u>N</u> |

B. WATER QUALITY

- | | |
|---|----------|
| 1. Physical State of Water | <u>N</u> |
| 2. Chemical and Biological States | <u>N</u> |
| 3. Ecological Balance | <u>N</u> |

C. ATMOSPHERIC

- | | |
|------------------------------|----------|
| 1. Air Additives | <u>N</u> |
| 2. Air Pollution | <u>N</u> |
| 3. Noise Pollution | <u>N</u> |

D. NATURAL RESOURCES

- | | |
|--|----------|
| 1. Diversion, Altered Use of Water | <u>N</u> |
| 2. Irreversible, Inefficient Commitments | <u>N</u> |

E. CULTURAL

- | | |
|--|----------|
| 1. Altering Physical Symbols | <u>N</u> |
| 2. Change of Cultural Traditions | <u>N</u> |

1/ N - No environmental impact.
L - Little environmental impact.
M - Moderate environmental impact
H - High environmental impact.
U - Unknown environmental impact.

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F. HEALTH

- 1. Changing a Natural Environment N
- 2. Eliminating an Ecosystem Element N

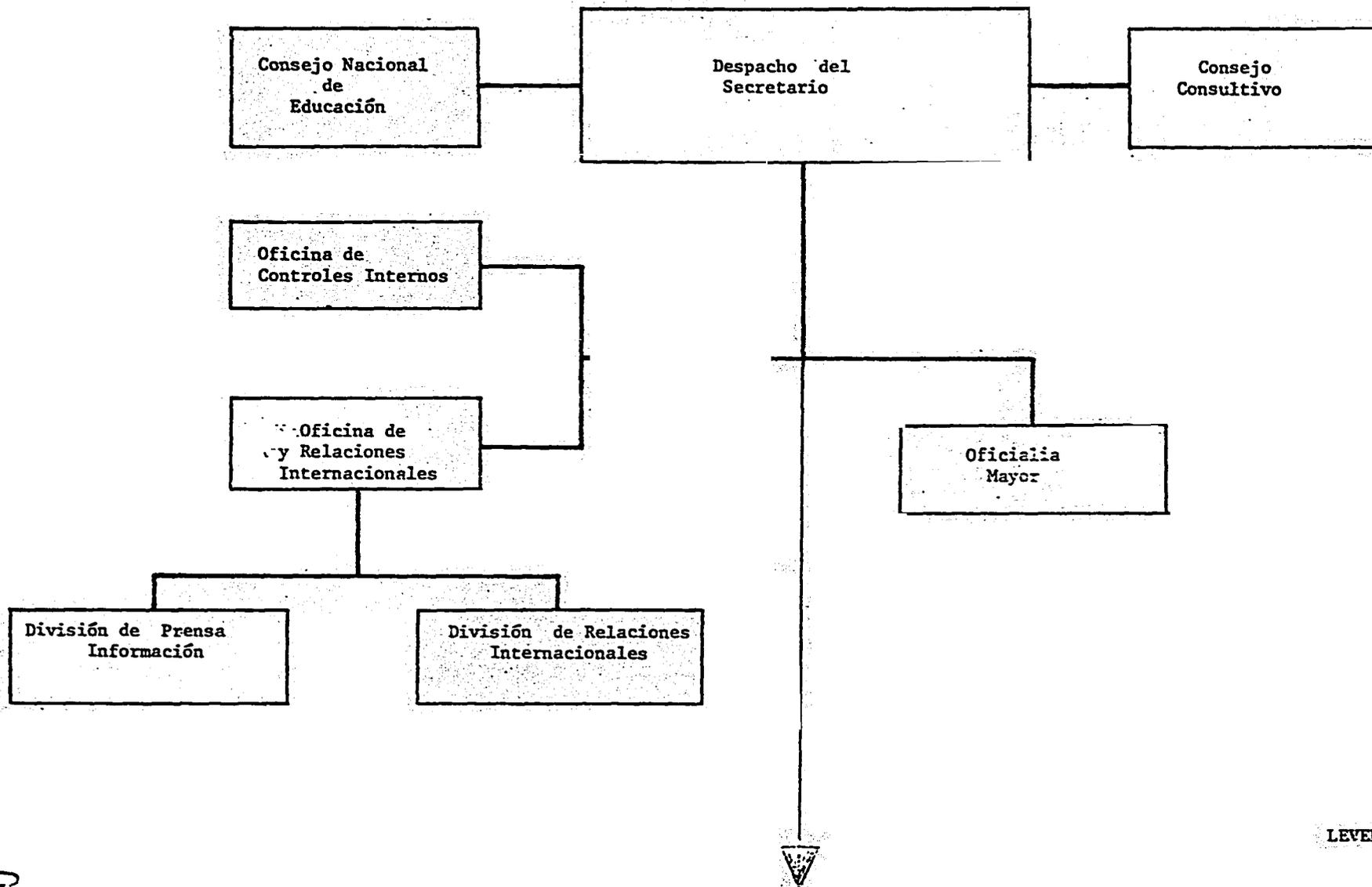
G. GENERAL

- 1. International Impacts N
- 2. Controversial Impacts N
- 3. Larger Program Impacts N

| GENERAL PURPOSES/EXPANSION | VERIFIABLE INDICATORS | MEANS OF VERIFICATION | IMPORTANT ASSUMPTIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|--------|-----|-------|---|---|-------|---|-------|-----|-----|---|---|-------|---|-------|---|---|-------|---|---|---|-------|-------|-------|---|---|-------|--------|-----|---|---|---|-----|-----|-----|---|---|-----|-------|-------|--------|---|--------|---|--|
| <p>GENERAL PURPOSES Purpose of the project: the major objective to which this project contributes: Improve the quality and quantity of educational services available to Dominicans.</p> | <p>MEASURE OF GOAL ACHIEVEMENT: 1. An increase in the Primary School Age Population enrolled in PIDE I and PIDE II areas, (63% to 90%). 2. Increase in promotion rate to 5th grade by 20% to 500,000. 3. Instructional materials available to all students in grades 1-4. 4. Increase in SERBAC's admin. and supervisory capabilities.</p> | <p>1. SERBAC annual statistics report. 2. SERBAC annual statistics report. 3. SERBAC annual statistics report. 4. Follow-up Studies 5. SERBAC annual statistics report. 6. TA contractor reports and eval-</p> | <p>ASSUMPTIONS FOR ACHIEVING GOAL TARGETS: 1. The GOB is philosophically committed to continuing and expanding the reform policy. 2. Financial resources will be made available. 3. Continued political, social and economic stability.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Project Purpose: To continue and strengthen the education reform initiative and to expand the geographic zone of the Project to provide basic education services to all Dominican children in the rural areas of the provinces of Salcedo, Duarte, Maria Trinidad Sanchez, Sanana and Sanchez Ramirez.</p> | <p>Conditions that will indicate: 1. A planning, information and statistics system functioning in SERBAC. 2. Teachers trained or retrained in use of reform curriculum materials plus, radio math, and entrepreneurial skills, in the target provinces. 3. Secretariat, regional, district, and nuclear level admin. 4. Existing and newly developed teaching materials and teachers' guides being utilized in the target provinces. 5. Physical facilities, at least through grade 4, available to rural Dominican children in the target provinces. 6. A system of school maintenance functioning in the target provinces. 7. Schools equipped to implement the education reform in the target prov.</p> | <p>1. Annual statistics and project reports. 2. Annual statistics and project reports. 3. Project reports. 4. Project reports. 5. Project reports. 6. Project reports. 7. Project reports.</p> | <p>Assumptions for achieving purpose: 1. The GOB will provide financial & personnel resources to implement the project. 2. Required instructional materials are developed, produced and distributed. 3. Administrative and teaching personnel are willing to carry out core functions with little or no extra salary increments. 4. Parents are committed and are willing to participate in school activities.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Outputs: A. New PIDE Area 1. Classrooms a. constructed b. rehabilitated 2. Ancillary spaces a. constructed 3. Nucleus equipped teaching materials/office B. Reformed Curriculum 1. Teachers trained a. PIDE I area b. PIDE II area 2. Administrators/technicians 3. Secretaries 4. Parent Group multipliers C. Information Systems 1. Offices Equipped 2. Technicians Trained a. Off-shore b. In-country 3. Reports and studies published D. Radio-mathematics 1. Teachers trained 2. Office equipped</p> | <p>Magnitude of Output A. 1. a. 503 b. 2. a. 343 b. 90 B. 1. a. 3,500 b. 1,900 2. 1,000 3. 45 4. 180 C. 1. 4 2. a. 3 b. 30 3. 25 D. 1. 19,800 2. 1</p> | <p>USAID/SERBAC Project Records</p> | <p>Assumptions for achieving outputs: 1. Construction materials available at estimated costs. 2. Qualified teachers and technicians available. 3. Tech. assistance available on a timely basis. 4. Candidates available for training programs.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Inputs: I. Technical Assistance II. Training III. Commodities IV. Salaries V. Const./Maint. VI. Evaluation/monitoring VII. Contingencies Total</p> | <p>Implementation Target (Type & Quantity 000's)</p> <table border="1"> <thead> <tr> <th></th> <th>I</th> <th>E</th> <th>CFI</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>-</td> <td>1,150</td> <td>-</td> <td>1,150</td> </tr> <tr> <td>400</td> <td>927</td> <td>-</td> <td>-</td> <td>1,327</td> </tr> <tr> <td>-</td> <td>1,358</td> <td>-</td> <td>-</td> <td>1,358</td> </tr> <tr> <td>-</td> <td>-</td> <td>-</td> <td>6,900</td> <td>6,900</td> </tr> <tr> <td>3,000</td> <td>-</td> <td>-</td> <td>9,380</td> <td>12,380</td> </tr> <tr> <td>200</td> <td>-</td> <td>-</td> <td>-</td> <td>200</td> </tr> <tr> <td>720</td> <td>250</td> <td>-</td> <td>-</td> <td>970</td> </tr> <tr> <td>4,220</td> <td>3,680</td> <td>16,280</td> <td>-</td> <td>24,280</td> </tr> </tbody> </table> | | I | E | CFI | Total | - | - | 1,150 | - | 1,150 | 400 | 927 | - | - | 1,327 | - | 1,358 | - | - | 1,358 | - | - | - | 6,900 | 6,900 | 3,000 | - | - | 9,380 | 12,380 | 200 | - | - | - | 200 | 720 | 250 | - | - | 970 | 4,220 | 3,680 | 16,280 | - | 24,280 | <p>Contractor Reports SERBAC/AID Inputs</p> | <p>Assumption for providing inputs: 1. Technical Assistance available 2. AID funding available.</p> |
| | I | E | CFI | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | - | 1,150 | - | 1,150 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 400 | 927 | - | - | 1,327 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | 1,358 | - | - | 1,358 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | - | - | 6,900 | 6,900 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3,000 | - | - | 9,380 | 12,380 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 200 | - | - | - | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 720 | 250 | - | - | 970 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4,220 | 3,680 | 16,280 | - | 24,280 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

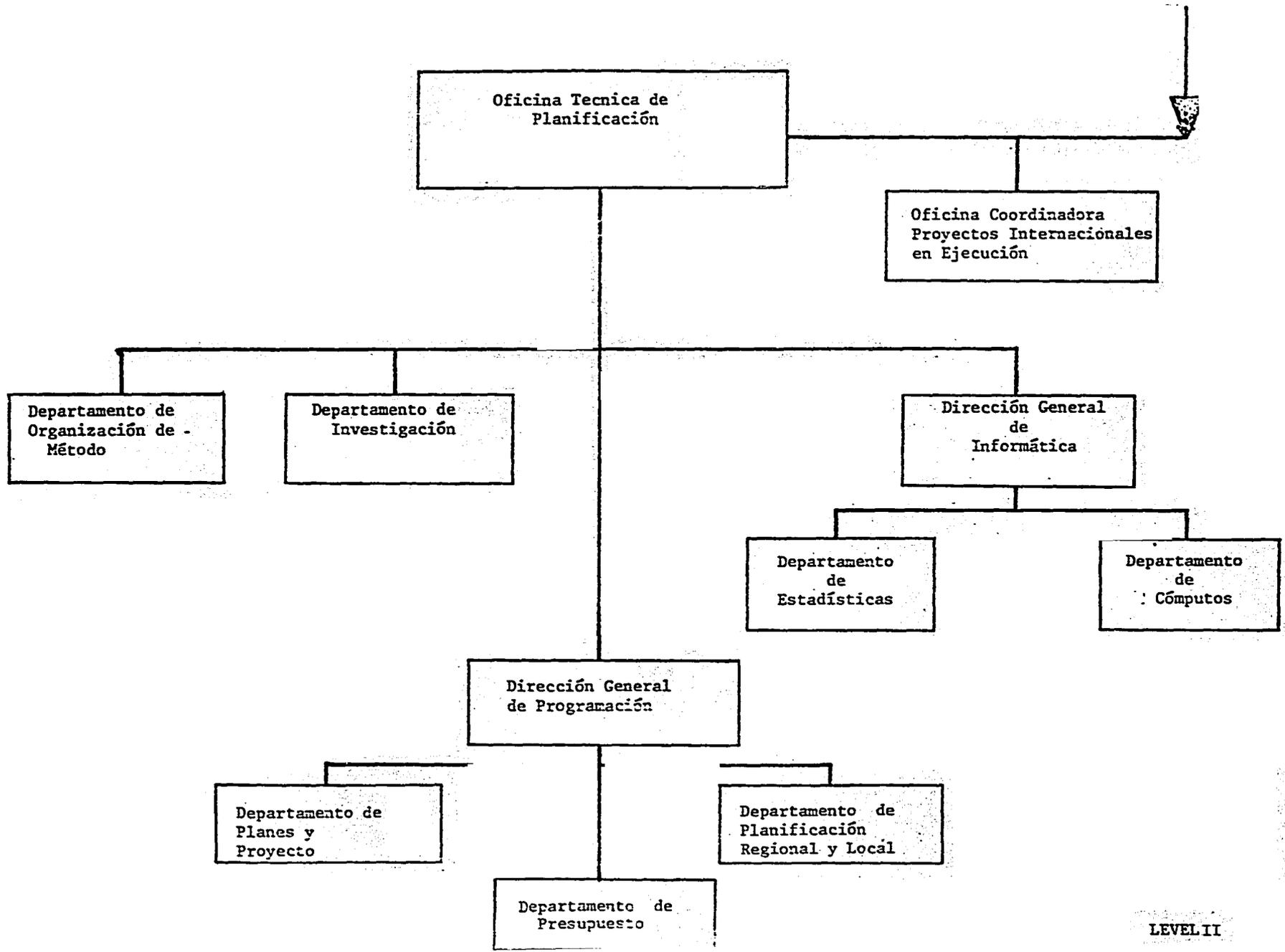
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ORGANIGRAMA DE LA SECRETARIA DE ESTADO DE EDUCACION Y LAS ARTES Y CULTOS (SEEBAC)



