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DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

SECTOR LOAN PAPER

Proposal and Recommendations
For the Review of the
Development Loan Committee

PANAMA - EDUCATION SECTOR

5250145
525-6-036

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

UNCLASSIFIED

AID-DLC/P-908
June 12, 1970

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Panama - Education Sector

Attached for your review are the recommendations for authorization of a loan in an amount not to exceed \$8,500,000 to the Government of the Republic of Panama to assist the Borrower in financing the implementation of the first phase of the National Plan for Education by improving the quality of education, improving the administration of the Ministry of Education and expansion of facilities for education.

This loan proposal is scheduled for consideration by the Development Loan Staff Committee at a meeting on Thursday, June 18, 1970.

Rachel C. Rogers
Secretary
Development Loan Committee

Attachments:

Summary and Recommendations
Project Analysis
ANNEXES I, II, III, V, VI, VII, VIII and X
ANNEXES IV and IX available in LA/DR Official Loan Files

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EDUCATION SECTOR LOAN - PANAMA

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AID-DIC/P-908
June 12, 1970

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EDUCATION SECTOR LOAN - PANAMA

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* NOT ATTACHED - Copy available in LA/DR Official Loan Files

EDUCATION SECTOR LOAN - PANAMA
SUMMARY AND RECOMMENDATIONS

1. BORROWER: The Government of Panama
Executing Agency: The Ministry of Education will be the agency responsible for the project execution.
2. LOAN:
 - a. Amount: Not to exceed eight million five hundred thousand U. S. dollars. (\$8,500,000)
 - b. Terms: The loan will be repayable in 40 years, including a grace period of 10 years, at an interest rate of two percent (2%) during the grace period and three percent (3%) thereafter.
3. DESCRIPTION OF THE PROJECT: The proposed project consists of three priority sectors in the field of education in Panama:
 - a. Improving the quality of primary, secondary and normal school education.
 - b. Improving administration of the Ministry of Education.
 - c. Expansion of facilities for education.
4. PURPOSE: The basic purpose of this loan is to assist the Government of Panama (G.O.P.) in the implementation of the first phase of the National Plan for Education, the overall goal of which is to insure adequate resources and orderly growth of education in Panama to achieve maximum development of the human resources of the Republic.
5. FINANCIAL PLAN: The proposed financial plan is as follows:

| | <u>Local Cost</u> | <u>Dollar Cost</u> | <u>Total</u> | <u>%</u> |
|-----|-------------------|--------------------|------------------|-----------|
| AID | \$ 4,802,000 | \$3,698,000 | \$ 8,500,000 | 49 |
| GOP | <u>8,364,000</u> | <u>536,000</u> | <u>8,900,000</u> | <u>51</u> |
| | \$13,166,000 | \$4,234,000 | \$17,400,000 | 100 |

6. **OTHER SOURCES OF FUNDS:** IDB is financing \$3.4 million of the vocational technical education program provided for in the National Plan for Education. UNICEF, OEA and others are together financing \$1.0 million and PNUD \$941,234 of a joint project for training primary supervisors and administrators. UNESCO, ODECA and others are financing \$431,000 for various other related projects.
7. **STATUTORY CRITERIA:** All statutory criteria, as set forth in Annex III of this paper, have been met.
8. **VIEWS OF THE COUNTRY TEAM:** The proposed loan will be the principal instrument of the 1970 United States Assistance program for stimulating the development of Panama's education sector. The Country Team has recommended approval of the loan.
9. **ISSUES:**
 - a. The capacity of the Ministry of Education to absorb the magnitude of technical assistance proposed to be undertaken within the time limitations imposed.
 - b. The ability of the GOP to construct the number of schools provided for within the time span of the loan project.
 - c. The willingness of the Ministry of Education to accept and implement the recommended reorganization and changes in management as well as the changes in the program to improve the quality of education.
10. **LOAN ADMINISTRATION:** Usual disbursement and procurement procedures will be followed in this loan.
11. **RECOMMENDATIONS:** On the basis of the conclusions of the Capital Assistance Committee that the project is technically, economically, and financially justified, it is recommended that a loan to the Government of the Republic of Panama for an amount not to exceed eight million five hundred thousand dollars (\$8,500,000) be authorized subject to the following terms and conditions:

A. Conditions:

- (1) Prior to the issuance of any commitment document or disbursement under the loan, the Borrower shall submit evidence satisfactory to AID of a time-phased implementation plan covering each component of this project, showing inter-relationship with and priority relative to other components.
- (2) Prior to the issuance of any commitment document or disbursement under the loan for construction services or commodities for a particular construction subproject, the Borrower shall, except as AID may otherwise agree in writing, furnish to AID in form and substance satisfactory to AID:
 - (a) Plans and specifications, bid documents, cost estimates, and time schedules for carrying out the subproject;
 - (b) An executed contract for construction or other services for the subproject acceptable to AID with a firm acceptable to AID;
 - (c) Evidence that the Borrower has obtained all real property rights, including easements and rights of way, required for the construction and operation of the subproject.
 - (d) A maintenance plan satisfactory to AID and evidence of sufficient budgetary support to accomplish adequate maintenance practices.

B. Covenants: The Borrower shall agree to:

- (1) Make timely and adequate appropriation of funds in conformance with the implementation plan referred to above.
- (2) Faithfully carry out all terms and conditions of the Loan Agreement.

C. Other Terms and Conditions:

- (1) The continuation of the project will be subject to annual joint review by Borrower and AID or such interim reviews as may be agreeable to both parties to determine if there has been adequate progress in achieving the project goals.
- (2) The loan shall be subject to such other terms and conditions as AID may deem advisable.

12. OBJECTIVES:

a. Administration: reorganization of the Ministry of Education, primarily through decentralization into eight provincial units; promotion of planning and evaluation; assistance in establishing a building maintenance program.

b. Quality of Education: curriculum development; teacher education including upgrading 48 teacher trainers, 3,000 primary teachers and 1,000 secondary teachers; teaching materials and audio-visual aids; educational research and technology introducing new techniques and pilot research activities.

c. Expansion of Facilities: construction of 8 provincial units of the Ministry, a normal school, 39 primary schools with 634 classrooms, 10 secondary schools with 175 classrooms and a Ministry of Education building (the latter to be GOP financed); furniture and equipment for the new facilities.

13. GOP COMMITMENT:

The budgetary resource allocation by the GOP for education during the project period is estimated to be 27% of the national budget based upon past experience and current expectations. This is indicative of the strong commitment to education by Panama.

PROJECT COMMITTEE

| | |
|---------------------------|-------------------|
| Loan Officer | John Shannon |
| Human Resources Division: | Charles C. Briggs |
| Economist: | Parke D. Massey |
| Engineer: | Charles Stevens |
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PART II: THE PROJECT

SECTION I - LOAN RATIONALE

A. Importance of Education to Panama's Economic and Social Development

With a population growth rate of 3.2% per year, and with half of the total population 18 years and younger, Panama is faced with a heavy burden in providing the educational opportunities necessary to enable its population to become effective and productive citizens.

As Panama's earlier efforts in education have been a factor in sustaining an average annual economic growth rate in excess of 7.7% during the decade of the sixties, so the demands for expanded and higher quality education have increased. A viable economy such as Panama's actively seeks more and better trained people. While in comparison to other Latin American countries, Panama's educational attainment statistics are positive, they also point to inefficiencies in administration, inequities in opportunity for rural youth, and lack of relevancy to trained manpower demands.

There exists a potential for unprecedented economic growth for Panama in the decade of the seventies and beyond. However to realize such a potential, the nation must structure its educational system, allocate its resources and transfer knowledge, skills and attitudes in such a manner that development proceeds fairly uniformly and rationally in all sectors. Manpower studies recently completed in Panama demonstrate that the educational output is becoming more closely attuned to the labor market demand, that earning power of Panamanians is directly correlated to educational attainment.

B. Considerations given to Education by GOP and AID

A number of aspects of the Panamanian education system attest to the high value which the government places on educating its population:

1. The Organic Law provides for free and compulsory education for all youths ages 7-15.
2. University education is free to students who wish to continue their higher education.
3. The educational system has a relatively good flow of students throughout all of its levels as compared to other Latin American countries.
4. The majority of the professional staff at all instruction levels has earned certification or a degree from a normal school or the University.

5. The Government has enacted a law to provide additional funds to expand and improve vocational and industrial education with the view of producing a more adequately trained labor force.

6. Educational authorities have sought and responded favorably to assistance by UNESCO, IDB and other international organizations.

Among Latin American countries, Panama scores quite well on the quantitative scale among the traditional educational indices; in fact, using the universally accepted Harbison and Myers human resource development study, Panama compares most favorably among the 21 countries worldwide listed as semi-advanced. Panama has either been at or very near the top of Latin American countries in the percentage of its national budget devoted to education. It is among a handful of countries which has recently undertaken an intensive and in-depth study of its education system, including the delineation of its major weaknesses and the establishment of objectives over a significant time span.

In February, 1969 the Ministry of Education and the Government of Panama adopted the National Plan for Education, which proposes a fifteen year development program covering all areas of education, including the expansion of the institutional structure, a streamlining and decentralization of the administrative system, the injection of modern teaching aids into the educational program, and the upgrading of teachers and curriculum commensurate with the planned growth.

At the University of Panama, a revamped administrative system is now operating subsequent to its reopening in July 1969. In the place of a completely autonomous system, there is a six-man Executive Board headed by the Minister of Education. One of the first acts taken by the Board was the issuance of new university regulations governing standards for continued matriculation. One direct result of the higher standards is that only 6,000 of the 9,000 students previously enrolled were permitted to continue their studies. IDB has received a loan proposal from the University to further assist in the improvement of the academic and administrative structures. There are also programs planned for upgrading institutional and research personnel, increase in laboratory equipment and major campus expansion.

Another recent development is an Inter-University Council with representation from the University of Panama, University of Santa Maria La Antigua, Florida State University (which maintains a branch campus in the Canal Zone), and the Canal Zone College. Its purpose is to focus on ways and means for the four higher education institutions to cooperate more fully on matters of mutual interest.

Panama concluded a project agreement on August 12, 1969, with UNESCO-UNICEF for the Extension and Improvement of Supervision and Administration at both the Primary and Secondary Levels. Under its terms, UNESCO will administer training to selected groups of Ministry personnel in both summer sessions and full-year courses at the University of Panama over the period extending through December 31, 1971.

This past December, a loan agreement was signed between the Government and the Inter-American Development Bank for the expansion of vocational education. Besides providing technical assistance, the loan funds will be utilized in constructing three new vocational schools, a nautical school, expanding and improving three trades and art schools, and in equipping four existing vocational schools.

Commencing with the Educational Planning Project in 1967, AID education efforts in Panama have moved away from single objective projects to programs encompassing a sector or system. Under this project, an appraisal of the GOP educational system was completed, recommending both the major elements and timing for an implementation program directed toward total reform of the educational system.

In May 1969, a new private university--the University of Santa Maria La Antigua--signed a Loan Agreement with USAID to assist in the construction and equipping of the first four buildings on its new campus. At this University, there has been recently established a textbook rental library center in cooperation with AID's Regional Technical Aids Center (RTAC/Mexico).

A serious deficiency in the education system is the lack of adequate instructional materials. A primary school textbook program financed by ODECA-ROCAP is well underway which, when completed during fiscal year 1972, should significantly reduce this problem. AID is providing commodity support for the Panama portion of the textbook program, as well as providing technical assistance for the operation of the new GOP-financed \$200,000 graphic arts center.

C. Rationale for Magnitude and Duration of Loan

The Ministry of Education has the task of providing Panamanian youth with the education and training essential to their making a maximum contribution to the social and economic development of their nation. This is inherent in the Ministry's adoption of an orderly plan for educational development in the fifteen years ahead.

The plan will require more than the projected budget allocations to permit the Ministry to meet and go beyond present demands. Capital investments in the past have allowed for little more than holding operations in the face of enormous and growing needs.

Panama's economy has made rapid growth in the last decade, and signs point to even greater growth in the decades ahead. However, the rising population growth, coupled with the increasing demand for better trained professionals and higher skilled workers, has brought enormous pressure in all sections of educational activity. The public sector of education will need greater financial support to cope with the expansion of school facilities, the essential provision for trained teachers and instructional

material, and innovations necessary to enable education to achieve a higher quality level and greater productivity.

In order to finance the National Plan for Education, it is estimated that 236,947,000 balboas will have to be spent over the period 1970-1983. The best estimates obtainable at the time of Plan adoption indicated that nearly 41,750,000 balboas (\$41,750,000) would be required from external sources.

The largest amounts of external financing will be required in the years between 1970 and 1974, as school construction and new equipment are the costliest item of immediate urgency. Panama cannot itself support such an ambitious program out of current tax income. However, as its revenues rise later in the 1980's, the Government of Panama will be in a much stronger financial position to repay the loans required.

The Government of Panama has already negotiated for external financing from the Inter-American Development Bank, UNESCO-UNICEF, UNDP, OAS and ODECA to the amount of \$5,715,000 in order to carry out certain portions of the National Plan. Counterpart funds from GOP total 4,650,000 balboas for these programs. See Annex V, Tables 1 and 2.

Consistent with other Plan elements for the period of first phase implementation, the Government submitted a loan application to AID for \$10,200,000. Subsequent negotiations have resulted in a reduction of this amount to \$8,500,000 with a concomitant increase in the GOP contribution, which is 8,900,000 balboas.

As has been stated above, there is an urgency for implementing the first three-year phase of the National Plan due to the increased school population pressures. Another critical aspect of first phase implementation is the technical capacity of the Ministry of Education to execute, monitor and evaluate the various program elements required not only for this phase, but during the entire plan implementation. Added to these requirements is the need for supervisors, administrators, teachers, curriculum specialists and guidance counsellors to staff the expanded school facilities as they become available.

D. Implications for Future Education Budget Demands

To treat the subject matter of this subsection adequately, one should compare two tables which are included in Annex V. (Tables 3 & 4).

For example, Table 3 projects the total costs in implementing the National Plan, 1970-1983, breaking these costs down by level or major line item, as well as indicating the amounts anticipated for both internal (GOP) and external financing. Table 4, on the other hand, is a projection of anticipated government revenues over the same time span, assuming a 7% growth rate in gross domestic product through 1976, and 6% thereafter through 1983. Then, assuming further that the amount available to education approximates 27% of these revenues to the government--the percentage based on historical central government expenditures for the University and the Ministry of Education--the last row of figures in this table gives

us the expected amount available any given year for education, after adjusting for a 2% inflationary rate per year.

All things considered, it would appear reasonable to expect that Panama can undertake the National Plan. This, of course, assumes that the projections made are valid and remain so during the span of fifteen years. However, Panama's educational requirements may grow even faster than expected according to the National Plan. Enrollment projections and public demand for more schools than now planned may increase beyond that contemplated. Revenues may not materialize as expected due to unforeseen circumstances. Adjustments will, naturally, have to be made, which is true for any plan of this nature.

The Plan and the tables just referred to indicate that the largest amount of external financing is required during the years 1970-1974. This is to be expected, for it is during the initial years of plan implementation that the greatest pressures for both costly capital improvements and technical assistance are in evidence.

After the initial implementation phase, the amounts of external financing diminish assuming targets are met. Capital investments lessen because the gap in school construction is greatly reduced in the subsequent years. The professional staffs at the ministerial and provincial levels are also becoming more sophisticated with planning and managing, and thus external technical assistance needs are reduced and long-term training requirements diminish.

It is beyond the function of this paper to speculate as to what the potential is for future AID financing of subsequent phases of the National Plan. The paper is not being written with a view that AID financing is a requirement beyond the initial phase.

It is anticipated that some external financing will be required, but then multilateral lending agencies are already demonstrating their interest in the Plan and could conceivably provide follow-up loans during the life of the Plan. A great deal will depend on the Government's performance in meeting education reform targets and its economic future. Educational planning and programs should be based on assumptions about the future economic situation and labor demands. If rapid growth occurs, this will imply higher demand for professionally trained and skilled people, which, in turn, will imply a greater payoff from education programs. This cycle of growth begetting demand requires even tighter and more finite educational planning to ensure that lack of trained manpower does not create bottlenecks which could slow down or even cripple the entire economy.

SECTION II - EDUCATION SECTOR ANALYSIS

A. Background Data

1. Historical. The Jesuits founded the first high school in Panama in 1575. The school achieved academic excellence as evidenced by the many graduates who were able to continue their education at institutions of higher learning in Ecuador.

One of the early centers for learning in the Republic of Panama was in the Seminary of St. Augustine founded in 1715. The private Negroan destroyed the seminary along with the other major institutions when he attacked the city in 1571. This educational center was characterized by its close resemblance to the early universities that prevailed in many of the Latin American countries at that time.

Throughout the colonial period, education in the Republic was characterized by the small number of private schools, largely for the more privileged classes. Education for women was not introduced until later, and thus they had to depend on the home for finishing their work.

During the period 1821-1830, Panama was part of the Republic of Colombia. Education for most Panamanians remained at a rudimentary level those years, and the wealthy persons sent their sons to be educated in Spain, Quito, Bogotá and Lima.

The public school system of Panama grew slowly. In 1888, there were two Provinces, Panama and Veraguas. Panama Province had 32 public schools for boys and no schools for girls; there were, however, 15 private schools for girls, along with 27 for boys. Veraguas had 18 public schools for boys and one school for girls and a proportional amount of private schools for each sex. The budget to support the educational activities in both provinces amounted to \$15,000.

The real advances attained in the organization and development of the public and private education in the Republic began after 1903. Despite the many problems attendant to his achieving independence from Colombia, Panama's first president, Dr. Manuel Amador Guerrero, was able to do much to provide schools for the people. The 1928 Constitution provided the basis for free and compulsory education.

Since 1928 to date, national education entered into a process of liberal development and widespread improvement. In 1928, the first summer courses for non-graduate teachers, which have done so much in upgrading teaching personnel throughout the country, were introduced.

A great impulse was given to secondary and higher education with the establishment of the University of Panama in 1935 and the Normal School Juan D. Arosemena in 1938. During the decade of the thirties,

there was also significant growth of secondary education at the capitals of the provinces and important cities of the country.

Between the years of 1952 and 1954, an educational reform program transpired during which time there was introduced new curricula for the primary and secondary schools, the formulation of objectives for the secondary school cycle, and the organization of a new supervisory service broken down into subject areas of the secondary curricula.

The decade of the sixties began with a new reorientation of plans and programs at both educational levels, and emphasis on building more primary, secondary and vocational schools, as well as an increase in teaching personnel. The decade culminated in what is called the National Plan for Education, which is to be the principal guide for restructuring the educational system of Panama for the next fifteen years.

2. Policy. In the historical sketch just completed, mention was made of the 1904 Constitution and its provision for free and compulsory education. Organic Law No. 11 was the first education law of the Republic. It also provided for the inspection of elementary schools, contractual procedures for obtaining the services of foreign teachers and professors, establishment of the normal school system, and empowered the governing body to establish schools for higher, secondary and vocational education.

Several beneficial laws have taken effect during more modern times, but the most important has been Organic Education Law 47, decreed in 1947, which still serves as the basis for modern Panamanian education. During that same year, and until 1951, a Commission for the Investigation of National Education functioned, the express mission of which was to formulate the national education objectives.

3. Institutional.

a. Legal Basis. The authority and responsibility for educational development is vested in the Ministry of Education. Much of the Minister's current authority is a result of Title II of the Organic Education Law of September 24, 1946. By this law, the Minister serves as the President of the National Board of Education, which acts as an advisory body to the Ministry. In 1967, a similar board was created for vocational education.

The legal concept for educational operation by the Ministry is flexible and provides for delegation of specific responsibilities at both the Ministry and local level. Structurally, the line of authority extends from the Minister and Vice-Minister to the Director General.

From the Director General, the delegation of responsibility goes to (1) the Director of Primary Education, who has authority over the Provincial Inspectors, of which there are ten (Bocas del Toro, Coclé, Colón, Chiriquí, Darién, Herrera, Los Santos, Panamá, Veraguas and San Blas); (2) the Director of Secondary Education, who has authority over secondary and vocational school principals; and (3) the Director of Private Education, who oversees pre-primary, primary and secondary private schools. An organization chart is included in Annex VI, Chart 1.

b. Composition of Public and Private Education System.

Panama has a complete educational system from pre-school to university, although pre-primary education is not part of the regular school system. In 1966, there were 100 pre-primary schools (30 public and 70 private). In existence at that time were 1,620 primary schools (1,552 public and 68 private). By 1968, this figure had increased to 1,692. Of this total, 94.1% were located in rural areas. The 6-year primary cycle is compulsory for ages 7-15.

Secondary education, grades 7 through 12, consists of two 3-year cycles. Cycle 1 provides basic general studies; Cycle 2 is divided into academic, professional and vocational courses. As of 1966, there were a total of 181 schools offering complete first and/or second cycles, of which 139 were operated privately. Eight more schools were added during 1967-1968. There are two universities, one of which is private. Special education for the physically and mentally handicapped is offered at the Panamanian Institute of Special Education, while adult education classes are held in the primary school buildings in the various provinces.

(1) Enrollment Data

Tables 1 and 2 of Annex VI present the total enrollment at the various levels of the educational system for both public and private schools from 1955 to 1967. Approximately 76% of the total student enrollment in 1966 was at the primary and pre-primary levels. Only a small proportion--7.4%--were enrolled in private primary schools. A significantly higher percentage of children enrolled in pre-primary are in private schools, approximately 60%. Data on enrollments by age group and by province are given in Tables 3 through 7. With the exception of age 12, each age classification shows improved enrollment statistics between 1963 and 1968.

Generally, primary enrollment has been increasing between 3.5% to 4% per year, slightly higher than the population growth rate of 3.2%. In 1968, there was a total enrollment of 222,513, 92.6% of which attended public primary schools. Pre-primary enrollment accounted for

an additional 5,173; about 40% attended public schools.

Enrollment data for the secondary cycle according to province and age are presented in Tables 8 through 14 of Annex VI. Quite significant gains have been made at each age level throughout the country between 1963 and 1968, attesting to both increased educational interest and opportunity. Between 1957 and 1968, enrollments at this level increased 144%. During the latter year, 66,578 students were enrolled in all phases of the secondary school program. Sixty percent of these were in public schools. At the University of Panama, the growth in enrollment has been fairly constant and considerable, averaging 21% per year from 1957 to 1967. Table 15 provides enrollment data for the university and its colleges. In addition to its regular enrollment, the university had 1,741 students in its six extension centers in 1966, and 5,287 students taking courses in the summer school program. While very young, the University of Santa Maria La Antigua has shown a doubling of its enrollment between 1965, when it opened its doors, until 1967, when 452 students enrolled.

Enrollment data just presented do not, of course, give a complete picture of the educational system. The holding power of the various cycles, the ratio of graduates to those who initially entered, and the variation among grades of drop-outs are all vital statistics when one is analyzing the system. Figures 6-10, Annex IV graphically display the retention and graduation rates for primary schools at six year intervals. Between 1962, the end of the first 6-year cycle for which we have data, and 1966, the last complete year, the graduation rate remained exactly the same--43.4%. Figure 11 demonstrates during which grades the greatest attrition occurs.

About 69% of those completing primary school go on to secondary, constituting about 29% of the 13-18 age group. The most notable loss of students in the secondary level occurs between the first and second year of the first cycle; 30% of those who matriculated for the first year fail to do so in the second. With respect to the second cycle, the rate of attrition is 11%, with an additional 27% considered partial promotions. However, between cycles at the secondary level, the system experiences a big loss--38%. The breakdown for this percentage is as follows: 10% fail and must repeat the third year; 23% receive partial promotions and must repeat up to three subjects; 5% are apparent dropouts. Table 16, Annex VI portrays the secondary level flow-through.