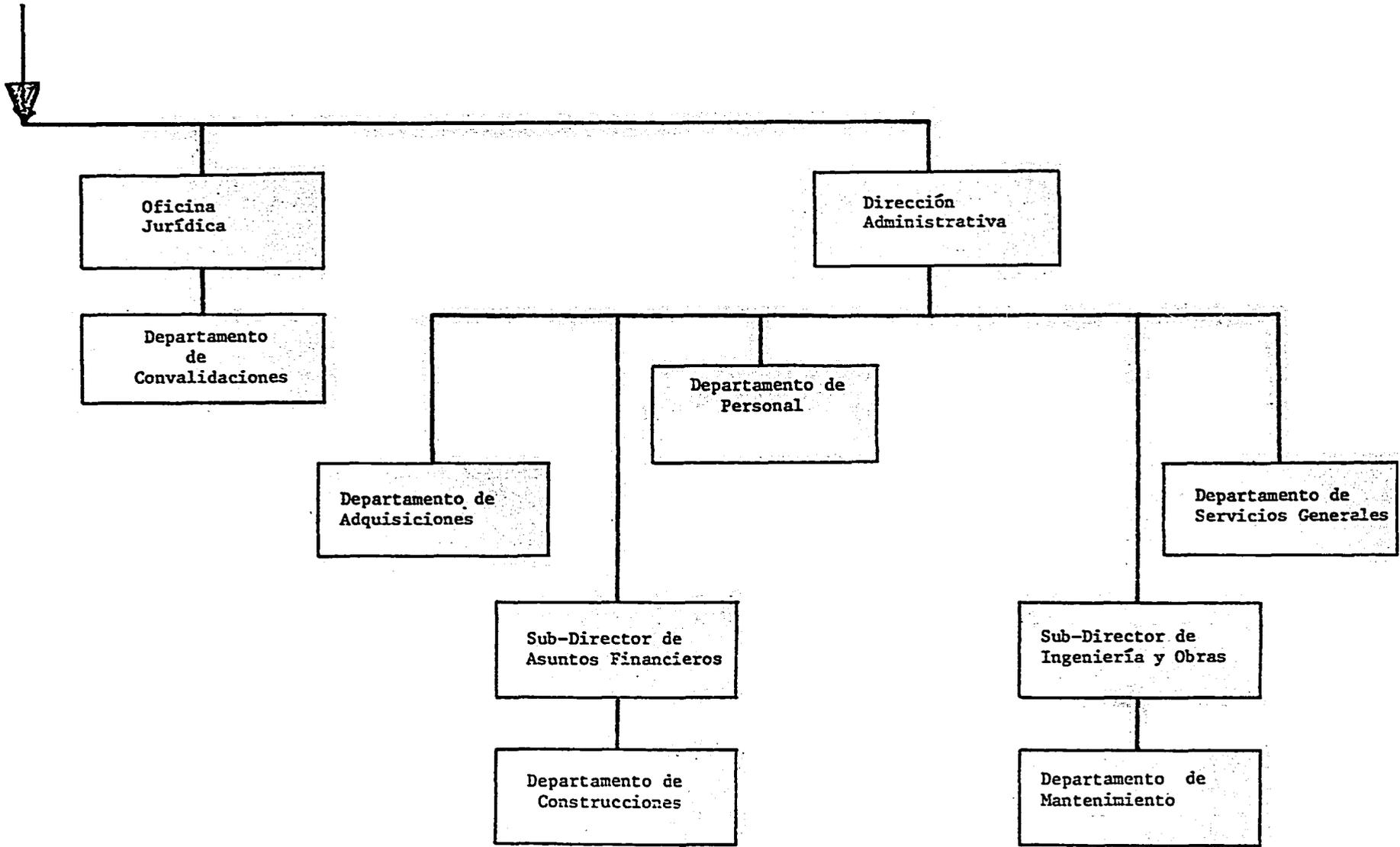
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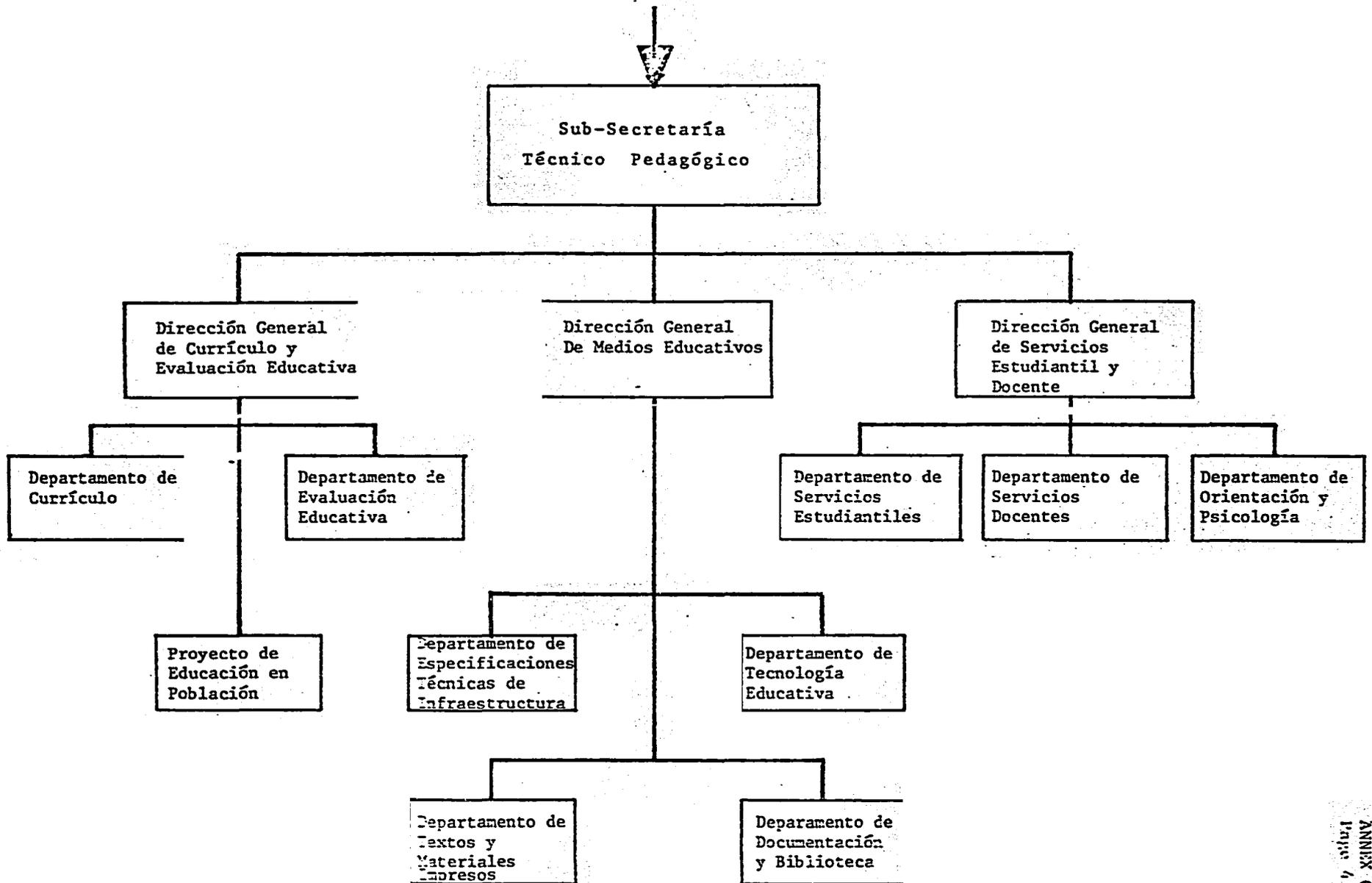
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LEVEL II

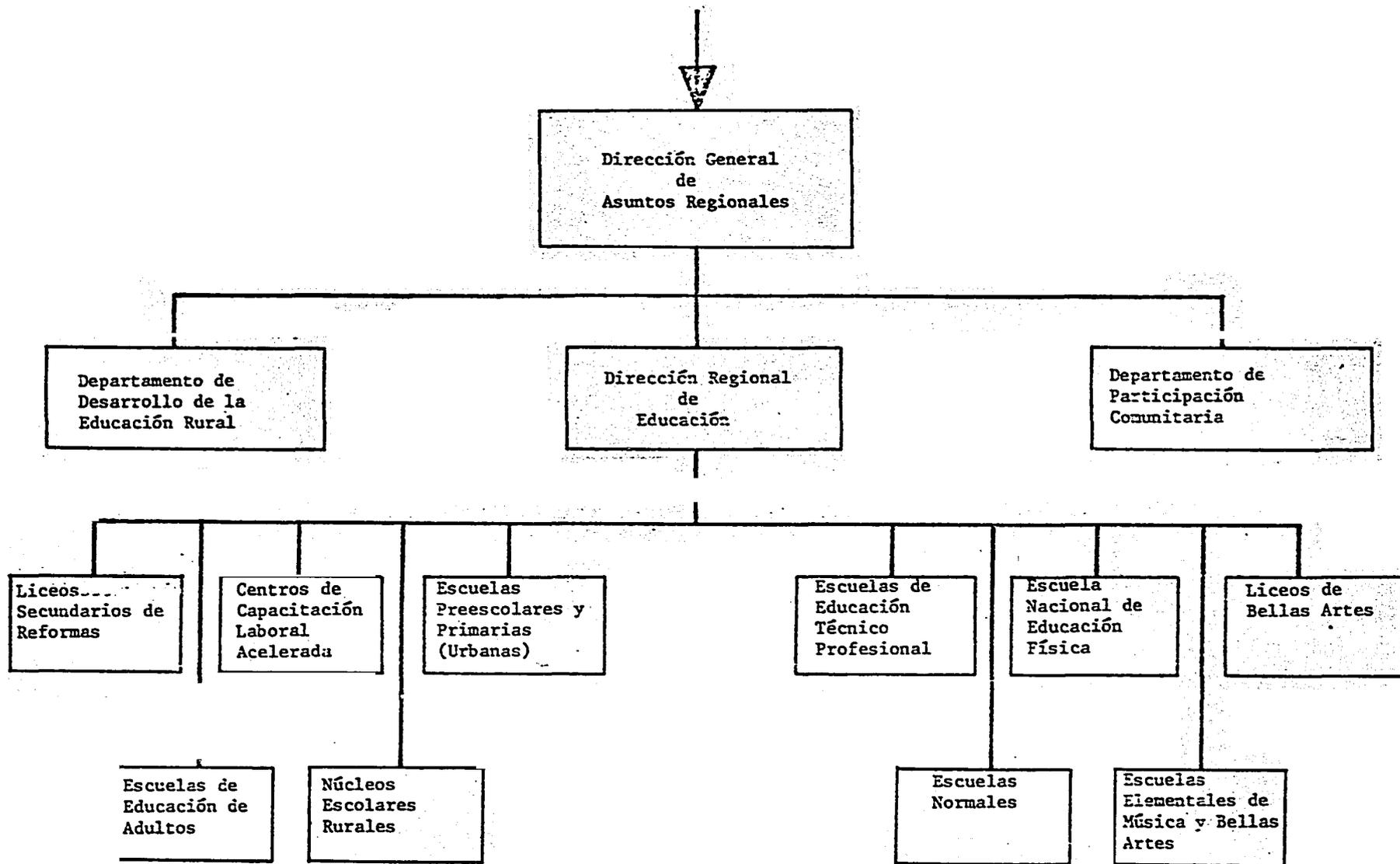
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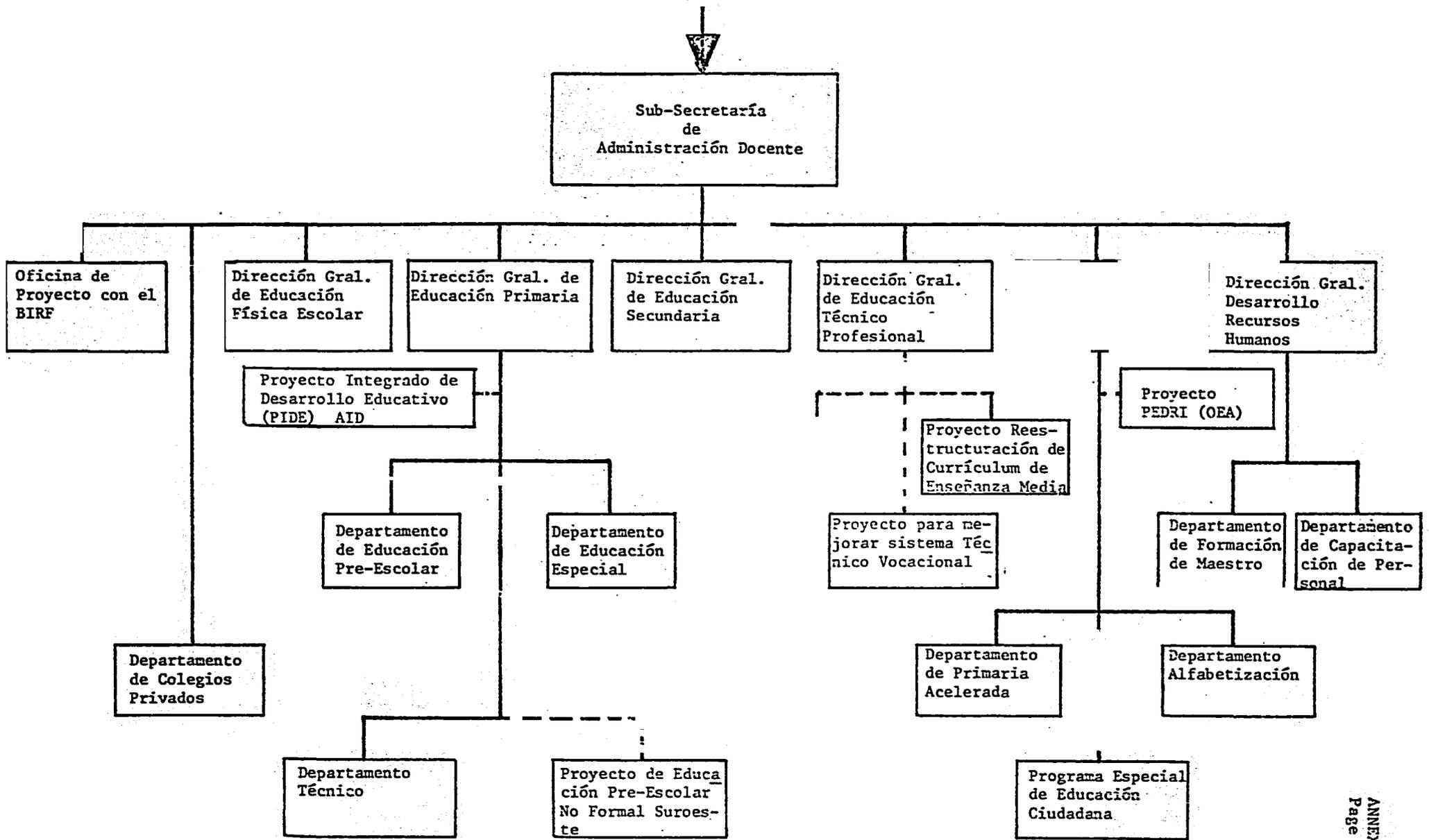
LEVEL III