A longitudinal perspective of the attrition problem is presented in Annex IV, Figures 22-24, inclusive. The first two indicate the extent of grade repeating, school desertions, promotions and failures over a ten-year period in both rural and urban schools. Figure 24 gives a consolidated picture of these same rates. The trend in both repeater and dropout rates is greater than the relative increase in promotions.

(2) Teacher Data

Data on number of teachers and school directors, broken down by number of grades taught in official primary schools for years 1963-1967, are presented in Tables 17 through 19 of Annex VI. Slightly more than 97% of all professionals in this cycle have at least completed normal school training. Table 20 provides data on qualifications of primary school teachers for 1963-1967. Of these, less than 5% hold either university pedagogy degrees or complete university degrees. Proportionally, a higher percentage of teachers and staff in the public school system are trained than is the case in the private primary schools.

The educational attainment of secondary school teachers is, quite naturally, higher. As shown in Tables 21 and 22 of Annex VI, of the 3,015 personnel licenced to teach in private and public secondary and vocational schools, 65% have university degrees or certificates of one year of special university training.

As is the case with primary, a greater percentage of teachers in the public secondary schools are so qualified than teachers in the private schools.

Student/teacher ratios vary considerably among the provinces, as well as the particular cycle being considered. For the country at large, the ratio is 30:1 in the public primary schools; for private schools, it is 29:1. The range, however, among public primary is between 26-37:1, while in the private schools the range is even greater--13-45:1. The above data are for 1967. In the secondary school system, the variance is not so pronounced. For public schools, the range is between 15-22:1, with the national average standing at 21:1. In the case of private secondary, the country average is 20:1; the range being from 15 to 26:1.

Before leaving the subject of teachers, notice should be taken of the varying salary levels within the profession. Table 23 of Annex VI has comprehensive data; however, some generalizations are pertinent herein. Among primary teachers, the salary range is from B/125 per month for a teacher without title of the 3rd category to B/225 for one with a title of Professor of Pedagogy. The range among secondary teachers is not as great, as might be expected, since the qualifications standards are more uniform. However, the range among vocational teachers is the largest in any category--from B/175 to B/300 per month.

(3) Facilities

In paragraph b., Section II-A-3 above, the numbers of schools (pre-primary, primary, secondary), and their respective breakdowns as

either public or private, rural or urban, were cited. For details as to official primary schools holding single or double sessions broken down by province, refer to Table 24, Annex VI. Classroom rental for both primary and secondary facilities constitutes a major expenditure of the Ministry. Tables 25 and 26 provide the details and cost data relevant to this category, which approached B/.205,000.00 for the year 1967.

The final tabulation in this particular category concerns incomplete schools, predominantly a rural phenomenon. Table 27 of Annex VI indicates by province the numbers of incomplete primary schools for the year 1967. Only two schools, both in Panama Province, are considered incomplete which are classified as urban. All the 613 others are classified as rural schools.

4. Recent Progress and Trends. Mention has already been made of the recently completed in-depth analysis of Panama's educational system which has led to the adoption of the National Plan for Education. A number of recommendations originating with this plan have already been implemented. These recommendations with their corresponding accomplishments can be conveniently grouped according to the following basic objectives:

a. Increase the Management Effectiveness of the System.

Action taken: (1) a commission for the formulation of national goals and objectives was formed and is presently updating such; (2) development of a communication system within the Ministry has been initiated; (3) selection and appointment of professionally qualified personnel to fill key staff positions is underway; (4) in-service training program of the Ministry is being expanded with seminars, conferences and workshops in-country as well as out-of-country; (5) a central purchasing agency has been established; (6) a coordinator of supervisory services has been nominated; (7) supervisory personnel of the administrations of primary, secondary and private education have been integrated into one body for more effective technical guidance; (8) a course in administration and supervision is being given at the University of Panama.

b. Enhance Educational Quality

Action taken: (1) a study is being conducted to determine the causes of scholastic failures; (2) establishment of a curriculum commission for teacher education; (3) educational material expenditures rose from B/.0.29 per pupil to B/.1.04 per pupil starting the first of this year; (4) creation of a National Department of Technical and Professional Education; (5) initiation of a pilot project in the Bocas del Toro province which is an experimentation with pre-school opportunities for under-privileged children to determine the effect on the rate of

learning in the early primary grades; (6) creation of the Pedagogic Rehabilitation Section and the Tests and Measurements Section; (7) development of a coordinated program with the Panamanian Institute of Special Education for exceptionally gifted children.

c. Expand Educational Opportunity.

Action taken: (1) creation of a School Construction and Maintenance Bureau; (2) the budget of the Ministry has been increased for 1970 by the sum of B/4,251,058, which represents a 12.7% increase over the previous year budget; (3) negotiation of a loan with IDB for the improvement and expansion of facilities for technical vocational education; (4) continuation of the plan of investments for the Rural School Construction Plan; (5) construction of facilities for the Educational Printing Office, including equipment, which will allow the Ministry to meet future textbook requirements; (6) study for offering salary incentives to teachers who must suffer hardships by living in remote areas.

5. AID Assistance. Under Section I, Paragraph B., the trend of educational assistance provided by AID to the Government was discussed, as well as an outline of the major elements of this assistance. This specific AID assistance has been grouped under a USAID project entitled Education Development and Implementation, the primary objective of which is to assist the Panamanian Government and people to determine levels and types of education to be provided in Panama. As the National Plan for Education is the corner-stone for the structuring of assistance to Panamanian education over the next fifteen years, both external and internal, the AID strategy is to provide technical and financial assistance in response to requests by the Ministry of Education when such assistance is in support of its efforts to achieve the goals and objectives of the Plan.

The Education Development and Implementation Project will be closely coordinated with other AID Projects that either affect or are affected by the education project in order to maximize the effectiveness of all such projects and to eliminate overlapping and duplication of effort. In particular, the Ministry of Education will receive assistance in management improvement and administrative reform under the AID Loan for Development Administration. This loan includes direct technical assistance and training in management analysis, procedures and directives, personnel administration (including retirement and benefits), and the management of construction and maintenance operations. The planned educational loan would supplement such assistance by providing training and technical assistance to middle and lower echelon Ministry management.

Coordination will also be affected by the expanding Manpower Training Program being implemented by the Instituto de Formación y Aprovechamiento de Recursos Humanos (IFARHU) which was receiving AID assistance under the Manpower Development project (525-15-460-118).

Coordination will insure a minimum of overlap between the vocational education activities of IFARHU and those carried out within the Panamanian school system.

Assistance to schools of agriculture will normally be provided through the agricultural development project (525-11-790-070) to the extent that such assistance can be divorced from other programs sponsored by the Ministry of Education. All of such assistance to schools or faculties of agriculture will be very carefully coordinated with the USAID Rural Development Division.

Incorporated in the National Plan are procedures for decentralizing the Ministry by placing more responsibility for administration at the provincial level. This would be a first step aimed at bringing the school closer to the community. In this regard, coordination will be effected with the USAID's Community Development Project (525-15-810-121) in encouraging GOP's Directorate General of Community Development to work directly with teachers and local school administrators to increase their involvement and leadership in local community development activities. The Ministry of Education will be encouraged to include in the teacher education training programs certain professional courses which provide prospective teachers with methods and procedures for achieving closer school community relationships and developing community action programs.

The USAID health, nutrition and population activities will be utilized in support of activities conducted under the Education Development Project. Steps are being taken to include in teacher education programs the basic knowledge about nutrition, hygiene and health that can be taught children. Where appropriate, participant training will be provided in these areas. Where the Ministry of Health, Ministry of Education and the Panamanian Family Planning Association (APLAFA) take the initiative, AID will provide financial support under the Population Project (525-15-580-142) for efforts to promote and conduct sex education and family life training programs as a part of the curriculum offered by the Panamanian school system.

6. Financial Inputs and Returns.

a. Education Budget. Table I of Annex VII depicts Government of Panama expenditures for education between years 1963 and 1968 in relation to total national budget and GNP. Over the span of ten years, 1957 to 1967, there has been an increase of 170% in the total amount budgeted for education. Each cycle has received a proportionate increase over the same time period, but higher education has received the most

significant increase. The accompanying table provides comparative data:

BUDGET FOR EDUCATION

| <u>Category</u> | <u>1957</u> | <u>1967</u> | <u>% Increase</u> |
|-----------------------|---------------|---------------|-------------------|
| Total Education | B/.11,461,148 | B/.31,390,402 | 170 |
| Ministry of Education | 10,777,148 | 28,609,765 | 165 |
| Administration | 295,760 | 758,403 | 156 |
| Primary Education | 6,183,181 | 14,891,130 | 141 |
| Secondary Education | 2,532,527 | 7,014,578 | 177 |
| Higher Education | 684,000 | 2,957,939 | 332 |

A more comprehensive treatment of budget distribution for the years 1963-1968 is included in Table 2 of Annex VII. A comparison of the annual budgets of various ministries over the period 1962 through 1966, shows Education realizing an increase of 41.2%, while Public Health increased 22.4%, Government and Justice 42.4%, Public Works 39.2%, Treasury 36.3%, Agriculture 108.1% and Foreign Relations increased 58.7%. (Table 3, Annex VII).

In addition to funds provided to the Ministry of Education, municipalities also provide a significant contribution through local taxation to primary education. The Organic Law provides that 20% of tax money raised in any municipality is to be made available for school purposes. Thus, the Ministry of Education budget is augmented with a sum that is approximately equivalent to 3% of its budget from these tax revenues. In addition, public secondary education has a source of funds external to the Ministry's budget for secondary education which comes from the matriculation fee charged each student--B/.5.00 assessed annually from each student enrolled at the beginning of the school year. This source of financing amounted to B/.210,735 in 1968, of which 75% went to libraries and laboratories and 25% to student welfare. Table 4, Annex VII provides data on these extra-budget inputs for 1963-1968.

An interesting and yet complex cost item is the per-pupil cost at each level. While the per-pupil cost for the nation in Primary Education was B/.73.13 in 1968, the range was from B/.52.50 in Colon to B/.74.96 in Los Santos, as shown in Table Annex VII. Of the national average cost, teacher salaries accounted for approximately 97.5%. This category plus other administrative expenses and capital construction outlays are itemized in Table 6. The overall per-pupil cost for secondary education was B/.197.32 in 1968. These costs are shown for the various provinces in Table 7. The range is even more pronounced than with primary. For example, Darien shows a high per-pupil cost of B/.379.31, due primarily to the fact that the province has but one secondary school which offers only the first cycle. Yet, Bocas del Toro, the other outermost province, has only one high school as well, which operates a first cycle and two years of a second cycle. Student enrollment there has remained rather constant, keeping the per-pupil cost within the national average.

The unit cost per student enrolled at the University shows wide fluctuations, due mainly to the wide-spread use of expensive laboratories and experimental materials in certain colleges. Table 8 depicts the varying per-pupil costs among the different colleges, which in the entire University average B/.355.02 per student.

7. Development Plans.

The National Plan for Education contains the project details and cost estimates for major long and short term recommendations. As conceived in their totality, these recommendations are designed to promote:

- a. The development of a greater capacity for leadership, coordination and administration of education through the delegation of authority and functions to newly established Ministry and provincial units.
- b. The qualitative improvement of education at all levels and the quantitative expansion where there are at present inadequate provisions.
- c. The development of an integrated, effective public school system in the context of a rapidly changing Panama.
- d. Greater prominence to vocational and technical education in light of the need for the educational system to respond to human resource needs.

Specifically, the following targets and objectives have been established to be realized by 1983:

(1) An efficient, well organized Ministry of Education with the capacity to provide leadership for educational development and to coordinate the activities of Ministry and Inter-Ministry activities.

(2) The provision of free and compulsory education for 90% of the children in the age group 7-15. This would assume that the private school system will continue to contribute its services on the same basis of the past.

(3) Increased and diversified provisions for the secondary school enrollment of 49% of the 13-18 year old population.

(4) A well developed guidance program with highly qualified personnel at all levels to help students assess their capacities and to select a career commensurate with their abilities and aptitudes and the needs of the labor force.

(5) The school is the most important building in which the child spends his time. It should add to the student's life a measure of beauty; should engender respect for education and encourage performance. All

school plants should be adequate to carry on an effective modern instructional program. The Ministry of Education should initiate efforts to clear itself of all school rental obligations at the half-way period of National Plan Implementation.

(6) All schools should be adequately equipped and furnished and teachers supplied with appropriate instructional materials and visual aids in terms of Panamanian realities.

(7) A teaching force should be employed that is fully qualified academically, technically and professionally with appropriate incentive system that will encourage teachers to locate in all areas of the Republic.

(8) Articulation and integration of education at all levels of education with emphasis on quality, especially at the first cycle level, where large numbers leave school to join the labor force. These two aspects should be principal goals in educational development.

(9) A well-established department, with qualified personnel to conduct experimental studies, research and evaluation to assess the effectiveness of the school programs, the results of which, would serve to give impetus to educational progress.

(10) The distribution and location of educational resources throughout the country, in order to bring more wide-spread benefit to youth and adults.

An integral part of the National Plan for Education is a series of "National Plan Implementation Bulletins." These documents describe in greater details, ways and means of pursuing solutions to the problems that were identified. The bulletins have facilitated the work of groups charged with the responsibility of the implementation stage of the Plan.

The Pennsylvania State University technical assistance team, working as an integral part of the Ministry of Education staff, and upon advice and direction of USAID, assisted in the preparation of a draft global loan application, from which the various lending agencies could select portions of the National Plan for funding assistance to the Government of Panama.

In June, 1969, such a global loan application draft was formally presented to the Minister of Education by the technical assistance team. Late in June, the Minister forwarded the application to Planificacion. Upon a specific request from the Ministry of Education a special draft loan application was prepared for presentation to the Inter-American Development Bank on that portion of the package which was to assist the Government in improving and expanding vocational education.

By June 25, officials of the World Bank were studying the application, which dealt primarily with general secondary, or second cycle, education. The World Bank has shown no inclination to provide such assistance over the next several years.

The third part of the loan package, that treating primary education principally, as well as teacher training, technical assistance to the Ministry of Education, and other qualitative improvements in the system, was intended for AID financing. After considerable discussion and review by the Presidential Planning Office, certain revisions were made to the original package as presented to and accepted by the Ministry of Education. On April 9, 1970, a loan application was submitted to USAID. Its principal elements with respect to construction are AID assistance to the Government in constructing 634 primary school classrooms, 175 secondary school classrooms, one normal school, and eight provincial units. Qualitative measures include curriculum development, teacher education, teaching materials, and education research and technology. A sizeable portion of technical assistance is earmarked for improving administration, planning and management of the Ministry of Education.

B. Identification of Major Problems

I. National Plan

As one of the principal objectives in preparing the National Plan for Education was an assessment of the educational system, a key element of the plan was the identification of major problems impeding Panamanian educators from developing an adequate and responsive sector.

These problem areas singled out in the Plan are as follows:

(1) the lack of esprit de corps in the professional teacher ranks, or the need for "professionalism";

(2) the need to formulate national goals and objectives which relate more closely to the nation's overall social and economic demands;

(3) the need to improve and advance educational administration in the Ministry of Education to provide a higher level of organization, leadership and coordination;

(4) the need for a through evaluation of the school curriculum, and to update such so that it is more compatible with today's unprecedented social and economic change and more abreast with the technological explosion underway;

(5) the need to increase the ability of the country to support adequately its ongoing educational activities and finance development plans for the future;

(6) the need to upgrade teacher qualifications and incorporate new pedagogical techniques to enhance the learning process;

(7) the need for educational research to improve the quality of education through the testing, evaluation and adoption of innovations;

(8) the need to increase the holding power at various educational levels, thereby reducing costly wastage of human and financial resources.

2. Loan Application

In its loan application to AID, the Ministry of Education further amplified the above problem areas and identified in more specific terms the most pressing problems facing the system during the next fifteen years of planned expansion.

(1) Organization and Administration of the Educational System

- a. Reorganization of the Ministry of Education with emphasis on decentralization.
- b. Goals and priorities are not clearly defined.
- c. Planning is in need of refinement and continuous development.
- d. Lack of clearly defined criteria limits the evaluation of programs.
- e. Need to establish an effective system of communication.
- f. Need to develop greater efficiency in the following service support areas: budgeting, auditing, accounting and purchasing.
- g. Lack of effective coordination between the Ministry of Education and private sector and between the Ministry and other governmental entities.
- h. Need to develop adequate opportunities to enhance the professional growth of administrative and technical personnel of the Ministry.

(2) Administrators, Supervisors and Teachers

- a. Need to increase the number of administrators and supervisors.
- b. Preparation of primary school teachers is only at the secondary school level.

c. Need to emphasize professional courses in secondary teacher preparation.

d. Little opportunity for professional improvement of personnel in-service at all levels.

e. Need to provide greater incentives for personnel to work in rural areas.

f. Need for adequate guidance service at all levels.

g. Need for more rational distribution of teaching and administrative services (number of pupils per teacher, double shifts for administrative and teacher personnel.)

h. Need to adjust social benefits (retirements, licences, sick benefits, etc.)

i. Need to prepare teachers in the following specialties: art, music, reading, physical education and the teaching of children with special problems.

j. Need to prepare specialized personnel in Vocational-Technical Education.

k. Lack of adequate health services.

(3) Curriculum Development

a. Need to integrate specific objectives at each level.

b. Need for greater flexibility in the curriculum to allow for individual and social needs.

c. Excess of subjects and hours in class per week.

d. Need for greater articulation between subjects and between educational levels.

e. Need for periodic evaluation to ensure necessary adjustments.

f. Need for professional training of personnel.

g. Need to integrate private education with public education.

(4) Teaching Materials and Audio-Visual Aids

a. Insufficient materials (only \$0.76 per pupil per year - 1967).

b. Need to develop new libraries and to equip existing libraries.

c. Insufficient audio-visual aids.

d. Need for teacher training in the use of materials and audio-visual aids.

(5) Facilities, Furniture and Equipment

a. High percentage of incomplete primary schools (44% in 1966), depriving education to 30,000 individuals.

b. High percentage of primary schools are rented (21% amounting to \$150,000 in 1966).

c. Most if not all secondary schools in urban areas operate on double shift. (Space for only 29% of population age group between 13 and 18 years.

d. Need for more adequate facilities for supervisory and administrative services.

e. No facilities exist for complete decentralization of supervisory, administrative and related functions.

f. Lack of adequate school maintenance, and need to improve the planning and construction of new schools.

(6) Educational Research

a. Need to develop the capacity to perform educational research.

b. Need to explore the use of new technology.

c. Need to improve the quality of education at minimum unit cost.

d. Need for analyzing problems such as: Retention of students (only 43% of those entering primary school graduate and 22% of those entering secondary school), increase in school year, extension of education for adults, etc.

3. USAID Staff Analysis

a. General. USAID and consulting staff from AID/Washington undertook their own analysis independent of those performed by the Ministry of Education and its technical assistance team from Penn State. This was done not with the idea of verifying problem identification or assessing

the professional competence of the Ministry personnel and the Penn State team, but rather in an attempt to provide some relative order of priority among the many and complex problems. Also, an integral part of this exercise is to ensure that the activities undertaken by the Ministry and USAID in cooperation will, in fact, attack and reduce these priority problem areas.

The number one priority area is the need to improve management within the sector at all echelons. Without professional competency, dedication and the essential management tools, the National Plan for Education will remain merely rhetoric. Budgeting for and allocating the necessary resources, both fiscal and human; defining goals and objectives; measuring progress towards goal achievement; adjusting programs based on an effective communication network in the field; setting standards of performance and realistically rewarding qualities of excellence; planning, constructing and maintaining the physical plant; and demonstrating responsiveness to techniques and technology which may improve the system--all these attributes deserve the utmost attention and concerted effort.

The task ahead is much too big for a wholly centralized staff, regardless of how professionally competent it becomes. Delegation of authority and responsibility to the centers of action, where the learning process actually transpires, is essential, not only from the standpoint of reducing the problem areas into manageable pieces, but also from the standpoint of developing the future leaders of the system. Furthermore, the closer the management levels gets to the community, the better chances for positive parental involvement, a factor which can assist in reducing the dropout problem. Thus, a corollary development of administrative and technical capacity needs attention at each provincial unit and in each school.

Close in priority to the management problem, is that of improving the quality and relevancy of education. The goal is to achieve a better quality product at the end of the educational system. To maintain and augment its economic and social progress, Panama needs a labor force skilled in the professions, technologies, commerce and services. The school system is the principal progenitor of such trained manpower.

In terms of monetary investment, it is costing Panama an unnecessarily high amount to obtain a graduate who is able to enter the labor force and be economically productive. Part of the high cost is directly attributable to the high attrition rate, encompassing both leavers and repeaters. While not directly measurable, the lack of subject matter relevance to the real, work-a-day world has much to do with unsustained student and parental interest in the school system. Another debilitating factor to this problem of dropout and even non-attendance is the lack of educational opportunity, particularly in the rural sections of the country. Teachers employed in these areas are less well trained; educational

materials are virtually non-existent; academic and vocational counselling are for all intent and purposes unavailable; and subjects are presented with little or no attention paid to individual differences. The situation gets worse at the secondary level.

Tied to the above problem, but one of more direct visibility and solution, is the next priority area, the lack of facilities to support the educational process. Not only is a significant portion of Panama's youth "locked out" because of the lack of complete schools, but those attending complete schools, particularly in the rural areas, find either fastly deteriorating facilities or rented classrooms which have little functional value. This lack is not confined strictly to the student, but exists as well for the pre and in-service teacher.

Nowhere in Panama does there exist a flexible classroom module which will enable pedagogical experimentation such as group teaching, micro-teaching, and cooperative projects. Nor are the facilities designed to enable incorporation of the latest innovations in audio-visual aids. Learning centers are a modern-day need in a school environment, which may include language tapes, programmed texts, reference materials, and instructional consoles. School construction plans should include provision for such supplementary facilities, besides the basic core of grade rooms and administrative space.

Apart from the planning for and construction of such facilities, there is a major problem of facility upkeep. This includes the scheduling of preventive maintenance, resupplying of needed components, and the training of engineering and custodial personnel required to keep the school plant functioning smoothly.

In summary, the major problems identified in this and preceding analyses are: the need for better management; the critical gap in educational quality and all that this implies; and the shortage of facilities to expand educational opportunity and modernize the learning process.

b. Enrollment Targets and Student Flow-through. Two specific and quantifiable goals were stated in the National Plan for Education. One goal was the enrollment of 90% of the 7-15 year age group by 1983. The other was that 49% of the 13-18 year age group should be enrolled in either an academic or technical-vocational cycle. These goals were recently reaffirmed by the Assistant Director General of Education as being valid targets for the Ministry.

We have analyzed these goals to determine whether they are realistic ones in light of current enrollments, projected population data, and the trend in enrollments for both age groups. To simplify our discussion, we have included a series of unnumbered tables within this subsection.

1968¹

| <u>Age Group</u> | <u>Population</u> | <u>Enrolled</u> | <u>% Age Group</u> |
|------------------|-------------------|-----------------|--------------------|
| 7-12 | 214,998 | 185,425 | 90.9 |
| 13-15 | 92,183 | 28,101 | 30.5 |
| 16-18 | 75,086 | 24,036 | 32.0 |
| 7-15 | 307,181 | 213,526 | 69.5 ² |
| 13-18 | 167,269 | 52,137 | 31.2 ³ |

The projected population of 7-15 year olds by 1983, including the current mortality rate for that age group is: 490,136; of which the

| | |
|------------------------------|----------------|
| Target to be enrolled (90%): | 441,122 |
| 1968 enrollment, 7-15: | <u>213,526</u> |
| Net enrollment to be added: | 227,596 |

We now make two assumptions to see how valid the target is in view of the net enrollment to be added.