ANNEX C
Page 4 of 8

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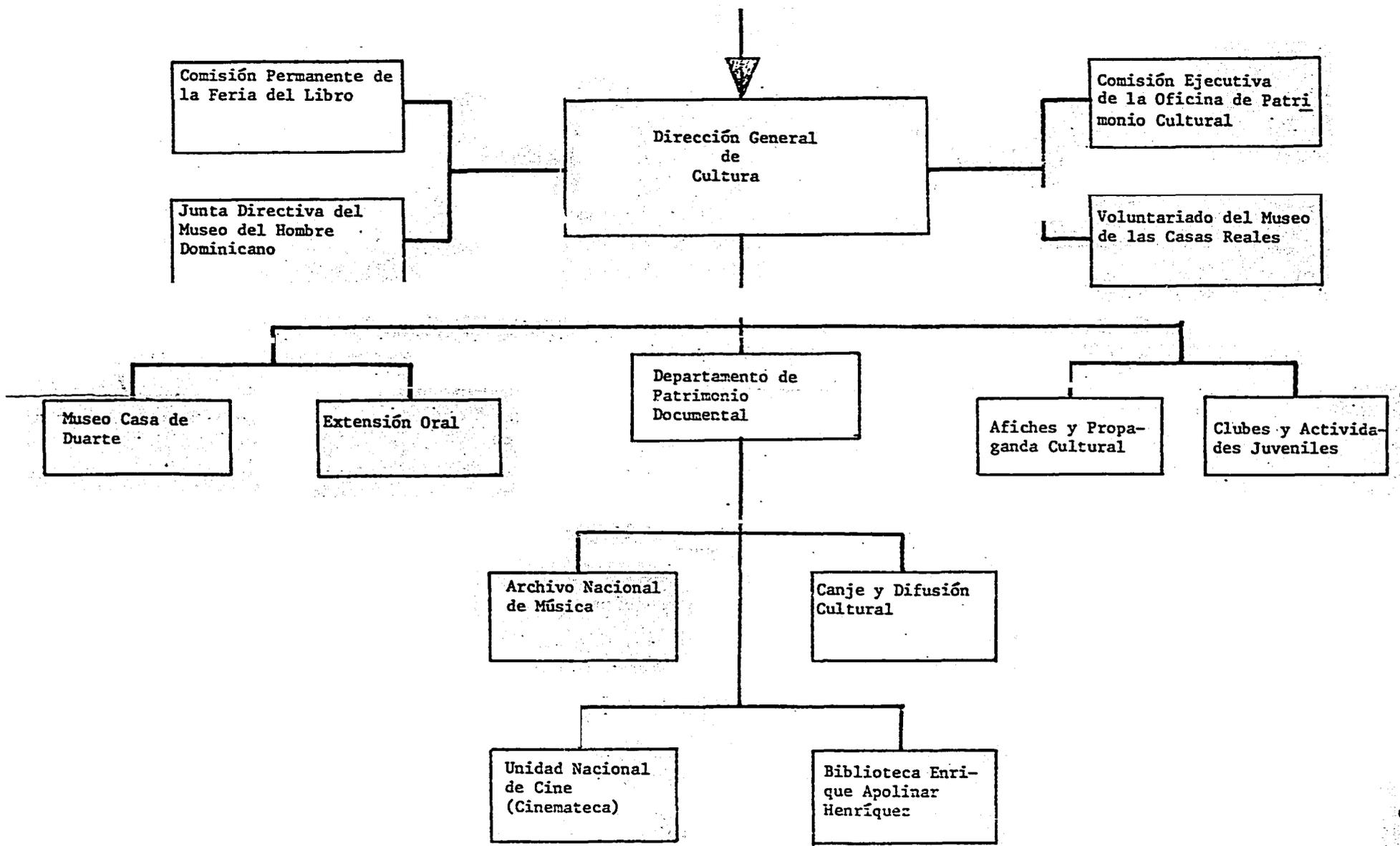


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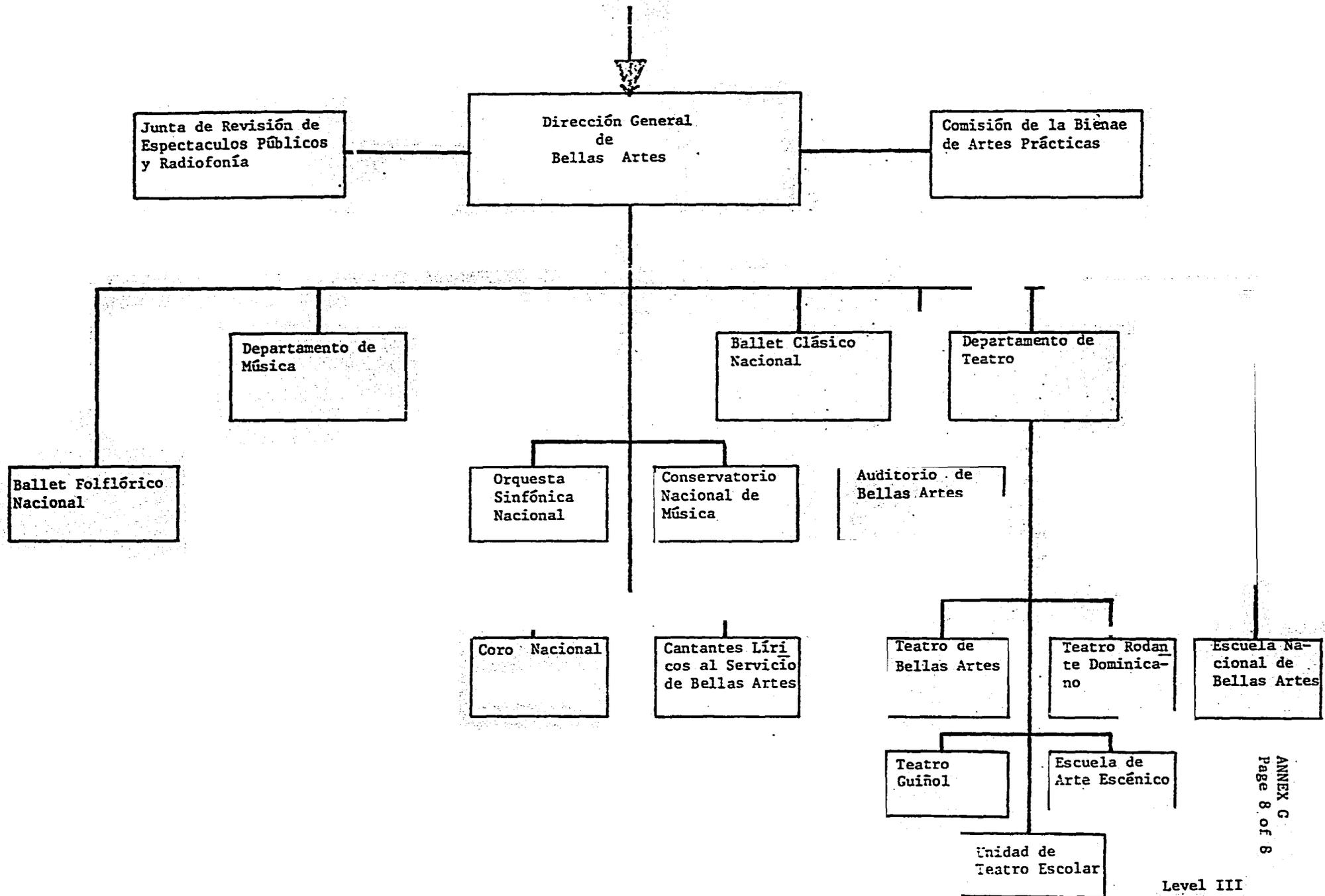
LEVEL III

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91

LEVEL III



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Construction Information

The design of the Construction Component is essentially a replication of the successful school construction activities begun under PIDE I. The basic difference will be that more emphasis will be placed on the use of voluntary labor from parent groups in an effort to, inter alia, save costs.

PIDE II will build a total of 803 classrooms and 343 ancillary facilities (i.e., workshops, offices, pantries, etc.), 87 of which will be facilities on existing sites, in 390 communities in the provinces of the Cibao Oriental. One hundred and eighty of the classrooms and 55 ancillary facilities of different types will be annexes to existing schools. The project now allocates 51.7 square meters for a 40 student classroom, specifies multipurpose spaces of 90 square meters for schools up to 6 classrooms and 108 square meters for larger schools. The five types of ancillary facilities of different areas are composed of multipurpose spaces (137.5 square meters) kitchen/pantry areas (96.5 square meters), library spaces (122.0 square meters), directors' offices (70.3 square meters) and workshop classrooms (15.5 square meters).

School facility preliminary designs and estimates were prepared by experienced architects/engineers contracted by SEEBAC for that purpose. Those plans follow, with slight modifications, the plans used by SEEBAC in the initial PIDE program, introducing improvements gained from that previous experience and modifications to comply with GODR earthquake design regulations.

Buildings are one story in height with a relatively small rectangular and regular floor plan. The foundations and walls are designed to accommodate a second story to meet future demand. At most sites, new designs will consist of a concrete slab floor over selected material, reinforced concrete block masonry walls on concrete foundation, and steel trusses supporting galvanized steel corrugated roofing. According to a construction evaluation under PIDE I, these materials and designs were determined to be satisfactory. In some instances, due to proximity to sea and salt air, the steel trusses and the galvanized steel corrugated roofing will be changed to wood trusses with asbestos cement roofing. Also, about 10% of the new projects will be located in swampy areas where a special type of foundation is needed. In such areas a river-run gravel bed will replace the original ground beneath the

foundation. Windows will be of the adjustable aluminum louver type, and doors will be wood. Latrines for boys and girls will be located on site but separate from the school building. All construction materials, however, are available from the Dominican Republic.