Assumption 1 - Current rate of 7 year olds entering school, which is 93%, is projected to 1983. We arrive at: 702,373

Less 16 year olds leaving: 567,334

Net added: 135,039

But 227,596 net are necessary to meet target, and hence the deficit is (227,596-135,039)

92,557

Assumption 2 - The maximum amount of available 7 year olds are added to the system:

755,240

Less, 16 year olds leaving:

567,334

Net added:

187,906

Again, we have a deficit, even with the impossible input of 100% of available 7 year olds: (227,596-187,906)=39,590 deficit.

¹ Data supplied by MOE. See Table 3 and 8, Annex VI.

² Conflicts with percentage shown in National Plan, which was 84%.

³ Conflicts slightly with percentage shown in National Plan, which was 29%.

Next we try a series of adjustments in our goals, and break down the age groups into 7-12 and 13-15 year olds in view of the wide variance in current enrollment ratios for these two sets as shown initially in our discussion. Taking this tack guides us to focus on the really critical student gap, the 13-15 year olds, who currently are only enrolled to the extent of 30.5% of those available.

If we assume, for example, that the 7-12 enrollment percentage increases 4% to 95% of that age group by 1983, and further that the percentage 13-15 year olds who enroll increases 11%, or to 42% of that age group, we have the following projections:

| | |
|-----------------------------|---------------|
| 1983 enrollment ages 7-12: | 328,114 |
| 1983 enrollment ages 13-15: | <u>62,876</u> |
| Total | 390,990 |

This total constitutes 80% of the projected population of 7-15 year olds by 1983. This seems more realistic both in current trends, and in incorporating reforms in management, curriculum, teacher training and educational opportunity to be implemented in the National Plan.

Using the same analytical technique, we find that a more realistic goal for the 13-18 age school population is 40% instead of 49%. The essential figures for such a goal are as follows:

| | | |
|---|---------|---------------|
| Projected population 13-15 year olds, 1983: | 149,704 | |
| Adjusted target for enrollment, 42% | | 62,876 |
| Projected population 16-18 year olds, 1983: | 136,206 | |
| Adjusted target for enrollment, 38% | | <u>51,757</u> |
| Target to be enrolled: | | 114,633 |

This total constitutes 40% of the projected school age population, ages 13-18.

c. Facility Requirements Based on Adjusted Targets.

(1) Long Term (1970-1983). If the Ministry of Education accepts these adjusted goals as both realistic and sufficiently responsive to the educational demand, social and economic, which will be prevalent in the nation's character and structure by 1983, then it follows that construction plans both short and long term should be correspondingly adjusted.

To achieve these enrollment goals, therefore, will require the following numbers of classrooms by level:

| | |
|------------------------------|--------------------------|
| Primary Cycle | 11,042 ¹ |
| On Hand, 1967 | <u>5,523²</u> |
| Needing construction by 1983 | <u>5,519</u> |

¹ Assumes 30 pupils per classroom; reduction by 12% of current 17% school enrollment outside 7-12 age group;

² Already adjusted for elimination of rented classrooms.

The construction rate for public primary classrooms over the period 1963-1967 has averaged 7.4% per year, or just under 300 additional classrooms each year. Taking into account the loss in rented facilities, the net effective gain in new places for incoming students averaged 5.6% per year. Over the same time span, the enrollment rate increase has averaged 3.4%. Thus it appears that new construction, plus phase out of rented facilities, is ahead of increased enrollment pressures. However, one of the announced goals of the National Plan is to completely eliminate rented facilities by 1975. This would entail increasing the yearly quota to 167 classrooms to be retired. Therefore, on this point alone, construction of new classrooms would have to be accelerated during the first phase of plan implementation in order to absorb those students currently attending rented facilities.

In addition, the Ministry of Education has made the assumption that the private school system would continue to contribute its services on the same basis of the past. Therefore, since 7.4% of the primary school enrollment is in private schools, we project this same percentage forward to 1983, and this means that 818 of the anticipated 5,519 schools needing construction would be built by private means. The government yearly quota is then reduced to 313, i.e. $(5519-818)$.

15

One other factor to be taken into account in this particular analysis concerns incomplete schools. Recent data supplied by the Ministry (Table 27, Annex VI) places the classroom deficit at 615. These classrooms are needed to provide the full six grades at each school so that the estimated 30,000 students will be removed from the "lock out" category. We shall determine what effect this has on short-term requirements in subsection C.(2) following.

The secondary school construction needs can be estimated similarly. As of 1967, there were 2,127 secondary classrooms, public and private, of which 69 were rented. In order to meet the assumed target of 40% of the 13-18 age group by 1983, the country would need 5,459¹ classrooms, or 3,401 in addition to those now in being, adjusting for the 69 rented ones which would be phased out.

As with the primary cycle, an adjustment has to be made for off-age students. We assume that a realistic goal for 1983 is to reduce the current 22% over-age enrollment at the secondary level to 10%. Thus, the projected classroom needs would have to be increased by approximately 548, giving a total need of 6,007.

There is no indication in the Plan as to whether the Ministry plans to assume a larger percentage of the classroom need, or whether the private

¹ Assumes 21 students per classroom, the current national average.

sector is anticipated to continue providing a significant share of secondary schools. As of 1967, 924 of the 2,127 total secondary classrooms were private and accommodated 40% of the total secondary enrollment. We will assume, therefore, that the private contribution as a percentage of classroom provision will continue through 1983. On this basis, 2,470 additional classrooms needed by 1983 will be constructed by the Ministry in order to accommodate adequately the projected 75,680 students enrolled in official secondary schools.

As in the case of the primary cycle, there are secondary schools which do not provide for a full six-year curriculum. The Ministry estimates that there is a 150 classroom deficit in this connection. Therefore, the 2,470 target figure, adjusted to reflect the deficit, becomes 2,620. A Table is included below for clarification.

Between 1963-1967, the Government built only 107 secondary classrooms, or 0.2% per year of additional units. Consequently, a much greater construction program for the secondary level needs to be undertaken as contrasted to the primary based on current practices.

Amortizing the classrooms needed over the fifteen year period, the Government needs to build 175 per year. What this means in term of short-range goals will be analyzed in the subsection which follows.

PRIMARY CLASSROOM PROJECTION

1 9 8 3

| <u>Students Needing Places</u> | <u>Classrooms Required</u> | <u>Classrooms on Hand 1967</u> | <u>Rented</u> | <u>Balance On Hand</u> |
|--|--------------------------------|--|--|---|
| 331,258 | 11,042 | 6,862 | 1,339 | 5,523 |
| <u>Incomplete or Unserviceable</u> | <u>Net Available</u> | <u>Classrooms Requiring Construction by 1983</u> | <u>To be Constructed Private Means</u> | <u>To be Constructed Public Means</u> |
| 615 | 4,908 | 6,134 | 818 | 5,316 |

SECONDARY CLASSROOM PROJECTION

1 9 8 3

| <u>Students Needing Places</u> | <u>Classrooms Required</u> | <u>Classrooms on Hand 1967</u> | <u>Rented</u> | <u>Balance On Hand</u> |
|--|--------------------------------|--|--|---|
| 126,133 | 6,007 | 2,127 | 69 | 2,058 |
| <u>Incomplete or Unserviceable</u> | <u>Net Available</u> | <u>Classrooms Requiring Construction by 1983</u> | <u>To be Constructed Private Means</u> | <u>To be Constructed Public Means</u> |
| 150 | 1,908 | 4,099 | 1,479 | 2,620 |

(2) Short-Term (1970-1973). As this sector loan concerns the needs for the first phase implementation of the National Plan, it is necessary to focus on the short term facility requirements as determined by adjusted enrollment targets. Several tables have been included within the body of the narrative to assist in this analysis.

STUDENT ENROLLMENT PROJECTIONS

| <u>Population by Age Group, 1968</u> | <u>Projected Popu- lation 1973</u> | <u>Target Enroll- ment 1973</u> |
|--|--|-------------------------------------|
| 214,998 (7-12) | 252,094 | 231,926 <u>1/</u> |
| 92,183 (13-15) | 108,893 | 37,330 <u>2/</u> |
| 75,086 (16-18) | 99,285 | 33,757 <u>3/</u> |

We cannot compute schoolroom requirements based on these enrollment projections as yet, for adjustments must be made for over and under age students, as well as to separate official from private school enrollments.

1/ Assumes 92% enrolled of age group based on 1983 target of 95% to be enrolled.

2/ Assumes 34.3% enrolled of age group based on 1983 target of 42%.

3/ Assumes 34% enrolled of age group based on 1983 target of 38%.

STUDENT ENROLLMENT PROJECTIONS
PRIMARY, ADJUSTED FOR OFF-AGE

| <u>Primary School Enrollment, 1968</u> | <u>Enrollment, Primary 7-12 yrs., 1968</u> | <u>% Off-Age Primary</u> |
|--|---|--|
| 222,513 | 185,425 | 17 |
| <u>Target for % Off-Age, Primary, 1973</u> | <u>Projected Enrollment Primary, All Ages, 1973</u> | <u>Projected Enrollment Public Primary, 1973</u> |
| 13 <u>1/</u> | 262,076 | 243,731 <u>2/</u> |

STUDENT ENROLLMENT PROJECTIONS
SECONDARY, ADJUSTED FOR OFF-AGE

| <u>Secondary School Enrollment, 1968</u> | <u>Enrollment, Secondary 13-18 yrs., 1968</u> | <u>% Off-Age Secondary</u> |
|--|---|--|
| 66,578 | 52,137 | 22 |
| <u>Target for % OFF-Age, Secondary, 1973</u> | <u>Projected Enrollment Secondary, All Ages, 1973</u> | <u>Projected Enrollment Public Secondary, 1973</u> |
| 16 <u>3/</u> | 63,685 <u>4/</u> | 38,211 <u>5/</u> |

he assumptions made in the above tables appear realistic and also beneficial in order to correct some of the inequities in the present structure. The major assumption is that there will be an earnest attack on the off-age problem. Promotion policies and student counselling activities have to be revamped in order to normalize the two cycles in a

1/ Assumes a 5% per year reduction in numbers enrolled who are over or under age.

2/ Assumes current 93% of total enrollment in public schools continues.

3/ Assumes a 5% per year reduction in numbers enrolled who are over or under age.

4/ Adjusted for 30,150 (13-18 yr. old) still in primary and 11,374 (19-21 yr. old) still in secondary by 1973.

5/ Assumes current 40% private school enrollment continues.

better fashion. Improvement in this area alone will affect the overall efficiency of the system, lowering costs per pupil and placing appropriate emphasis on quality aspects of the educational process.

Next, we consider facility requirements based on the above projections:

CLASSROOM REQUIREMENTS
PUBLIC PRIMARY 1973

| <u>On Hand,</u> <u>1969</u> | <u>Rented</u> | <u>Private</u> | <u>Rental</u> <u>Target 1973</u> | <u>Net Available</u> |
|--------------------------------|---|--|---|---|
| 7,198 | 1,339 | 469 | 234 <u>1/</u> | 5,624 |
| | <u>Incomplete or</u> <u>Needing Replacements</u> | <u>Available &</u> <u>Serviceable</u> | <u>Needed for</u> <u>Proj. Enrl.</u> | <u>Being Built</u> <u>Other Programs</u> |
| | 615 <u>2/</u> | 5,009 | 8,125 | 1,110 <u>3/</u> |
| <u>Balance Required, 1973</u> | | | | |
| 2,006 | | | | |

The projected need for 2,006 public primary classrooms by 1973 would mean 47% increase in the current rate of primary classroom construction.

1/ Pro rata target consistent with MOE goal of phase out rentals by 1975.

2/ Data supplied by MOE.

3/ Represents three year projections of classrooms built during 69-70 by CARE, Self-Help Program and Special Development Fund.