The construction activity itself will be completed in approximately one year's time after IFBs are released. There are two reasons for accelerating the implementation of this activity: (1) it allows SEEBAC more time to focus on the qualitative educational components which directly affects a child's education and (2) it saves on the construction costs, which because of inflationary prices in materials and supplies, could drastically change projected construction costs.

The vast majority of all construction services will be procured using a modified version of the FAR contracting procedures known as the sorteo (lottery) system.* This system uses private sector prequalified contractors to perform the construction with close supervision by the PIDE Construction Division composed of a coordinator and a team of civil engineers. Under this system, the contractor agrees to build the projects in a group at a fixed amount determined by the PIDE Construction Division, according to the bidding documents.

The construction activity has been divided in two phases: planning and preparation, and actual construction.

a. Planning and Preparation Phase

During the preparation phase, four initial tasks will be carried out. These include detailed field investigations; the updating of existing plans, specifications and cost estimates; the preparation of bid documents; and the legalization of sites.

The PIDE Construction Division will conduct the field investigations. They will work closely with the District Directors whose responsibility it will be to familiarize the engineers with the sites identified under a previous SEEBAC study of classroom needs. The investigations and final site selection will be based on predetermined selection criteria which include adequacy of soil foundation; type of terrain (i.e., not subject to flooding); and availability of sufficient space for the facility plus play areas and gardens.

After all the field data have been collected, the next task will be to classify the construction to reflect potential implementation problems discovered during the site investigation. The sites selected will thus be grouped by degree of difficulty to activate. The construction costs and level of effort will be determined by group which in turn will affect when the actual construction will take place.

* Under certain circumstances, force account methods may be used to construct school facilities.

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It is estimated that there will be three different groups according to which all the construction will be classified. The first group will be composed of the easiest projects; i.e., the ones without problems of land title, access roads, land leveling, soil foundation problems, etc. The rehabilitation of existing schools will be included in the second or third group. To the extent possible, construction activities will also be grouped according to geographic zone. After the initial group has been identified, a technical team composed of legal advisors, surveyors and architects will work with the engineers to prepare the site and location plans as well as legal documents.

When classification has been accomplished, the succeeding steps of the planning phase will then be carried out, concurrently whenever possible, i.e., model contracts prepared, plans and specifications revised to account for any modification in PIDE space requirements and newly enacted GODR regulations for earthquake resistance designs, cost estimates finalized and construction firms, supervisory engineers and architects prequalified.

Prequalification documents will be prepared for field supervisors and prospective contractors under the direction of the PIDE construction coordinator. Once the documents are final, PIDE will advertise locally to request curriculum vitae for contractors and supervisors. A bidding commission will be established and be responsible for the examination of all documents and make the final prequalification decisions. AID maintains approval rights over prequalification documents and final selection of contractors and supervisors.

b. Construction Phase

Once the preliminary planning work is completed and the construction supervisors are on-board, the construction phase starts. By this time all plans, specifications, cost estimates and other contract documents for the first group will have been completed and approved by AID. Prequalified contractors will be given the opportunity to examine the bidding documents to select the groups of construction activities in which they want to participate as contractors. The sorteo, held on a predetermined date, is conducted by a SEEBAC committee made up of a cross section of educators and technicians plus a legal representative. An AID representative will be present at the sorteo.

The PIDE Engineering Division will be moved during construction to a town conveniently situated near the construction sites. The PIDE construction supervisors and other staff, as required, will live in that town during construction activities. The office can be moved as appropriate to changing work locations but will maintain radio communication with the central PIDE staff.

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The field office will:

1. Supervise all school construction.
2. Make decisions related to all technical details.
3. Prepare all work measurements and issue all change orders.
4. Coordinate all the activities related to land titling and surveying of sites not done in preliminary stage.
5. Supervise all work done with community assistance.
6. Ensure the orderly and timely advance of the construction projects.

The main PIDE office in Santo Domingo will supply accounting support and when necessary will transfer specialized personnel to the field office to assist in the process of making progress reports and payments.

The construction of any group of projects is estimated to take from three to four months. After processing and releasing the first group of projects, the field office will start immediately with the preparation of plans, specifications and cost estimates of the second group. Concurrent to the preparation of documents for the next group, the field office will execute, or direct the execution of, whatever additional work is necessary which is not included as part of the contractor's obligation such as site leveling and compaction or improvement of access roads. Efforts will be made to coordinate PIDE activities with the AID Rural Roads Project (517-0177) particularly whenever there are access problems.

Maintenance under the Project is considered a counterpart responsibility for the GODR and the community. The booklet published by SEEBAC under PIDE I and entitled, Manual para Mantenimiento y Reparación de Escuelas, describes the implementation process to be used for this important activity. Portions of this manual are included herewith. Responsibility for the maintenance program falls to the Núcleo Director with requirement for community participation through the Society of Parents and Friends of the School. Typical maintenance activities would include clearing of the grounds, cleaning, pantry, minor carpentry work, fence repair and other minor work.

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CUADRO No. 1:

PROGRAMA DE RECONOCIMIENTO A SOLARES
EXPANSIÓN P.I.D.E.

No. DE SOLARES A VISITAR POR PROVINCIAS

| C A R G O | SANCHEZ RAMIREZ (COTUI) | SALCEDO | DUARTE (S.F.M.) | MARIA TRINIDAD SANCHEZ (NAGUA) | SAMANA | SUB TOTALES SOLARES | DIAS REQUERIDOS VISITAS | DIAS INFORMES | TOTAL SEMANAS |
|-----------------------------|-------------------------------|------------|--------------------|---|--------|---------------------------|-------------------------------|------------------|------------------|
| ING. ANGEL SAN REYES | | SUPERVISOR | | GENERAL | | - | 18 | - | - |
| ING. JUAN DE JS. OZUNA BAEZ | - | - | - | 96 | 17 | 113 | 28 | 14 | 7 |
| TECN. ING. ANTONIO LEFLER | - | 40 | 44 | - | 27 | 111 | 28 | 14 | 7 |
| TECN. ARQ. OCTAVIO MEJIA | 55 | - | - | - | - | 55 | 18 | - | - |
| TECN. ING. ALFREDO BELTRAN | - | - | 84 | - | 27 | 111 | 28 | 14 | 7 |
| T O T A L E S | 55 | 40 | 128 | 96 | 71 | 390 | 116 | - | - |

ASR

EXPANSION PROYECTO INTEGRAL DE DESARROLLO EDUCATIVO

ESCUELA _____ NUCLEO # _____ PROVINCIA _____

PAG. 5/

- 1.- Marque en θ cómo es el camino 15 kms. antes de llegar al solar (aproximadamente).
 - Carretera () - Camino vecinal () - Camino vecinal en mal estado () - No hay acceso para vehículo () - Hay acceso sólo para camioneta ó jeep de doble diferencial, pero no para volteos ()
 - A caballo () - A pié () - El camino es una trocha ()
- 2.- Existen en el camino de acceso pendientes fuertes que mermarían la carga máxima de un camión volteo?
 - Sí () - No ()
- 3.- Hay posibilidades de enchivarse los vehículos en tiempo de lluvias?
 - Sí () - No ()
- 4.- Existen pendientes que se podrían resbalosas en tiempo de lluvias? Especifique. - Sí () - No ()
- 5.- Hay agua disponible para construcción próximo al solar? - Sí ()
 - No () - A qué distancia? _____ mts.
- 6.- Cómo sería su acarreo? - Vehículo () - Caballo () - A pié ()
- 7.- Hay material granular disponible próximo al solar? - Sí () - No ()
 - A qué distancia? _____ mts.
- 8.- Cómo sería su acarreo?
 - Volteo () - Camioneta () - A caballo ()
 - Otro, especifique _____
- 9.- Observaciones: _____

DATOS DEL SOLAR

- 1.- Cuántas tareas hábiles para patio, huerto y construcción tiene este solar aproximadamente? _____ m² = _____ tareas
- 2.- Cabrían el ó los pabellones que se proyectan construir?
 - Sí con bastante patio () - Sí pero con poco patio ()
 - No caben ()
- 3.- Considera que el área de construcción es suficiente para lo que se proyecta construir? - Sí () - No ()
- 4.- Cómo es la superficie del solar? - Llano () - Irregular ()
- 5.- Existe alguna depresión muy fuerte en el solar? - Sí () - No ()
- 6.- Existe alguna colina ó montaña muy próxima al solar? - Sí () - No ()
- 7.- Existe alguna línea de alta tensión próxima al solar? - Sí ()
 - No () - A cuántos mts. () - Está sobre el solar? ()
- 8.- Existe alguna industria a menos de 200 mts.? - Sí () - No ()
 - Qué tipo de industria? _____
- 9.- Existe alguna zona pantanosa, próximo ó dentro del solar?
 - Sí () - No () - A cuántos metros? _____

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- 4.- De qué viven básicamente los moradores de esta comunidad?
Fuentes de ingresos: - Café () - Cacao ()
- Frutos menores () - Pesca () - Otros _____
- 5.- Existe en esta zona otra comunidad que no esté en nuestra lista y que necesite construcción? - Sí () - No () - ¿Cómo se llama? _____

- 6.- Tienen su solar? - Sí () - No () - Cuántas tareas? _____
- 7.- Observaciones _____

VERIFICACION PARA DISPONIBILIDAD DEL SOLAR

- 1.- Quién ha donado el solar?
- Privado () - Comunidad () - El Estado ()
a) Tiene título? - Sí () - No ()

DECLARACION:

"NOSOTROS LOS QUE SUSCRIBIMOS Y FIRAMOS ABAJO, DAMOS FE Y TESTIMONIO DE QUE EL SOLAR QUE ACABAMOS DE MOSTRAR HOY DIA _____, AL SR. _____, ENVIADO POR EL DIFE-SEEBAC (SECRETARIA DE ESTADO DE EDUCACION, BELLAS ARTES Y CULTOS), NO TIENE NI ARRASTRA NINGUN PAGO NI RECLAMO CUALQUIERA QUE IMPIDAN TRASPASARLO A LA SEEBAC Y EN EL CASO DE QUE APARECIERE ALGUN RECLAMO QUE HASTA AHORA DESOCCUREMOS, NOS HACEMOS RESPONSABLES DE LOS MISMOS, DESCARGANDO EN ABSOLUTO AL DIFE-SEEBAC Y AL COMITADISTA SIN CON ELLO SACRIFICAR PARTE DE LOS TERRENOS QUE ACABAMOS DE MOSTRAR. EN CONCLUSION DAMOS FE DE QUE DICHO SOLAR NO TIENE PROBLEMA PARA SER DONADO.

FIRMA: _____
Alcalde Peleáneo

NOMBRE: _____

CECULA No. _____ SERIE _____

FIRMA: _____
Pto. Sociedad Padres y Amigos

NOMBRE: _____

CECULA No. _____ SERIE _____

FIRMA: _____
Profesor de la Escuela

NOMBRE: _____

CECULA No. _____ SERIE _____

FIRMA: _____
Miembro de la Comunidad

NOMBRE: _____

CECULA: _____ SERIE _____

FIRMA: _____
Miembro de la Comunidad

NOMBRE: _____

CECULA No. _____ SERIE _____

FIRMA: _____
Miembro de la Comunidad

NOMBRE: _____

CECULA No. _____ SERIE _____

YO, _____, DOY FE DE QUE EL SOLAR MOSTRADO ES EL QUE APARECE EN EL GRAFICO DE LA PAGINA #4 DEL FORMULARIO PIDE S-1.

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SECRETARIA DE ESTADO DE EDUCACION, BELLAS ARTES Y CULTOS
EXPANSION DEL PROYECTO INTEGRADO DE DESARROLLO EDUCATIVOFORMULARIO PIDE (S-1) PARA EL ACOPIO DE DATOS DEL SOLAR Y ZONA:

ESCUELA: _____ ESPACIOS: _____ NUCLEO _____
 DISTRITO ESCOLAR # _____ PROVINCIA: _____ PAG. _____
 FECHA: _____

I.- Graficar aproximadamente a escala conveniente el camino del recorrido para llegar al solar desde la Sede del núcleo ó población de fácil localización en la dirección de llegada, señalándose:

- Las comunidades de importancia por donde hay que pasar y sus distancias en kms.
- La variación del camino por tramos en kms. indicándose el tipo de base y condiciones de éstos, pendientes fuertes, tramos dañados por erosión, tramo en que el acceso es a caballo ó a pie, si hay que cruzar algún río. Marcar cada tramo con una letra mayúscula.
- Los ejes referidos al mapa cartográfico. Indicar el Norte.
- Lugar en donde está el río o fuente de agua más próximo al solar y también en donde haya el material granular de posible uso en la obra, indicándose la distancia en kms. y como tiene que ser el acarreo (volteo, camioneta, caballo, etc.).
- Especifique cualquier otro detalle que aumente o disminuya los costos normales de construcción de la escuela.

II.- Graficar a una escala mayor el ó los tramos importantes para la evaluación de los costos en que se vá a incurrir al transportar los materiales. También podría utilizarse para ampliar algún detalle del gráfico del solar (acópito III).

III. Dibujar el solar en planta (un croquis) señalándose:

- Las medidas laterales de su contorno en metros y más o menos los ángulos en las esquinas indicando si está entre 0° y 45°, 45° y 90°, 90° y 180°.
- Si hay un plantel escolar o estructura cualquiera existente, dibújese más o menos a escala dando sus dimensiones laterales (ancho x largo) indicando sus divisiones y localización de su ubicación dentro del solar; mencionar los materiales de sus paredes, pisos, ventanas y techo.
- Localizar dentro o próximo al solar las cañadas, barrancas, precipicios, colinas, depresiones, lagunas, rocas grandes, árboles, corrientes de agua, etc., o cualquier otro elemento que afecte u obstruya la construcción y que implique gastos en la limpieza del solar.
- Ubicar el lugar en donde considere debe construirse la escuela, ya sea porque hay una explanada o porque se pueda hacer dándose un corte ligero, dar dimensiones laterales.
- Ubíquese dentro del área determinada en (d) el ó los pabellones necesarios de acuerdo a la cantidad de espacios a construirse; indicando el norte perpendicular.
- Ubicar la carretera o camino que pasa al frente del solar con su zanja y línea de alta tensión si la hay, si está muy lejos del solar indicar distancia no a escala del solar.
- En caso de que el terreno en el área debajo de los pabellones sea orgánico procédase hacer una excavación de 1 mt. de profundidad in situ con pico y pala, observar y anotar la profundidad de la capa orgánica y hasta donde aparece el firme sobre el cual ruésa cimentarse.
- Localizar la instalación de agua potable ó línea de energía eléctrica si la hay.

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SECRETARIA DE ESTADO DE EDUCACION, BELLAS ARTES Y CULTOS
PROYECTO INTEGRADO DE DESARROLLO EDUCATIVO, PIDE
INVENTARIO Y CONDICION DE PLANTA FISICA

FORM. PIDE S-1

PROVINCIA _____

FECHA _____

MATERIALES DE CONSTRUCCION Y CONDICION DEL PLANTEL EXISTENTE

| No. AULAS | DIMENSION EN METROS | PISOS | | | | PARETES | | | VENTANAS | | PUERTA | | | TECHO | | | TUBERIAS | |
|----------------|---------------------|-------|------|-------|------|---------|------|--------|----------|------|--------|-------|------|-------|------|--------|----------|--------|
| | | Conc. | Mos. | Pier. | Mad. | Block. | Mad. | Otros. | Al. | Mad. | Mad. | Zinc. | Asb. | Conc. | Caña | Otros. | Mad. | Hierro |
| 1 | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | |
| Dirección. | | | | | | | | | | | | | | | | | | |
| Depósito. | | | | | | | | | | | | | | | | | | |
| Aula Taller. | | | | | | | | | | | | | | | | | | |
| Sala Multiuso. | | | | | | | | | | | | | | | | | | |
| Cocina. | | | | | | | | | | | | | | | | | | |
| Letrinas. | | | | | | | | | | | | | | | | | | |
| Sanitarios. | | | | | | | | | | | | | | | | | | |

OBSERVACIONES: _____

MARKUE CON UNA DE ESTAS LETRAS:
 B=Buena Condición.
 =Regular-Puede ser reparado.
 =Malo-Debe sustituirse.

Preparado Por: _____ Fecha: _____

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SECRETARIA DE ESTADO DE EDUCACION, BELLAS ARTES Y CULTOS

PROYECTO INTEGRADO DE DESARROLLO EDUCATIVO (PIDE)

Inventario de Mobiliario y Equipo

Número Escolar # _____ Núcleo # _____

Nombre de la Escuela _____

| No. de Aulas | No. de Butacas | | | No. de Pupitres | | | No. Silla Maestro | | | No. Escritorio Maestro | | | Pizarra | | |
|--------------|----------------|---|---|-----------------|---|---|-------------------|---|---|------------------------|---|---|---------|---|---|
| | B | R | M | B | R | M | B | R | M | B | R | M | B | R | M |
| 1 | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | |
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| 8 | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | |

PREPARADO POR: _____

FECHA: _____

- = Buena
- R = Reparación
- M = Malo debe sustituirse

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Comisión de Concentración Nacional
Secretaría de Estado de Educación, Bellas Artes y Cultos

DEPARTAMENTO DE INGENIERIA

COMPOSICION DEL PERSONAL:

- ENCARGADO

- 1 Ing. Supervisor Gral.
- 1 Asistente Departamento
- 1 Secretaria

SECCIONES:

- SUPERVISION DE CAMPO:

- 8 Ingenieros Supervisores

- ARQUITECTURA:

- 1 Arquitecto
- 1 Técnico Arquitecto
- 2 Dibujantes

- MENSURAS CATASTRALES Y LEGALIZACION DE SOLARES: (SOLO 6 MESES)

- 1 Agrimensor
- 5 Ayudantes
- 1 Aboqado asignado SEEBAC a PIDE por 6 meses

- CONSTRUCCION CON PARTICIPACION DE LA COMUNIDAD:

- 1 Ingeniero
- 2 Técnicos Ingenieros

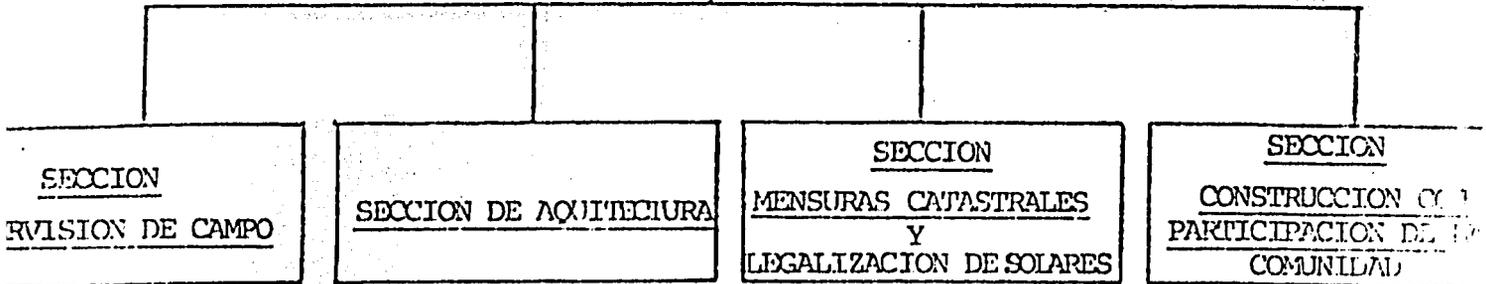
Secretaria de Estado de Educación, Bellas Artes y Cultos

DIRECTOR EJECUTIVO DEL PIDE



DEPARTAMENTO DE INGENIERIA
ENCARGADO

- 1 Ing. Supervisor General
- 1 Asistente Departamento
- 1 Secretaria



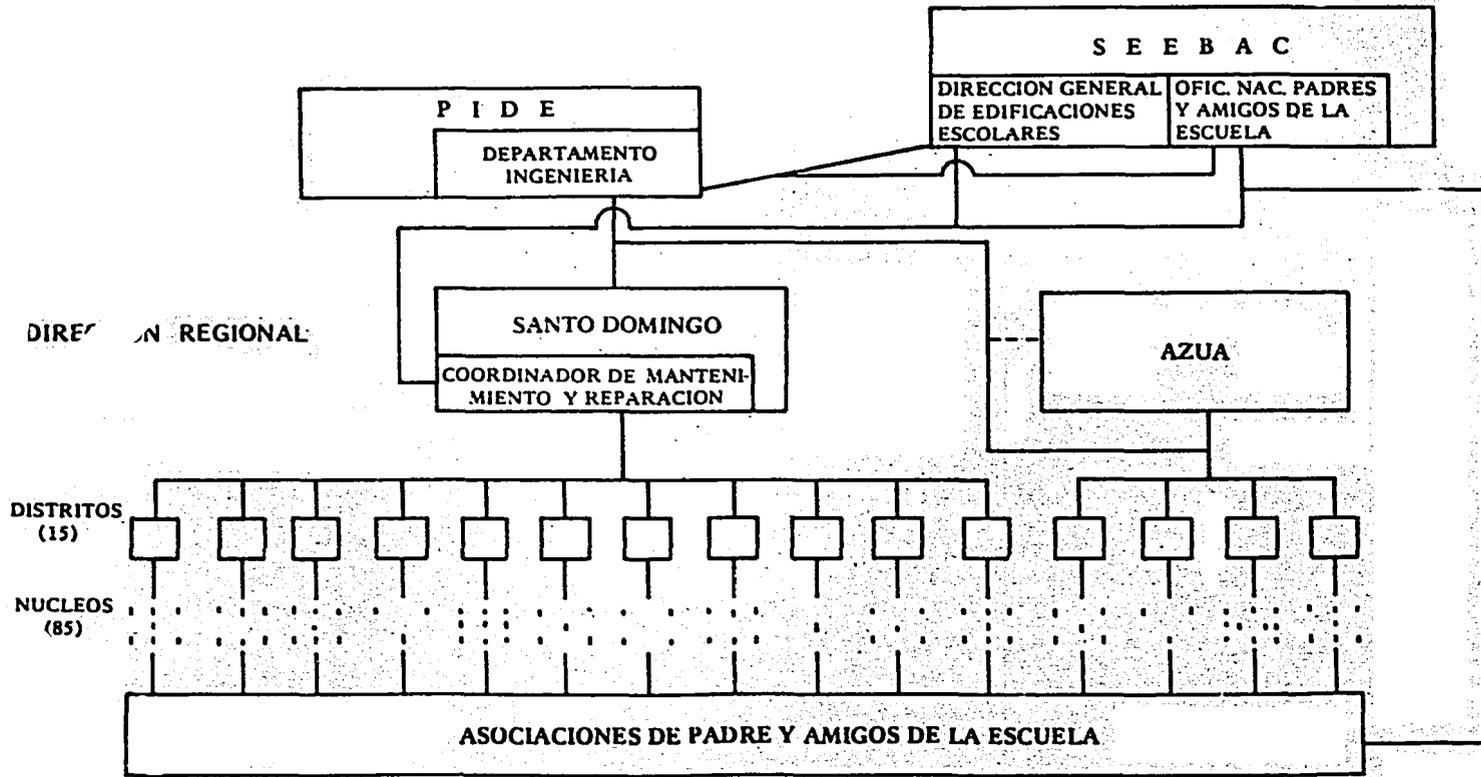
8 Ingenieros

- 1 Arquitecto
- 1 Técnico Arq.
- 2 Dibujantes

- 1 Agrimensor
- 5 Ayudantes topógrafos.

- 1 Ingeniero
- 2 Técnicos

MANTENIMIENTO DE ESCUELAS
ORGANIGRAMA



SUMARIO DEL PROCESO DE IMPLEMENTACION

ANNEX H
Page 14 of 17

Para implementar la filosofía y modalidades antes mencionadas, es necesario:

1.— Dar orientaciones a los Directores de Direcciones Regionales, Directores de Distritos, Directores de Núcleos y Sociedades de Padres y Amigos de las Escuelas en el procedimiento a usar para establecer el sistema de mantenimiento y reparaciones, usando este manual como base.

2.— Planificar con las Sociedades de Padres y Amigos de las Escuelas, sistema de mantenimiento para las escuelas como: Limpieza de la escuela, terrenos y reparación del edificio y mobiliario. La planificación incluye una estimación de gastos necesarios para mantenimiento y hacer reparaciones necesarias.

3.— Evaluar los planes y aprobar el financiamiento necesario.

4.— Establecer controles de implementación para planes aprobados a cada nivel en-
vuelto en el sistema.

PROCEDIMIENTO

ETAPAS PRINCIPALES:

1.— Los Directores de Distritos con sus Directores de Núcleos, prepararán con la ayuda del Equipo de la SEEBAC-PIDE, el formulario "Inventario de Planta Física", para cada escuela (ver anexo formulario No.1). Un maestro y un representante de la Asociación de Padres y Amigos de la Escuela, deben estar envueltos en la preparación del formulario.

2.— Para cada escuela que necesite mantenimiento o reparación, un maestro y un representante de la Asociación de Padres y Amigos de la Escuela, deben preparar el formulario "Mantenimiento y Reparación Necesario para la Escuela", (ver anexo formulario No.2), bajo la supervisión del Director de Núcleo.

3.— En base del formulario No.2 "Mantenimiento Necesario para la Escuela", el Director de Distrito con sus Directores de Núcleos, y con la ayuda del Equipo SEEBAC-PIDE, prepararán un plan de mantenimiento para el Distrito Escolar (ver anexo formulario No.3).

4.— El plan de mantenimiento de cada Distrito Escolar (preparado por el No.3), será revisado por el Equipo de la SEEBAC-PIDE, en términos de criterios establecidos para Mantenimiento y reparación. Cada obra de mantenimiento y reparación será aprobada por Item.

5. En base de obras aprobadas con su costo estimado, PIDE hará un avance al Director de Distrito Escolar del 25 o/o más o menos del total de las obras aprobadas, solicitado en formulario No.5. El Director de Distrito depositará este dinero en una cuenta especial, controlada por un banco de la población donde está la Sede de cada Distrito Escolar. El Director del Distrito Escolar mantendrá una contabilidad de este dinero, usando el formulario No.4.

6.— En base del plan de trabajo aprobado por la SEEBAC-PIDE, el Director de Distrito dará un avance a los Directores de Núcleos correspondiente al trabajo aprobado para ejecutarlo con la Asociación de Padres y Amigos. El Director de Núcleo presentará al Director de Distrito Escolar una copia del formulario No.3, con los costos actuales para cada obra con comprobantes para cada gasto.