CLASSROOM REQUIREMENTS
PUBLIC SECONDARY 1973

| <u>On Hand</u> <u>1969</u> | <u>Rented</u> | <u>Private</u> | <u>Rental</u> <u>Target 1973</u> | <u>Net Available</u> |
|---|---------------|--|---|---|
| 2,127 | 69 | 924 | 17 <u>1/</u> | 1,151 |
| <u>Incomplete or</u> <u>Needing Replacements</u> | | <u>Available &</u> <u>Serviceable</u> | <u>Needed for</u> <u>Proj. Enrl.</u> | <u>Being Built</u> <u>Other Programs</u> |
| 150 <u>2/</u> | | 1,001 | 1,820 | 272 <u>3/</u> |

Balance Required, 1973

547

The projected need for 547 public secondary classrooms by 1973 means an increase of 70 classrooms per year over the current rate of secondary classroom construction.

d. Teacher Requirements

The short-term enrollment projections are useful in determining teacher requirements. Such an analysis can also be the basis for justifying normal school construction.

Over the past five year period for which there is data, 1963-1967, some 1,113 certified teachers have been added to the teaching ranks at the primary level, or 223 per year as an average.

Using the enrollment projections included in subsection 3.c. (2), it is estimated that there will be a need for an additional 2,061 qualified teachers to the 1967 total of 6,675. In other words, an average of 344 normal school graduates need to be added per year to the active teaching rolls for primary schools. This calls for a net effective increase of 54% above the current rate of teacher production per year.

1/ Pro rate target consistent with MOE goal of phase out rentals by 1975.

2/ Data supplied by MOE

3/ IDB Loan

An assumption is made that there will be a 40% attrition of those who enter the normal schools, consisting not only of drop outs, but also graduates who do not enter the teaching ranks. Thus, the required production per year increases to 482.

Some of the normal school graduates become secondary school teachers. In fact, an average of approximately 40% of the combined private and public secondary school teachers are normal school graduates but do not possess university degrees, which is the ultimate objective of the Ministry.

Using this percentage as a base, and again utilizing our enrollment projections from the previous subsection, we determine that 29 graduates per year from the normal school system would go into the secondary school system, for an annual increase of 6% over the present 25. Allowing for the 40% attrition, this means that 41 additional students should enter normal school each year to meet the requirements of first phase implementation to meet secondary school requirements.

Recapitulating, the entering class each year for the normal school should total 523. Such an enrollment would justify the addition of one normal school as presently contemplated in the loan application.

SECTION III - SECTOR LOAN ANALYSIS

A. Objectives and Activities

Objective 1. The principal objective of the loan is to provide the Ministry of Education with technical assistance and training opportunity in an effort to improve its organization and management.

Activities under this broad objective are the following:

- a. Reorganization of the Ministry of Education.
 - (1) Decentralization of the operations of the Ministry through the reorganization and development of nine provincial units.
 - (2) Development of a Department of Higher Education and Accreditation.
- b. Establishment of a planning and evaluation of function.
- c. Establishment of an effective communication network between the provincial units and the Ministry.
- d. Improvement in the coordination between the Ministry, private sector and other governmental agencies.

Objective 2. A second objective, equally as important but dependent upon the first, is to improve the quality of education. Activities under this objective are as follows:

- a. Reorganization and revision of the curriculum in primary, secondary and teacher education; establishment of a Department of Curriculum Development.
- b. Provision of teaching assistance through the provincial units.
- c. Training of supervisors and administrators for primary and secondary education; provide in-service training for personnel currently in the fields of supervision and administration.
- d. Improvement of teacher education.
 - (1) Modernize teaching and upgrade personnel responsible for the preparation of primary and secondary teachers.
 - (2) Prepare a new two-year program at the post secondary level for the training of primary teachers.
 - (3) Establish continuous programs for the improvement of in-service teacher personnel.

- (4) Establish programs for the preparation and improvement of counselors.
- e. Provision of teaching materials and audio-visual aids.
- f. Promotion of educational research.
 - (1) Develop a competent research unit with trained personnel.
 - (2) Experiment in the use of new techniques to improve the quality of education at a reduced cost per unit.
 - (3) Provide for an active research program through the use of selected facilities to test technological innovations and pedagogical techniques and as a training environment for modernizing teachers.
 - (4) Earmark approximately 10% of classroom facilities constructed for pilot research activities.

Objective 3. Each of the other two objectives requires expanded facilities. This objective, therefore, is structured to meet that need and comprises the following activities:

- a. Establishment of a school construction and maintenance unit within the Ministry.
- b. Construction of eight provincial units.
- c. Construction of a superior normal school.
- d. Construction of classrooms for the secondary general cycle.
- e. Construction of classrooms for the primary level, with emphasis on a complete six-year program.
- f. Construction of facilities for the Ministry of Education.

B. Sectoral Approach

Although by far the greater part of the funds made available under this loan and the funds contributed by the Government of Panama will be devoted to the construction of educational facilities, this does not reflect a position taken by either USAID or the GOP that assigns a higher priority to material expansion rather than to improving the quality of education and its administration. Rather, it reflects the obvious fact that the costs entailed are not proportionate to the importance and priority of the activity. The Mission has chosen to consider this a "sector" loan precisely because of our greater concern with the educational system as a whole and the need for strengthening management planning and implementation capability and the ability to develop new and more relevant curricula.

In developing the sectoral approach with the GOP, we have taken into account not only the AID contribution to that sector but on-going assistance and potential contributions from other agencies. The periodic evaluation system which we have built into the implementation plan is specifically designed to reinforce both in our own minds and in the minds of our Panamanian counterparts the sectoral approach which is behind the loan.

C. Engineering Analysis

1. General Description

The engineering and construction phase in which AID will participate encompasses relatively simple design and construction. The proposed construction consists of elementary, secondary and normal schools, together with administrative provincial centers, in selected areas.

These structures are primarily of one-story construction with some two-story buildings. Basically, they consist of a reinforced-concrete frame, concrete floors, concrete-block walls, and corrugated metal roofing on light metal or wood trusses. Preliminary sketches showing basic building layouts and dimensions are shown in Annex II. The function and utility of these school buildings are described more fully in Section II.

The projected progress and completion schedule of 36 months, broken down by proposed building construction contracts, is presented in the Plan of Execution. This breakdown also indicates the location and the components of the proposed construction contracts.

A schedule of the estimated cost of the subprojects which involve engineering and construction activity is tabulated in this Section, and a schedule of the estimated total project costs, including those for education consultants, equipment, furnishings and other costs, is contained in Section III.

This tabulation shows the cost estimate for the construction of a new 15-story Ministry of Education building to be located on government-owned property in Panama City. AID, however, will not participate in the financing of the construction of this structure.

SUMMARY OF
CONSTRUCTION PROGRAM*

| | No. of Schools with No. of Class- rooms per school | Total No. of Class- rooms | Cost of Buildings | Value of Site including cost of development | Total Construction Cost |
|-------------------------------------|--|---------------------------------|----------------------|---|-------------------------------|
| I. <u>Elementary Schools</u> | | | | | |
| Province of Bocas Del Toro | 1 of 19 | 19 | \$ 191,840 | \$ 20,000 | \$ 211,840 |
| Province of Coclé | 1 of 10 | 10 | 91,700 | 5,000 | 96,700 |
| Province of Colon | 1 of 25 | 90 | 242,330 | 51,000 | 293,330 |
| | 1 of 30 | | 290,790 | 5,000 | 295,790 |
| | 1 of 35 | | 339,260 | 120,000 | 459,260 |
| Province of Chiriqui | 2 of 6 | 122 | 110,040 | 25,000 | 135,040 |
| | 3 of 10 | | 275,100 | 65,000 | 340,100 |
| | 1 of 11 | | 100,870 | 20,000 | 120,870 |
| | 2 of 12 | | 220,080 | 75,000 | 295,080 |
| | 1 of 15 | | 159,870 | 40,000 | 199,870 |
| | 1 of 30 | | 290,790 | 40,000 | 330,790 |
| Province of Darien | 1 of 8 | 64 | 73,360 | 7,500 | 80,860 |
| | 1 of 26 | | 252,020 | 10,000 | 262,020 |
| | 1 of 30 | | 290,790 | 22,500 | 313,290 |
| Province of Herrera | 2 of 6 | 26 | 110,040 | 10,000 | 120,040 |
| | 1 of 14 | | 128,060 | 40,000 | 168,060 |
| Province of Los Santos | 3 of 7 | 51 | 192,570 | 45,000 | 237,570 |
| | 1 of 10 | | 91,700 | 5,000 | 96,700 |

*Tentative list subject to detailed facility inventory.

| | No. of Schools with No. of Class- rooms per school | Total No. of Class- rooms | Cost of Buildings | Value of Site including cost of Development | Total Construction Cost |
|-------------------------|--|---------------------------------|----------------------|---|-------------------------------|
| Province of Panama | 1 of 9 | 171 | \$ 82,530 | \$ 50,000 | \$ 132,530 |
| | 1 of 12 | | 110,040 | 25,000 | 135,040 |
| | 1 of 15 | | 159,870 | 37,500 | 197,370 |
| | 2 of 20 | | 426,320 | 99,460 | 525,780 |
| | 2 of 30 | | 581,580 | 135,000 | 716,580 |
| | 1 of 35 | | 339,260 | 10,000 | 349,260 |
| Province of Veraguas | 3 of 10 | 81 | 275,100 | 25,000 | 300,100 |
| | 1 of 20 | | 213,160 | 5,000 | 218,160 |
| | 1 of 31 | | 300,480 | 5,000 | 305,480 |
| Sub-Total - #1 | 39 schools | 634 | \$ 6,152,710 | \$1,002,960 | \$7,155,670 |

2. Secondary Schools

| | | | | | |
|-------------------------------|---------|----|---------|---------|---------|
| Province of Bocas Del Toro | 1 of 12 | 12 | 146,120 | 40,000 | 186,120 |
| Province of Cocle | 1 of 10 | 22 | 127,880 | 30,000 | 157,880 |
| | 1 of 12 | | 146,120 | 40,000 | 186,120 |
| Province of Colon | 1 of 40 | 40 | 569,470 | 310,000 | 879,470 |
| Province of Chiriqui | 2 of 12 | 24 | 292,240 | 55,000 | 347,240 |
| Province of Los Santos | 1 of 12 | 12 | 146,120 | 25,000 | 171,120 |

| | No. of Schools with No. of Class- rooms per school | Total No. of Class- rooms | Cost of Buildings | Value of Site including cost of development | Total Construction Cost |
|--|--|--|-----------------------|---|-------------------------------|
| 2. <u>Secondary Schools</u> (cont.) | | | | | |
| Province of Panama | 2 of 15 1 of 35 | 65 | \$ 416,220 491,060 | \$ 60,000 300,000 | \$ 476,220 791,060 |
| Sub-Total - #2 | 10 schools | 175 | \$2,335,230 | \$ 860,000 | \$3,195,230 |
| 3. <u>Normal Schools</u> | | | | | |
| Province of Panama | 1 | (24 classrooms (19 laboratory Rooms (1 600-seat Audi- torium (1 Gymnasium (2 200-bed dor- mitories (1 350-seat dining room | 972,570 | 100,000 | 1,072,570 |
| Sub-Total - #3 | 1 school | | \$ 972,570 | \$100,000 | \$ 1,072,570 |
| 4. <u>Provincial Centers</u> | | | | | |
| Provinces of Bocas del Toro | 1 | Each with: (10-Supervisor Of- fices (100-seat Audi- torium | 67,430 | 12,000 | 79,430 |
| Darien | 1 | (Maintenance Shop (Warehouse | 67,430 | 12,000 | 79,430 |

| | | | Cost of Buildings | Value of Site including cost of development | Total Construction Cost |
|--------------------------------|---------------------|--|-------------------|---|-------------------------|
| Provinces of | | Each with: | | | |
| Cocle | 1 | (15-Supervisor Offices | \$ 93,900 | \$ 24,000 | \$ 117,900 |
| Herrera | 1 | | 93,900 | 36,000 | 129,900 |
| Colon | 1 | (150-seat Auditorium | 93,900 | 60,000 | 153,900 |
| Los Santos | 1 | (Maintenance Shop (Warehouse | 93,900 | 24,000 | 117,900 |
| Province of Veraguas | 1 | (20-Supervisor Office (200-seat Auditorium (Maintenance Shop (Warehouse | 120,700 | 36,000 | 156,700 |
| Province of Panama | 1 | (Maintenance Shop (Warehouse | 47,280 | 20,000 | 67,280 |
| Sub-Total - #4 | 8 centers | | 678,440 | 224,000 | 902,440 |
| Totals - #1,2,3 & 4 | 58 buildings | | 10,138,950 | 2,186,960 | 12,325,910 |
| | | New Ministry Building - Panama City | <u>1,459,710</u> | <u>110,000</u> | <u>1,569,710</u> |
| | | Total Construction Program | 11,598,660 | 2,296,960 | 13,895,620 |

Preliminary layouts and sketches have been prepared for elementary and secondary schools and for the normal school and the provincial centers. The preliminary layouts have been based on site adaptations from construction drawings prepared under a previous grant-financed AID school construction program.