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7.— Cuando el Director del Distrito Escolar tenga el informe financiero del Director de Núcleo para trabajos terminados, él puede entregar a PIDE una copia de los formularios 3 y 4 con comprobantes y pedir un avance adicional en base a la planificación aprobada anteriormente, usando el formulario No. 5.

NOTAS:

1.— Para cada mantenimiento y reparación incluido en el formulario No.2, el Director de Núcleo deberá tener un compromiso formal de la participación de la comunidad. El Director del Distrito, no efectuará ningún avance al Director de Núcleo hasta que esté seguro que la contrapartida de la comunidad está disponible.

2.—El Director del Distrito y el de Núcleo, deben usar el avance solamente en el mantenimiento y reparación aprobado por la SEEBAC-PIDE. Cualquier dinero que sobre porque los gastos estimados sean más altos que los gastos actuales tiene que ser reembolsado al PIDE. Los Directores de Distritos Escolares y Núcleos son responsables de asegurar que todo el dinero que controlen sea usado como fue aprobado por la SEEBAC-PIDE.

ASISTENCIA TECNICA Y SUPERVISION

A. ASISTENCIA TECNICA

1.— El Personal de la Dirección General de Edificaciones Escolares y del Departamento de Ingeniería del Proyecto Integrado de Desarrollo Educativo, (PIDE), darán asistencia técnica a los Directores de Distritos, de Núcleos y a las Asociaciones de Padres y Amigos de las Escuelas en la preparación del inventario (formulario No.1), Mantenimiento y Reparación Necesaria por Escuela (formulario No.2) y el Plan y Control de Mantenimiento por Distrito (formulario No.3).

2.— El Contador de PIDE y su asistente darán asistencia técnica a los Directores de Distritos y Núcleos antes del primer desembolso de PIDE, para ayudarlos en la preparación de los libros y formularios para controlar el financiamiento de mantenimiento y reparaciones.

B. SUPERVISION:

1.— Los Directores de Núcleos tendrán la responsabilidad de supervisar CADA obra de mantenimiento y reparación en su núcleo, en base al plan preparado por el Director de Distrito y aprobado por la SEEBAC-PIDE (formulario No.3) y entregar al Director de Distrito todos los comprobantes por gastos hechos.

2.— El Director de Distrito tendrá la responsabilidad de supervisar todos los Directores de Núcleos y hará algunas visitas en cada núcleo para verificar si el trabajo previsto fue terminado.

3.— Técnicos de la Dirección General de Edificaciones Escolares y del Proyecto Integrado de Desarrollo Educativo, (PIDE), realizarán visitas a CADA núcleo para supervisar muestras de obras terminadas.

4.— El Contador de PIDE y su asistente realizarán visitas a cada Distrito Escolar para supervisar el sistema financiero del Componente.

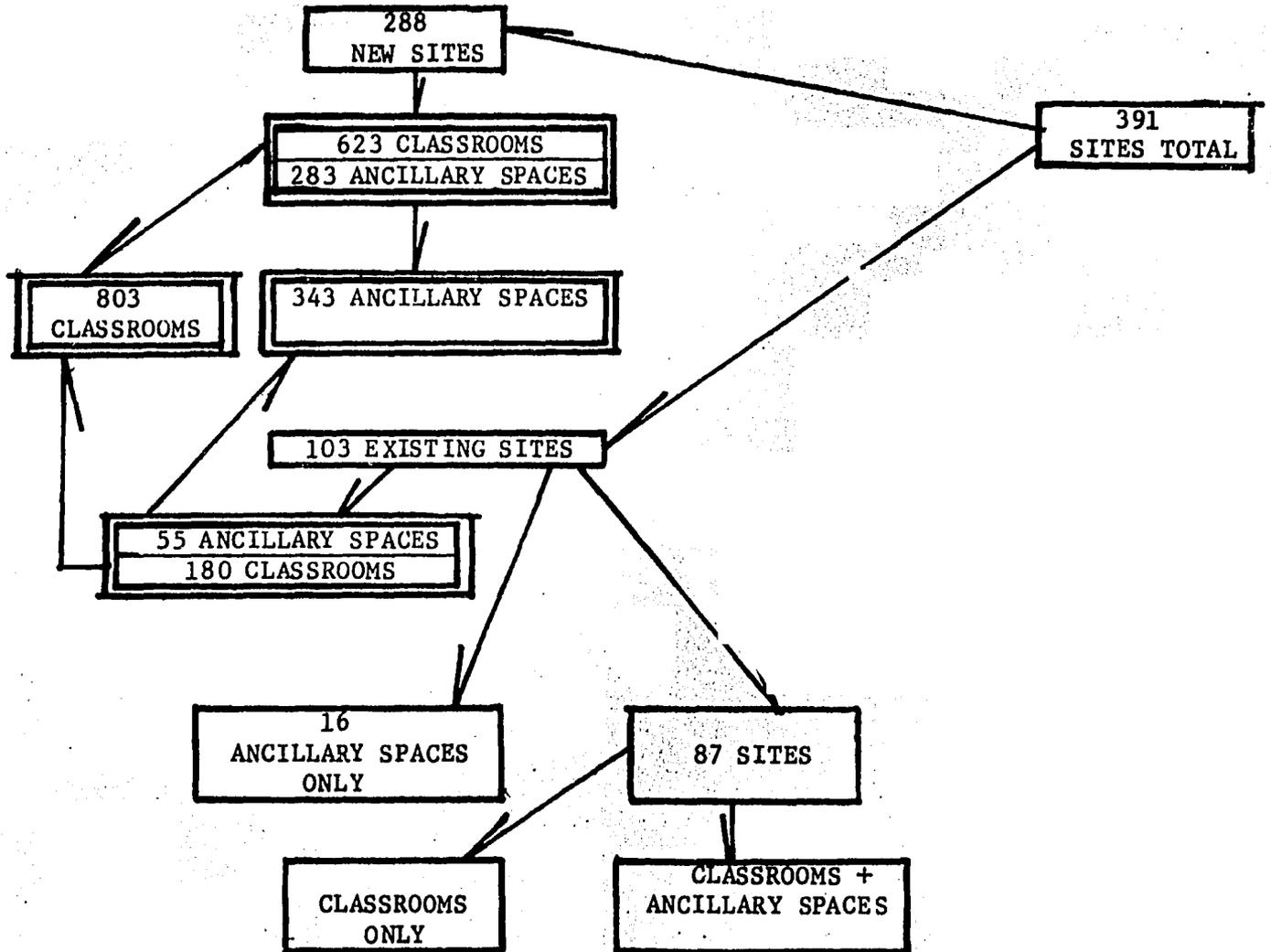
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GUIAS Y CRITERIOS PARA PLANIFICAR MANTENIMIENTO

Los directores deben darle prioridad en mantenimiento y reparaciones a los vicios que son peligrosos para los niños.

- 1.1. Techo agrietado donde haya filtración de agua o el zinc esté mal puesto o roto.
 - 1.2. Paredes agrietadas que se puedan derrumbar.
 - 1.3. Sanitario hundido o lleno.
 - 1.4. Piso con grieta de 1/2 cm.
 - 1.5. Puerta cayéndose.
 - 1.6. Reparación de aceras y escalinatas.
 - 1.7. Reparación de asientos desnivelados.
 - 1.8. Barandilla en aceras y pasillo alto.
-
- 2.1. Reparación de butacas.
 - 2.2. Reparación de pupitres.
 - 2.3. Reparar pizarras.
 - 2.4. Reparar sillas y mesas.
 - 2.5. Reparar arclivos y armarios.
-
- 3.1. Reparar puertas (ponerle llavín y rebajarla).
 - 3.2. Cerrar la abertura techo viga de la oficina y aulas.
 - 3.3. Reparar o acondicionar el patio (hacer muro de contención para evitar erosión).
 - 3.4. Reparar empalizada o verjas.
 - 3.5. Reparación de persianas (poner palanca de ajuste, etc.)
 - 3.6. Reparar piso de sanitarios donde se acumula agua.
 - 3.7. Reparar acera donde se acumula agua.
 - 3.8. Reparación de grietas pequeñas.

PIDE II
CLASSROOM CONSTRUCTION DESCRIPTION



KEY:



ALL CONSTRUCTION IS NEW

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THE PIDE PROJECT: DESIGN AND EVALUATION

1. The Dominican Educational Reform

The 1977 Dominican Education Reform established a time-phased series of development goals to be reached within the decade:

1. By 1980 provide each núcleo central school with the necessary infrastructure and equipment to enable students to gain practical experience and orientation to vocational education.
2. By 1981 all communities should be provided with a basic education center.
3. By 1981 attain enrollment of 90% of school age population.
4. By 1982 hire the teachers necessary to bring student/teacher ration to 1 to 4.
5. By 1987 eradicate illiteracy.

In order to reach these goals, the GODR recognized that partnerships with international donor agencies were needed. The 1978 PIDE, Integrated Project for Educational Development, provided not only a four year time-phased implementation plan for a four province area, but also provided the financial resource needed to implement the project. This annex provides: a description of the original PIDE design, by component, a description of results of the planned PIDE evaluations; and a discussion of PIDE's actual outputs vis-a-vis originally planned outputs.

2. The PIDE Design

The Integrated Project for Educational Development (PIDE), was designed to assist the GODR implement the education reform and, therefore, provide at least four years of improved basic education to all rural children in a pilot area. A pilot project approach was selected in order to facilitate project implementation. The provinces selected were San Cristóbal (recently subdivided into the two provinces of San Cristóbal

and Monte Plata), Azua, Peravia and the rural areas of the National District. Project activities were designed to respond to and strengthen specific Education Reform goals.

- a. Development of an education statistics information system.
- b. Activities in research and planning.
- c. Provision of additional teachers and support personnel and upgrading of teachers, administrators and technicians.
- d. Development of educational materials.
- e. Construction of education facilities and provision of equipment.
- f. Establishment of a school maintenance capability.

The planned cost of the project was \$15 million. AID provided \$7.5 million in loan financing, a large portion of which would finance construction and equipment costs. Other costs included a training element and technical assistance.

3. The PIDE Evaluations

With the PIDE project nearing completion, the USAID undertook two planned evaluations in 1984: one of the construction component and the second of the education related activities. Both evaluations were to determine project progress toward attainment of the planned purpose and outputs.

a. Construction Evaluation

The original project design called for construction activities to be carried out by the Office of Community Development (ODC). However, almost immediately after the PIDE project was initiated, the component ran into difficulties. A new Secretary of Education, based on provided cost savings to the project, requested that SEEBAC construct or have constructed the classrooms. This change was agreed to. However, poor administrative and management procedures caused a USAID/SEEBAC reevaluation to be made. As a result of the reevaluation, a new system for procurement of construction services was developed utilizing a sorteo (lottery) system and employing private sector contractors with close supervision by the PIDE office in SEEBAC.

The results of the evaluation show the overwhelming success of the construction element and particularly the implementation mechanism. In a period less than twelve months, over 1,400 classroom and

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multipurpose rooms were constructed at an average cost of \$8,000 per room. Supervisors, contractors and the evaluator concluded that the sorteo method was the most impartial and speediest system for construction. The evaluator indicated that the type of construction and materials used were good, with the exception of some minor design flaws noted in the initial phase of construction which were corrected in subsequent sorteos. The on-site inspections revealed that the maintenance of the facilities varied from very good to poor with most in the fair category.

b. The Evaluation of the Non-Construction Components

For the PIDE non-construction elements, the planned output level varied by component. PIDE made major advancements in teacher training and education materials development. Less success was demonstrated in statistics, research, and planning. Some progress was noted in maintenance, but the system is not fully operational. The following provides a synopsis of the project results.

i. Education Statistical Information System

This component was measured against an expected output of an information system providing yearly data on a variety of indicators, including: student enrollment, student promotion, student dropouts, student performance rates, literacy rates, public sector education expenditures, community socio-economic data, and cost per direct beneficiary.

This objective has not been reached. Planning and preparatory work has been done, but statistical reports have not been published on a regular basis. The evaluators reported that while data has been collected at the teacher and nucleo director level, the statistics department staff were not able to predict when and if the analysis necessary for reports would be conducted.

The evaluation indicated that the major impediment to success in this component was the lack of a human resource base upon which to build a Statistics Department. In 1978, there were three people in the statistics office; currently, there are nine. However, the department has experienced a high personnel turnover rate and the current employees are relatively recent appointees. This high turnover rate caused a delay in the provision of the planned technical assistance since personnel, both central and regional, were not in place. Also, as qualified personnel were not on-board, the training element could not be fully utilized to strengthen the central office. Finally, the statistics department is not fully equipped to carry out its functions.

ii. Research and Planning

In this component, it was anticipated that a functional planning and research system would be made operational. This output was not fully achieved, however, some progress was noted. For example, a new Research Department consisting of three individuals was established. Also, the department developed and conducted one course in basic research methods for district directors with more planned in the future. Four research contracts were awarded to and completed by the Technological Institute of Santo Domingo:

- Causes of Grade Retention and Drop Outs.
- Socio-Economic and Cultural Characteristics of the PIDE Area.
- Assessment of Training Needs of Teachers and Directors, and
- Evaluation of the Attainment of Educational Objectives.

The lack of an adequately trained human resource base was pointed out as one of the main reasons for the limited success of the component.

iv. Additional Staff and Staff Upgrading

There has been an increase in the number of teaching and supervisory personnel as required to carry out the project. Also, teachers have been trained in the use of the new course plans designed by SEEBAC. Over 90% of the proposed 2,000 teachers and 80% of the supervisory/administrative level personnel received training. The majority reported positive changes in their job performance as the result of training received under the PIDE project. For example, over 80% of all teachers surveyed felt that the in-service training positively affected their teaching. PIDE also provided a significant amount of off-shore training. Most of this training was of one semester duration in curriculum development, regional educational planning and statistics. In the area of education administration, five people received one-year Masters degrees.

v. Education Materials Development

Success in the implementation of this component was also documented in the evaluation. The teacher guides developed under PIDE are being utilized in the target provinces. Teachers also reported

heavy use of not only low-cost instructional materials developed during in-service training but they also reported an ability to use the methodologies taught to develop additional materials on their own. This indicates that the teachers made practical use of the training received in instructional materials development.

Under the PIDE project, other classroom materials (maps, globes, etc.); expendable commodities (chalk and erasers); vocational teaching materials (simple hand tools and sewing machines); and library books were to be purchased. The evaluation reported that this was done and that teacher response to availability of classroom materials was positive.

vi. School Maintenance

Due to the relatively recent completion (at the time of the evaluation) of the construction, repair and equipping of schools and classrooms under PIDE, the issue of maintenance has not yet become a major concern. Nonetheless, progress in this area was observed. A decentralized maintenance system has been designed. The system puts responsibility for maintenance on the district and nucleo directors and to some extent on the community. Thus far, a maintenance manual has been published and distributed; maintenance checksheets for schools have been designed; district and nucleo directors have been oriented; and a simplified control and accounting system for advances and expenditures has been developed.

c. Cohort Indicators

There were five education cohort indicators in the PIDE document. They are discussed below.

- 1) Increase primary school age population attending school to 90 percent. The PIDE project was able to increase access to 94 percent of the estimated rural 7-14 population.
- 2) Reduce the repetition rate for grades 1-4 from 35 percent to 30 percent.
- 3) Reduce the dropout rate for grades 1-4 from 40 percent to 20 percent.
- 4) Increase the student retention rate for grade 1-4 from 24 percent to 50 percent enrollments.

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These cohorts are interrelated and thus are discussed together.

The promotion rates used in the project document indicated that 156 of every 1,000 enrolled in 1974 were promoted to 5th grade in 1978. Using 1982-83 statistics, promotion to the 5th grade had improved to 441/1,000, a 183 percent increase from 1978 figures. Per grade promotion rates in comparable 1982-1983 schools were one percent to six percent higher in PIDE schools when compared to other rural schools.

It was not possible to determine the improvement in the dropout and repetition rates. Although both registered decline, weights could not be established.

5) Reduce average enrollments by 90 percent.

Compared to 1975-76 data, the average population for the PIDE area in 1982 decreased by five percent to 70 percent while the whole rural system reflected an increase of six percent to 81 percent. Thus, while outperforming the system the hoped for average indicator was evidently not reached.

The average statistics should be analyzed from both definitional and functional criteria. For the purposes of this exercise, seven year olds were considered of first grade age, eight years old were considered of second grade age and so on. Slippage in registration because of a late year birth is not taken into consideration by this model. Functionally, once a student is on an overage category he is always considered overage. The system does not offer "summer classes" in rural areas for makeup. However, as the definitional problems are refined and the full effects of the educational reform are in place, the overage quality index should show a dramatic improvement.

d. Conclusion

The basic objectives of the project have been met in terms of schools constructed and equipped, teachers and supervisory personnel trained, and instructional materials developed and distributed. A start has been made toward a full scale maintenance system and a fledgling planning, research and statistics office has been established, although it is in need of additional support. Also, the Secretariat has demonstrated a capacity to effectively manage the project. The successes of PIDE can be expanded and the shortcomings can be addressed with the provision of additional inputs. Additionally, the positive results of the initial evaluation of the RADECO project demonstrated improvements in student learning by innovative use of radio. While the evaluations demonstrated that progress has been made, the following section will indicate the need for additional resources in the area of primary education.

STATISTICAL SUMMARY OF MAJOR SOCIAL INDICATORS

Oriental Cibao Provinces

| | Duarte | María Trinidad Sánchez | Salcedo | Samaná | Sánchez Ramírez | Region | Country |
|--|----------|------------------------------|---------|--------|--------------------|----------|------------------------|
| Area (Km ²) | 1,292.37 | 1,310.27 | 533.00 | 988.67 | 1,174.33 | 5,298.65 | 48,442 |
| Total population (1981 thousands) | 235,544 | 112,629 | 99,191 | 65,699 | 126,567 | 639,630 | 5,647,977 |
| Urban (%) | 36.2 | 26.8 | 16.9 | 21.9 | 21.3 | 24.6 | 48.5 ⁽¹⁹⁸²⁾ |
| Rural (%) | 63.8 | 73.2 | 83.1 | 78.1 | 78.7 | 75.4 | 51.5 ⁽¹⁹⁸²⁾ |
| Annual growth rate (average 1970-1981) | 2.9 | 2.7 | 2 | 3.7 | 3.2 | 2.6 | 2.8 |
| Birth-rate (by thousands) 1978 | 32.0 | 45.2 | 36.8 | 36.4 | 44.0 | 38.9 | 36.3 |
| Mortality rate (by thousands) 1979 | 5.4 | 16.1 | 4.2 | 9.8 | 2.7 | 7.6 | 4.9 |
| Infant mortality rate (by thousands) 1979 | 39.0 | 95.6 | 13.7 | 51.0 | 13.6 | 42.6 | 31.4 |
| Population per Km ² - 1981 | 83 | 86 | 186 | 66 | 107 | 121 | 117 |
| Literacy (%) 1982 | 65.2 | 62.6 | 67.8 | 64.0 | 57.3 | 63.4 | 69.7 |

SOURCE: CENTRAL BANK.

DETAILED SCHEDULE OF EVENTS

CONSTRUCTION

| Date | Description |
|-------------|--|
| <u>1984</u> | |
| July | - Start of field inspection trips |
| August | - Start of office work for reviewing plans, specs and estimates and bid documents. |
| October | - Add requesting curriculums for supervisors and contractors. |
| | - Closing date to accept curriculums for supervisor and contractors. |
| | - Approval of Plans and specifications by USAID. |
| December | - Completion date of the prequalification commission. |
| | - Date for the <u>sorteo</u> of the first group of facilities. |
| | - Appointment of the supervisors engineers. |
| <u>1985</u> | |
| January | - Start of construction works of facilities under first group. |
| April | - Date for the <u>sorteo</u> of the second group of facilities. |
| | - Start of construction work of facilities under second group. |
| August | - Date for the <u>sorteo</u> of the third group of facilities. |
| | - Start of construction works of facilities under third group. |

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- Completion of all construction works under construction component.
- Final date of contracting of supervisor engineers.

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INFORMATION SYSTEMS

| <u>Date</u> | <u>Description</u> |
|-------------|---|
| <u>1985</u> | |
| January | - TA contract advertised. |
| | - Commodity list detailed. |
| March | - TA contract awarded |
| | - Commodity purchase begins |
| April | - Technical assistance begins initial evaluation of SEEBAC information system. |
| July | - Initial contractor evaluation of Information Systems and detailed work plan due. |
| | - Participant selection process begins. |
| August | - SEEBAC acceptance and work plan implementation begins on in-service training and data collection. |
| December | - SEEBAC FY Planning documents published. |
| <u>1986</u> | |
| January | - Participants depart |
| August | - First statistical reports due |
| December | - Updated statistical reports and SEEBAC FY planning documents published. |
| <u>1987</u> | |
| January | - First discrete research reports published. |
| August | - Updated statistical reports |
| December | - Updated statistical reports and SEEBAC FY planning documents published. |

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1988

- February - Research reports published
- August - Updated statistical reports
- December - Updated statistical reports and SEEBAC FY planning documents published.

1989

- February - Research reports published
- August - Updated statistical reports
- December - Updated statistical reports and SEEBAC FY planning documents published.

TEACHER TRAINING

| Date | Description |
|-------------|---|
| <u>1985</u> | |
| January | - Contract signed with Cenapac for high school equivalency. |
| | - Scopes of work/bid document prepared for the in-service off-shore technical assistance. |
| March | - Scope of work/bid prepared for university administration contract. |
| | - Contract let for the in-service off-shore technical assistance. |
| April | - Off-shore technicians arrive. |
| | - Prepare in-service teacher training materials for 1st-4th grade teachers. |
| July | - Contract let with local university for senior administrative-certificate training. |
| | - Training begins of teacher/multipliers. |
| | - Prepare Normal school equivalency materials. |
| August | - In-service training for secretaries (5 days). |
| September | - University training begins for 1st group of senior administrators (40 Saturdays) |
| | - Cenapac training for high school equivalency begins (1-2 years depending on individual needs). |
| October | - In-service training for 1st to 4th grade teachers begins (each module will consist of 20 Saturday sessions. |

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- In-service training for Normal school equivalency begins (there will be 40 Saturday sessions each year beginning in Oct.)

1986

- January - Prepare materials for 5th and 6th grade teacher training.
- March - In-service up-date teacher/administrator training begins (each module will consist of 8 Saturday sessions).
- July - Training for 5th - 6th grade teachers begins (each module will consist of 20 Saturday sessions).
- Finalize material for parent group training.
- September - 2nd Cenapac high school equivalency group begins (1-2 years depending on individual needs).
- 2nd group of senior administrators for university certificate training.
- October - 2nd in-service training for Normal school equivalency (40 Saturdays).
- 2nd in-service up-date teacher/administrator training.
- 1st training for parents group (4 Saturdays).

1987

- January - Prepare materials for 7th and 8th grade teacher training.
- March - 3rd in-service update teacher/administrator training.
- 2nd group of parent training.
- April - Off-shore technical assistance departs

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- July - Training for 5th and 6th grade teachers begins (each module will consist of 20 Saturday sessions).
- September - 3rd group of teachers for Cenapac high school equivalency begins (1-2 years depending on individual needs).
- 3rd group of senior administrators for university certificate training.
- October - 3rd in-service training for Normal School equivalency (40 Saturdays).
- 4th in-service update teacher/administrator training.
- 3rd group of parent training.
- 1988
- March - 5th in-service update teacher/administrator training.
- 4th group of parent training.
- September - 4th group of senior administrators in University certificate training.
- October - 4th in-service training for Normal School equivalency begins (40 Saturdays).
- 6th in-service update teacher/administrator training.
- 5th group of parent training.
- 1989
- March - 7th in-service update teacher/administrator training.
- 6th group of parent training.
- October - 5th in-service training for Normal School equivalency begins (40 Saturdays).
- 7th group of parent training.

RADIO MATHEMATICS

| Date | Description |
|-----------------|---|
| <u>1985</u> | |
| <u>January</u> | Negotiations with SEEBAC for: <ul style="list-style-type: none">- project implementation planlegal establishment of Department of Educational Radio- local staff- offices- office equipment- air time- Scopes of Work |
| <u>February</u> | <ul style="list-style-type: none">- Selection of radio mathematics project advisor- Order radios and batteries, and chargers- Arrangements for training trip in March- TA contract awarded |
| <u>March</u> | <ul style="list-style-type: none">- Training in California (March 1-8) in radio mathematics program methodologies, by Dr. Jamey Friend- Order vehicle- Consult with printer for reprinting guides and materials, first grade- Technical Assistance arrives- Select SEEBAC radio education coordinator (by SEEBAC, USAID, and project advisor) |

- April
- Collect data on school sites, distribution of grades, teachers multigrade schools, double session schools, and coffee region calendar schools
 - Arrange for reproduction of RADECO master tapes for transmission.
 - Study available radio stations: including Armed Forces Radio
 - Get radio auxiliary guides and worksheet originals from RADECO
 - Work with radio mathematics consultant on developing evaluation plan and revision of teacher guides.
- May
- Revise and retype teacher guides
 - Contact directors of nucleo schools.
- June
- Deliver guides and worksheets to printer
 - Hire distribution clear (with driver's license)
 - Visit nucleo schools and others to check facilities
 - Complete selection of schools and teachers
 - Inform teachers and directors of training date
- July
- Complete training plans
 - Prepare school broadcasting schedule
- August
- Guides worksheets and radios ready for delivery
- September
- Barahona officially incorporate RADECO personnel, equipment, and materials into DER.
 - RADECO technical assistance in radio education, curriculum and development, and radio production transferred to DER under USAID PSC's.

- Complete broadcasts 3rd grade.
- Summative revision of second grade lessons and begin revision
- Enroll students from 1984-85 first and third grades for 1985-86 second and fourth grades.
- Administer summative evaluation pre tests in control schools, second and fourth grades.

October

- Short-term consultants in reading and math (1 mo.)
- Administer summative evaluation pre tests, second grade.
- Begin broadcasting revised second grade

November

- Organize master study plan for fourth grade reading and mathematics.
- Begin writing radio lessons on reading text chapters, fourth grade.