The preliminary sketches reflect the basic layouts proposed for a small, medium and large school of 10, 20 and 30 classrooms, respectively. These will be adapted, during final design, for the actual number of classrooms proposed at each location, and the cost estimates reflect this. The estimates are based on cost data developed by the Ministry of Education from actual bidding experience for school construction in various zones of Panama covering the period from 1966 into and including 1970.

The construction cost estimates include allowances for engineering consultant services (12%), escalation (15%, construction costs in Panama have been rising at an annual rate of 7%), planning and construction contingencies (10%), and provisions at each location for site work to include grading and drainage and provisions for water, sewerage and electric services. For this type of construction, past experience in Panama has shown that, of the building cost, 85 per cent will represent local currency costs and 15 per cent U.S. dollar procurement costs.

All the buildings located in urban areas will be at sites where existing water and electric services are available. In the principal cities, such as Panama, Colon and David, existing sewage collection systems are available for sanitary waste discharges. At other locations, sanitary waste disposal will be accomplished by means of septic tanks and drain fields.

Certain buildings will form additions to existing schools, Others will be new units at new sites. The communities where these proposed new schools are to be located have been selected. However, the exact sites within the communities of certain of the proposed buildings are still pending final location.

Thus, final site selection will be contingent upon an investigation of soil and drainage conditions to be performed during planning and design and prior to construction. These are simple one-story and two-story structures with relatively light and well-distributed loading. It is not anticipated that the soil conditions to be encountered will have any appreciable effect on the planning as herein proposed.

2. Technical Feasibility

The project is based on the plan for education approved by the Government of Panama and developed by the Ministry of Education with the assistance of educational consultants provided by Pennsylvania State University under USAID grant financing. The planning and proposed construction are based on standards prepared and developed by U.S. consultants for school construction in Panama under a previous USAID grant-financed program.

Based on these data and current experience in school construction, the Ministry of Education has prepared and developed the preliminary planning and cost data for the proposed construction to be financed under this loan. The buildings are, in so far as practicable, adaptations to the site conditions and projected classroom needs of previously constructed structures. It is considered that the technical and engineering requirements of FAA Section 611 have been met.

3. Implementation Plan

Planning, design, evaluation of bidding, and inspection of construction will be performed by consultants to be retained by the Ministry of Education and financed under the loan. These engineering/architectural services will be procured from AID Geographic Code 940 countries (other western hemisphere countries) and Panama, and contracts for such services will be negotiated either with a qualified and eligible individual firm or a qualified joint venture of eligible firms.

A projected schedule is presented in the Plan of Execution showing the proposed timing for planning and design, bidding, and construction of the various components of construction throughout the three-year period of loan implementation. It is proposed to minimize the number of construction contracts by combining several of the site developments in selected areas into individual construction packages. This will assist in obtaining a better bid response for the areas away from the larger cities and also will help expedite the implementation.

4. Maintenance

As a result of a report prepared under AID grant financing, the Ministry of Education within the past year has organized and budgeted (\$1,400,000 for 1970) a department to be responsible for school construction and maintenance throughout Panama.

Prior to this, there was no defined plan for the systematic planning, construction and maintenance of the school buildings. The absence of an effective plan and the limitations of financial resources placed serious limitations on new construction, and maintenance and repair problems were generally undertaken only after they had reached emergency proportions.

With the organization of the new department of construction and maintenance and with the provisions for budget support, the Ministry of Education has now recognized the need and importance of this element of the National Education Plan. At the time school buildings to be financed under this program are placed in operation, this new department will have had some three years of experience in continuing maintenance and repair practices. This will provide a period for development of this department and will permit an evaluation of its operational capability prior to construction.

As a condition precedent to disbursement for construction, the Ministry of Education will be required to submit a maintenance plan for the program to be financed hereunder and evidence of sufficient budgetary support to accomplish adequate maintenance practices.

D. Economic Analysis

1. Relevance to Economic Growth and Development.

Panama has, during the 1960's, maintained substantial growth rates which are reflected by increased exports of goods and services, expansion of private investment and increased industrialization. Real gross domestic product increased at an annual average rate of 7.8% during the 1961-1969 period and, during the same period, the economy underwent changes in composition. Agriculture's contribution to GNP dropped from 22.9% in 1961 to 19.5% in 1969, while the combined share of manufacturing and construction increased from 19.8% to 23.7% and the share of the service component remained practically unchanged although subgroups such as public utilities, trade and banking experienced noteworthy increases during the eight year period. The shift in the structure of production was reflected in a relative decline of farm employment from half of the labor force in 1960 to 39.8% in 1969 while workers in manufacturing and construction rose from 11.3% of total employment in 1960 to 17.5% in 1969.

It can be assumed that the labor market is undergoing a change in Panama with employment possibilities becoming more closely related to education. There is, moreover, evidence that more and better education being extended to Panamanian children, who will be the job-holders of tomorrow, will result in greater earning power. A comparative analysis of the earning power that results from more and better education can be illustrated by the tables that follow:

AVERAGE WEEKLY WAGES OF NON-AGRICULTURAL WORKERS
ACCORDING TO LEVEL OF EDUCATION AND SEX

Based on Surveys of 1963, 1964 and 1966 by IFARHU

| Sex | Educational Level | 1963 | 1964 | 1966 |
|------|---------------------|----------|----------|----------|
| Male | Less than 6th Grade | \$ 18.60 | \$ 17.40 | \$ 20.15 |
| | 6th Grade | 21.10 | 22.20 | 23.77 |
| | Secondary | 31.30 | 31.60 | 33.63 |
| | University | 53.40 | 53.60 | 53.89 |

| Sex | Educational Level | 1963 | 1964 | 1966 |
|--------|---------------------|---------|---------|---------|
| Female | Less than 6th Grade | \$ 7.80 | \$ 8.30 | \$ 7.62 |
| | 6th Grade | 9.70 | 9.50 | 9.96 |
| | Secondary | 26.30 | 26.40 | 29.99 |
| | University | 42.50 | 45.20 | 44.46 |

| Sex | Educational Level | 1963 | 1964 | 1966 |
|------|---------------------|----------|----------|----------|
| Both | Less than 6th Grade | \$ 12.10 | \$ 12.10 | \$ 12.19 |
| | 6th Grade | 16.50 | 17.10 | 18.90 |
| | Secondary | 29.00 | 29.00 | 32.07 |
| | University | 51.30 | 52.80 | 51.47 |

A comparative analysis of the wage benefit according to educational level of attainment appears in the next table. From an examination of these comparisons one can see that the differential between "less than 6th Grade" and "6th Grade" is growing. This is also true of the difference between "less than 6th Grade" and "Secondary". However, it is interesting to note that the differential is decreasing between "University" and all other levels below. A reasonable hypothesis is that, although most wages have been increasing, the rate of increase for categories below that of "University" has been greater. It seems evident that jobs requiring university training have had relatively stable salaries. Nevertheless, it is evident that in 1966 a person with a sixth grade education earned 55% more than a person who had not been graduated from 6th grade. Also a person with a secondary school diploma earned almost 70% more than a person with only 6th grade education. Therefore, in terms of lifetime earnings, a sixth grade graduate can expect to earn \$50,122, while a secondary school graduate can expect to earn \$78,369, or a difference of \$28,247. To translate this into national investment in secondary education: during the past fiscal year the Ministry of Education spent \$225 per pupil per year and in turn, the average secondary school graduate earned \$685 per year more than 6th grade graduates. For example, for each dollar spent on vocational education at the secondary level, there is a substantial increase in earning power as a result. Looking at it in another way, the \$675 (225 x 3 yrs.) investment in each

vocationally prepared student, results in an estimated lifetime average of more than the average lifetime income of the 6th. grade graduate. Putting it another way, for each dollar spent there is a \$42 return during the student's economically productive lifetime.

A COMPARISON BETWEEN WAGES OF WORKERS OF VARIOUS EDUCATIONAL LEVELS
(BOTH SEXES)

| 1963 | Educational Level | 6th. Grade | Secondary | University |
|------|----------------------|------------|-----------|------------|
| | Less than 6th. Grade | + 36.3% | + 139.6% | + 323.9% |
| | 6th. Grade | -- | + 75.7% | + 210.9% |
| | Secondary | -- | -- | 76.8% |
| 1964 | Less than 6th. Grade | + 41.3% | + 139.6% | + 328.0% |
| | 6th Grade | -- | 69.5% | + 202.9% |
| | Secondary | -- | -- | 78.6% |
| 1966 | Less than 6th. Grade | + 55 % | + 163.0% | + 322.2% |
| | 6th. Grade | -- | + 69.6% | + 172.3% |
| | Secondary | -- | -- | + 60.4% |

In the particular case of this loan we have a planned expenditure in educational improvement extending over three years as part of a longer term program. Project expenditures over that period will be \$17,400,000. Average primary school enrollment during that period will be just under 260,000, and secondary enrollment just over 75,000, a total of 335,000. The cost of the improvement will be about \$52 per student. The cost is of course minimal when compared to the benefit indicated by the earnings table. (Neither cost nor benefits should be distributed only over the increment of students enrolled or graduating, since all students benefit from improved facilities and curriculum. Nevertheless, the increased percentage of children staying in school, the "holding-power" of the system is an indication of the existence and recognition of the benefits).

It is probably not possible to devise a meaningful test of improved efficiency of the system just over the life of the loan project. Over the life of the plan, however, we can note a seventy percent increase in primary school output and 120 percent increase in high school graduates from 1970 to 1983. Recurring operating costs are expected to increase by sixty five percent. Dollar input not having risen as fast as output, and nowhere near as fast as secondary school output, the goal of improved efficiency seems to be attainable and likely to be attained.

2. Capability of Government and Ministry to Meet Project Responsibilities

The Government of Panama will contribute to this project \$8.9 million over a three year period. While this represents only a small part of projected budget expenditures, and a somewhat larger but still not major increase in capital account expenditures, it is an important sum in terms of conflicting claims on resources. Three million dollars a year is, after all, less than one sixtieth of the projected 1970 budget - and will be less in future years. Three million dollars is less than a fifth of the projected current account surplus for 1970. But when we note that most of the current account surplus is normally transferred to autonomous agencies for their investment programs (only \$3.5 million of the \$16.9 million expected 1970 current account surplus is available for central government capital investment), the impact becomes more important.