1986

January

- Administer summative evaluation, pre tests - fourth grade.
- Begin Broadcasting fourth grade
- Begin formative evaluation - fourth grade.
- PIDE administrator post test

June

- Barahona administer post tests in control schools, second and fourth grades

July

- Administer post tests in Radio Community Education centers - second grade
- Process data and report evaluation results

August

- Organize Radio Community Education centers for September 1986 - June 1987, broadcasts of first, second, third, and fourth grades.

September

PIDE Broadcast 2nd grade - expand 1st grade
- administer pre-test

Administer post tests in Radio Community
Education centers, fourth grade. Process
data and report evaluation results.

End of technical assistance in radio
community education, curriculum and
evaluation, radio broadcasting.

Department of Educational Radio begins
1986-87 broadcasts of grades 1-4 to radio
community education centers.

1987

February

Technical Assistance departs

June

Administer post tests to grades 1st and 2nd

July

Prepare materials and offer in-service
training for 1st, 2nd and 3rd grades.

September

Administer pre tests to 1st, 2nd and 3rd
grades.

1988

June

Administer post tests to 1st, 2nd and 3rd
grades.

July

Prepare materials and offer in-service
training for 1st, 2nd, 3rd and 4th grades.

September

Administer Administer pre tests to 1st, 2nd,
3rd and fourth grades.

1989

June

Administer post tests to 1st, 2nd, 3rd and
4th grades

SAMPLE LIST OF THE EQUIPMENT AND MATERIALS TO BE PROCURED
UNDER THE VARIOUS PROJECT COMPONENTS

Training of Teachers, Administrators and Technicians
Provision of Equipment and Materials Line Items

Equipment

| <u>Quantity</u> | <u>Item</u> |
|-----------------|--------------------------|
| 90 | Staplers |
| 90 | Staple removers |
| 10 | Mimeograph Machines |
| 90 | Hole punchers |
| 90 | Typewriters (mechanical) |
| 100 | Files, 4 drawers, metal |

Expendable Materials
(4 years)

| <u>Quantity</u> | <u>Item</u> |
|-----------------|-----------------------------|
| 400 reams | Bond Paper 8 1/2 x 11 |
| 400 boxes | Stencils |
| 700 reams | Mimeograph Paper 8 1/2 x 13 |
| 50 bottles | Ink for correcting stencils |
| 200 bottles | Mimeograph Ink |
| 200 boxes | Carbon paper |
| 50 gross | Pencils |
| 50 boxes | Folders |
| 1,671 boxes | Clips |
| 3,480 " | White Chalk |
| 1,400 " | Chalk-Colored |
| 8,000 ea. | Red pencils |

BASIC CLASSROOM EQUIPMENT & MATERIALS

| <u>Quantity</u> | <u>Item</u> |
|-----------------|--|
| 3,985 | Drawing Board |
| 698 rolls | wrapping paper |
| 698 boxes | Felt tip pens |
| 1,544 | Ruler, Meter |
| 698 | Compasses |
| 87 | Earth Globe |
| 175 sets | Maps-World |
| 3,188 boxes | Caryons-Colored |
| 1,594 boxes | Water Paint |
| 698 | Magnifying glasses |
| 698 | Compasses |
| 1,000 yds. | Flannel Cloth Others (wood, thread, etc.) |

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SAMPLE LIST OF LIBRARY BOOKS FOR
EACH CENTRAL SCHOOL

TITLES

- Mi Libro de Expresión Plástica ±4
- Mi Libro de Expresión Plastica ±5
- Mi Libro de Expresión Dinámica ±5
- Mi Libro de Expresión Dinámica ±4
- Mi Libro de Experiencias ±4
- La Vieja Belén
- Duarte Para Estudiantes
- Mi Libro de Lenguaje ±4
- Mi Libro de Lenguaje ±5
- Mi Libro de Expresión Matemática ±4
- Mi Libro de Expresión Matemática ±5
- Mi Libro de Experiencias ±5
- Curso Sobre la Iglesia
- Colección Cuadernos del Alumno 1er Nivel
- Métodos de Lectura y Escritura 1er Nivel
- Métodos de Lectura y Escritura 2do Nivel
- Mis Fichas de Matemáticas ±5
- Mis Fichas de Lenguaje ±4
- Mis Fichas de Experiencia ±5
- Mis Fichas de Expresión Dinámica ±5
- La Cabaña del Tio Tom
- Cuentos Escogidos
- Libro de Lectura y Lenguaje - Nacho Dominicano II
- Libro de Lectura y Lenguaje - Nacho Dominicano III
- Lengua Española IV
- Nacho Dominicano V
- Nacho Dominicano VI
- Matemática Actualizada I
- Matemática Actualizada II
- Matemática Actualizada III
- Fábulas de Samaniego (Colección Saeta-Edit. Susaeta)
- Estudios Sociales III - Susaeta
- Estudios Sociales VI - Susaeta
- Alicia en el País de las Maravillas - Colección Susaeta
- El Amigo Fiel (Colección Esmeralda - Edit. Susaeta)
- Tu Amigo Escribe No. I
- Estudios Sociales de Mi Patria (2do)
- Matemáticas Mod. Esc. Prim. (4to)
- Matemáticas Mod. Esc. Prim. (5to)
- Matemáticas Mod. Esc. Prim. (6to)

NOTE: These books are part of the collection to be integrated into PIDE Libraries.

PRACTICAL ARTS EQUIPMENT

General Carpentry and Woodworking

| <u>Description</u> | |
|--|-------------------|
| Hand crosscut saw | - 24" |
| Hand rip saw | 24" |
| Keyhole saw | 15" |
| Hacksaw | 12" |
| Saw setting machine | |
| Clamps of | 4" |
| Clamps of | 6" |
| Clamps of | 12" |
| 4" Rabbet plane with 1" cutting | |
| Planes for wood | No. 3 |
| Planes for wood | No. 4 |
| Planes for wood | No. 5 |
| Wood Mallets | 2 1/2" x 6" |
| Nail Hammer | 7 ounces |
| Nail Hammer | 12 ounces |
| Nail Hammer | 16 ounces |
| 12" Ratchet Brace | 12" |
| Wood Auger Bits (13 pieces - 1/4" to 1") | |
| Expansion Bits | 3/4" to 2" |
| Wood Chisel set of 9 pieces | 1/8" to 1 1/2" |
| Carpenter's Square - steel | - 24" x 2" |
| Steel Triangle | 12" |
| Steel Triangle | 6" |
| Metallic Level Square | |
| Combination Square | 12" |
| Wood Marking Gauge | |
| Crowbar | 3/4" x 24" |
| Curved Claw Hatchet | |
| Level | 12" |
| Adjustable Automatic Wood Scraper | |
| Scraper Blades | |
| Miter Box | |
| Caliper divider | 7" |
| Outside Caliper | 6" |
| Inside Caliper | 6" |
| Hardwood Folding Ruler | |
| Steel Measuring Tapes | 50" |
| Fine Grain Grinding Stone | 6" |
| Router, adjustable | |
| 10" Nail Clippers | |
| Adjustable Metal Bar Clamp | 6" opening |
| Metal Bar Clamp | 4" opening |
| Open end Wrench set | 10 pieces |
| Cleaning Brooms | |
| Double Action Wood Splicing Clam | 8 1/2" |
| Flat Bed Screwdriver | for ratchet brace |
| Rolling Pin | 12" |

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Description

Plastic Handle Screwdrivers 4", 6" and 8"
Wood Handle Screwdriver 4", 6" and 8"
Die mold
Mold impression
Tambourine
Adjustable Wrench (crescent) 8"
Metal Hand Oiler 1/8 pint
Drive Pin Punch set of 1/8" x 5
3/4" Countersink for wood
12" Hand Rasp fine rasps
Wood Working Gauge set 9 pieces
Hawk Saw Frame Adjustable to 12'
Mechanical Drill set 1 1/6" to 1/2"
Electric Extension Cord complete 50" long
Safety Goggles
Hex Key Sets (Allen type)
Portable Electric Drill 1/4" to 3/8" 110 volts
1 wheel Hand Bench Grinder
Fire Extinguisher 40 pounds capacity
Nail Hammer Standard = 1 1/2 pound
Planes for wood No. 4 and 5.
Slip-joints Pliers 10"
Folding Rulers
Ratchet Brace Standard
Brace bit 5/16" and 5/8"
Pressure pliers 10"
Wood Working Lathe Turning Gauges
Wood Chisel set of 6 pieces
Wood Bench (8" x 4")
Cant or Barrette file
Rasp-cut file (10 pieces)
Hand Crosscut
Combination Pliers 8" 6" 4"
Hand Drill 3/8"
Hand Calking Iron
Screwdriver 4" and 6"
Metalic Rulers
Emery Stone
Clamps of 6", 7" and 8" (two of each)
Nail Hammer
Mechanical Drill set
Hac Saw Blades
Mechanical Clamp
Wood Hammer
Oil Can
Bucket
Table
Marble piece 2 x 3
Wood molder's spoon set 16 pieces

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PRACTICAL ARTS EQUIPMENTGRICULTURALDescription

Picks

Shovels

Rakes

Hoes

Machetes

Narrow Blades

Sprinklers

Hose (100 ft.)

Ingrafting equipment (blades, shear, and plastic materials)

Short machetes (blades of 14")

Wheelbarrow (2 cubic ft.)

Tridents 12" to 14"

Iron Drum 55 gls.

Galvanized Water Buckets 5 and 3 gls.

Hand Sprayer

Flax Combs (rake)

Colines (narrow blades)

Stainless Water Buckets

PRACTICAL ARTS EQUIPMENT
HOME EDUCATION

Description

Table formica top 4 x 10.
Gas stove, 4 ranges, oven and broiler
Aluminum pan 2 qt. capacity
Kettles, aluminum ±2 2 and 11
11 lb. capacity
Frying pans
Square baking pan
Round " "
Baking pan w/hole ±26
Flour sifter
Rubber spatula
Collander metal screen
Wooden spoons
Serving spoon (metal)
Wire egg beater w/wooden handle
Plastic serving dishes
Carving knife, wooden handle
Knife for fruits & vegetables, w/wooden handle
Bread knife w/wooden handle
Rectangular aluminum tray
Icing bag for pastries
Tableware for 6 persons
Silverware for 6 persons
Meat grinder
Set of measuring spoons
Glass measuring cup - 2 cup capacity
(measurement in ounces)
Set of aluminum measuring cups with 1-cup,
1/2-cup & 1/4 measurements
Wooden pastry roll
Sewing machines w/pedal
Scissors 8"
Scissors 5"
Plastic garbage can
Tin garbage can with top
Pliers, cutting 5"
Pliers, snul nosed 5"
Combination pliers 6"

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PRACTICAL ARTS CONSUMABLE MATERIALS
BASIC MATERIALS FOR HANDCRAFTS

The Project will finance a yearly amount for the purchase of basic materials for handicrafts as follows:

| | |
|--|--------------------------------|
| - <u>Handicrafts:</u> \$500.00 a year | RD\$ 2,500.00 for 5 years |
| - <u>Carpentry:</u> RD\$1,000 a year | 5,000.00 for 5 years |
| - <u>Home Education:</u> RD\$500.00 a year | 2,500.00 for 5 years |
| - <u>Agricultural Pract</u> RD\$5,000.00 a year | 25,000.00 for 5 years |
| | <u>RD\$35,000.00</u> (5 years) |

Some of the consumable materials that will be provided are listed below, other materials will be contributed by members of the communities.

a) Handicrafts:

- Paste
- Sand Paper
- Stain White
- Paints
- Oil
- Screws
- Nails
- Flannel Cloth
- Wood
- Gypsum
- Clay

b) Carpentry:

- Sand Paper
- Paints
- Oil
- Brushes
- Brushes
- Screws
- Nails
- Wood

c) Home Education:

- Cotton fabrics
- Thread
- Needles (sewing machine)
- Paper
- Cardboard
- Scissors
- Color Pencils
- Water paint
- Sugar
- Butter
- Flour
- Eggs
- Vegetable colors
- Vegetable oil
- Baking powder

d) Agricultural Practices:

- Seeds
- Fertilizer
- Pesticide

INFORMATION SYSTEMSOffice equipment and materials

Microcomputer

IBM 34 education statistics package

Desk calculators

Typewriters

RADIO MATHEMATICSCentral Office

-Office equipment and materials including furniture and office machines.

-Reel to reel tapes.

-Tape deck

Schools

| | Radios at \$50 | Batteries/sets of 6 at \$1.50 |
|------|----------------|-------------------------------|
| 1985 | 200 | 400 |
| 1986 | 140 | 1,000 |
| 1987 | 768 | 4,600 |
| 1988 | 2,200 | 15,800 |
| 1989 | 3,660 | 32,800 |

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EQUIPMENT FOR BRANCH OFFICE

| <u>Quantity</u> | <u>Items</u> |
|-----------------|------------------------|
| 2 | Electric typewriters |
| 2 | Staplers |
| 2 | Calculators |
| 2 | Desks |
| 2 | Tables for typewriters |
| 1 | Mimeograph |
| 2 | File cabinet |
| 1 | Bookcase |
| 1 | Cabinet |
| 6 | Chairs, metal folding |
| 4 | Chairs, wood with arms |
| 1 | Long working table |
| 2 | Chairs, executive |

Consumable Materials

\$250 -- 48 months = \$12,000

TOTAL = \$12,000 + 5,800 + 2,200 = \$20,000

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