The Government of Panama finances its budget deficit, as do other governments, from a mix of long and short term borrowings, concessional and non-concessional external loans, changes in the domestic debt and changes in the short term domestic float, i.e. bills presented but not yet processed for payment. Recently, non-concessional external debt has played an increasing part in financing the budget deficit (note the marked increase in interest charges in the current expenditure account in the following table:)

CENTRAL GOVERNMENT FINANCES

| <u>ITEM</u> | <u>1967</u> | <u>1968</u> | <u>1969</u> | <u>1970</u> |
|------------------------------------|-------------|-------------|-------------|-------------|
| a. Revenue-Total | 112.9 | 119.4 | 130.0 | 162.7 |
| 1. Domestic Revenue | 112.7 | 119.4 | 130.0 | 162.7 |
| a. Income Taxes | 34.2 | 37.3 | 38.8 | 49.4 |
| b. Sales Taxation | 16.4 | 17.4 | 19.2 | 20.5 |
| c. Customs | 27.9 | 27.8 | 32.5 | 33.2 |
| d. Profits and Fiscal monopolies | - - | - - | - - | - - |
| e. Other Tax Revenue | 9.7 | 10.2 | 11.3 | 28.0 a) |
| f. Receipts from Gov't enterprises | 13.1 | 13.4 | 16.0 | 17.7 |
| g. Other non-tax revenue | 11.4 | 13.3 | 12.2 | 13.9 |
| 2. From foreign grants | 0.2 | - - | - - | - - |
| a. U.S. Government | 0.2 | - - | - - | - - |
| b. Other | - - | - - | - - | - - |

a) Includes \$11.0 million additional tax revenue expected to be collected as a result of a tax reform effected since January 1, 1970.

| | <u>1967</u> | <u>1968</u> | <u>1969</u> | <u>1970</u> |
|-------------------------------|-------------|-------------|-------------|-------------|
| b. Expenditure - Total | 125.3 | 127.0 | 152.8 | 187.9 |
| 1. Current | 111.8 | 110.1 | 118.7 | 145.8 |
| a. Defense | 0.8 | 0.9 | 1.0 | 1.3 |
| b. Agriculture | 3.3 | 3.5 | 4.0 | 5.5 |
| c. Education | 29.8 | 32.6 | 33.5 | 43.0 |
| d. Health | 14.4 | 15.6 | 17.0 | 19.8 |
| e. Transportation | 6.1 | 5.7 | 5.9 | 6.1 |
| f. Communication | 2.3 | 2.6 | 3.0 | 3.2 |
| g. Interest | 6.4 | 7.0 | 7.5 | 13.3 |
| h. Other Current | 48.7 | 42.2 | 46.8 | 53.6 |
| 2. Capital | 13.5 | 16.9 | 34.1 | 42.1 |
| a. Agriculture | 1.6 | 0.7 | 0.9 | 3.1 |
| b. Education | 2.4 | 3.8 | 4.5 | 5.7 |
| c. Health | 0.9 | 0.7 | 1.1 | 3.8 |
| d. Transportation | 1.9 | 2.4 | 18.5 | 18.2 |
| e. Communication | 0.1 | - - | - - | - - |
| f. Industry and Power | 0.3 | 0.2 | 0.5 | 3.6 |
| g. Other Capital | 6.3 | 9.1 | 8.6 | 7.7 |
| c. Deficit (-) or Surplus (+) | - 12.4 | - 7.6 | - 22.8 | - 25.2 |
| d. Financing the Deficit | 12.4 | 7.6 | 22.8 | 25.2 |
| 1. Domestic Sources (net) | 12.4 | 8.8 | 13.3 | - 3.9 |
| a. Central Bank Borrowing | - - | - - | - - | - - |
| b. Other | 12.4 | 8.8 | 13.3 | 3.9 |
| 2. Foreign Borrowing (net) | - - | - 1.2 | 9.5 | 29.1 |

This does not indicate any real impediment to the government's ability to meet obligation under this loan. It does illustrate the development loan dilemma - the government must finance its development program to the maximum extent possible from external concessional loans, but each new loan entails a counterpart contribution which can only be financed from a current account surplus, private domestic savings or non-concessional foreign borrowing. There is, from this loan, no threat to financial stability or indication of government inability to meet its development commitments; the amounts involved are too small, but note should be taken of the needs on a larger scale, to move the government from too much dependence on non-concessional external financing. Both the CIAP sub-committee and the IMF representative took the occasion of the April, 1970 CIAP review to point out that the increased level of development investment deserved approbation even though the reliance on short term financing gave cause for concern. The awareness of the Government of Panama of the existence of the problem is clear.

The contribution of the Ministry of Education to the project, and eventually to the long range plan, seems well assured. The total contribution is much less than the expected normal increase in the MOE budget. But we again have a question of competing demands. For example, the increase in personnel costs directly attributable to this loan, over three years, is only \$455,000 including Ministry staff and new teachers. This is less than five percent of the projected increase in personnel costs expected over the period (An increase of \$14.5 million). But this far larger increase is also project-related in that most of it will go for new teachers, improved teacher training and already announced increases in teachers' salaries designed to attract new teachers, keep trained teachers in the system and bring back in some who have left for other employment. This expenditure is clearly necessary if the plan objectives of quality and efficiency improvements are to be met. The Loan Committee recognized this combination of relatively small demands on financial resources directly resulting from the loan and relatively large demands indirectly resulting from the plan in setting up the annual progress review mechanism (See Section IV - Loan Administration).

The conclusion of the Committee is that the GOP and the Ministry should have no major difficulty in meeting obligations to the program - but the going will not be so easy as to eliminate the need for careful monitoring, periodic review or, of course, concessional lending terms.

3. Borrower's Repayment Capacity

The following table shows the total debt service payments of the Central Government from 1965 through 1970. The rise is notable, particularly in recent years. It is less notable as a percentage of central government revenue (see preceding table), going from 12.2% to 16.1% of revenue. Even in 1970 total debt service payments are expected to be only about 14% of total expenditure and interest charges on the central government debt are expected to be less than 7% of total expenditure. These are modest figures and give no cause for alarm. However, if the rate of increase in government revenue were to slow down and at the same time the need to retire outstanding debt were to grow or the cost of refinancing to become excessive, debt service charges could become a burden. It is in anticipation of such unfavorable development that the CIAP recommendations cited above were made. It is also part of the rationale behind the recommendation that this loan be made on most concessional terms.

TOTAL DEBT SERVICE PAYMENTS
(Central Government)
1965-1970
(In Millions of Dollars)

| | <u>Total Debt Service</u> | <u>External Debt Service</u> | <u>Domestic</u> ¹⁾ <u>Debt Service</u> |
|---------|-------------------------------|----------------------------------|--|
| 1965 | 11.0 | 5.0 | 6.0 |
| 1966 | 11.9 | 5.6 | 6.3 |
| 1967 | 12.9 | 6.2 | 6.7 |
| 1968 | 14.5 | 6.7 | 7.8 |
| 1969 | 22.2 | 9.5 | 12.7 |
| 1970 a) | 26.8 | 13.1 | 13.7 |

- a) Budgeted
1) Excludes the Floating Debt.

The following table, External Public Debt (Central Government) data indicate a trend that could become a cause for concern. The annual payments column includes both interest and amortization, the last column amortization only. The figure for 1970 shows a marked increase in debt retirement as a percentage of debt outstanding at the end of the previous year. This is a healthy sign only if the retirement of short term high cost debt is matched or exceeded by more rapid drawdown of external loans from the International development agencies and a restraint in contracting new short term debt. This is consistent with the program objectives described by the Panamanian representatives at the CIAP meeting.

External Public Debt
(Central Government)
1965-1970
(In Millions of Dollars)

| | <u>Total Outstanding As of Dec. 31</u> | <u>Annual Payments</u> | <u>Debt Retirement</u> |
|------|--|----------------------------|----------------------------|
| 1965 | 62.2 | 5.0 | 2.5 |
| 1966 | 68.3 | 5.6 | 2.7 |
| 1967 | 71.3 | 6.2 | 3.2 |
| 1968 | 70.8 | 6.7 | 3.9 |
| 1969 | 72.0 | 9.5 | 4.1 |
| 1970 | n.a. | 13.1 ^{a)} | 7.3 ^{a)} |

- a) Budgeted, latest revised estimate.

From the above tables the Loan Committee has arrived at two conclusions:

1) There are reasonable prospects of repayment, a requirement of the Foreign Assistance Act, since the debt service burden is not now excessive in terms of either budget resources or export earnings. (The Central Government debt service payment represents less than four percent of export earnings and it is the Central Government we are here concerned with)

2) Concessionary terms are not only justified but necessary to avoid future problems in meeting the financial demands of development. The mix of terms on external debt must be kept on the concessional side to avoid the potential problems mentioned above.

E. Financial Analysis

1. Funding Requirements

The total costs of the overall project broken down into dollar and local currency components are presented in the following table:

| <u>Component</u> | <u>Total Cost</u> | <u>Balboa Cost</u> | <u>Dollar Cost</u> |
|--|-------------------|--------------------|--------------------|
| a. <u>Improving Administration</u> | <u>352,000</u> | <u>81,000</u> | <u>271,000</u> |
| (1) Reorganization of MOE | 185,000 | 51,000 | 134,000 |
| (2) Planning & Evaluation | 102,000 | 10,000 | 92,000 |
| (3) Maintenance | 65,000 | 20,000 | 45,000 |
| b. <u>Improving Quality of Education</u> | <u>1,853,000</u> | <u>430,000</u> | <u>1,423,000</u> |
| (1) Curriculum Development | 237,000 | 96,000 | 141,000 |
| (2) Teacher Education | 451,000 | 195,000 | 256,000 |
| (3) Teaching Materials | 970,000 | 100,000 | 870,000 |
| (4) Research & Technology | 195,000 | 39,000 | 156,000 |
| c. <u>Expansion of Facilities</u> | <u>15,195,000</u> | <u>12,655,000</u> | <u>2,540,000</u> |
| (1) Construction | 11,595,000 | 9,855,000 | 1,740,000 |
| (2) Land | 2,300,000 | 2,300,000 | - |
| (3) Furniture & Equipment | 900,000 | 100,000 | 800,000 |
| (4) New Staff | 400,000 | 400,000 | - |

Contingencies are not broken out separately as a reasonable amount is included in each item.

2. Financial Plan

The total value of the project is estimated at \$17,400,000, of which AID will supply not to exceed \$8,500,000 through the subject loan and the balance of \$8,900,000 will be supplied by the GOP. All the funds are expected to be disbursed by December 31, 1973.

The proposed financial plan is as follows:

| | <u>Dollar Costs</u> | <u>Local Costs</u> | <u>Total</u> | <u>%</u> |
|-------|---------------------|--------------------|------------------|-----------|
| AID | 4,234,000 | 4,266,000 | 8,500,000 | 49 |
| GOP | _____ | <u>8,900,000</u> | <u>8,900,000</u> | <u>51</u> |
| Total | 4,234,000 | 13,166,000 | 17,400,000 | 100 |

The AID and GOP inputs are broken down in detail in Annex VIII, Table 1. The cost figures presented are based on actual costs from existing Ministry operations and carefully developed projections. AID would assume a larger percentage of the technical assistance costs for improving administration and the quality of education, while the cost of construction would be divided approximately equally. These divisions indicate our primary emphasis on the technical assistance components rather than construction. AID funds will cover 49% of the total project costs and 36% of the local costs.

The GOP contribution to the project would come from general budgetary allocation. It would include the cost of all land acquisition estimated at B/.2,300,000. The new administrative and supervisory staff required for the technical assistance components plus the increased teaching staff for the enlarged schools estimated at B/.455,000 would be provided by the GOP. The cost of the new MOE building, B/.1,570,000, would be borne entirely by the GOP.

The contributions of AID and GOP for the components are shown in the following table:

| <u>Component</u> | <u>Total</u> | <u>GOP</u> | <u>AID</u> |
|--|-------------------|------------------|------------------|
| a. <u>Improving Administration</u> | <u>352,000</u> | <u>94,000</u> | <u>258,000</u> |
| (1) Reorganization of MOE | 185,000 | 62,000 | 123,000 |
| (2) Planning & Evaluation | 102,000 | 17,000 | 85,000 |
| (3) Maintenance | 65,000 | 15,000 | 50,000 |
| b. <u>Improving Quality of Education</u> | <u>1,853,000</u> | <u>574,000</u> | <u>1,279,000</u> |
| (1) Curriculum Development | 237,000 | 71,000 | 166,000 |
| (2) Teacher Education | 451,000 | 166,000 | 285,000 |
| (3) Teaching Materials | 970,000 | 251,000 | 719,000 |
| (4) Research & Technology | 195,000 | 86,000 | 109,000 |
| c. <u>Expansion of Facilities</u> | <u>15,195,000</u> | <u>8,232,000</u> | <u>6,963,000</u> |
| (1) Provincial Units (8) | 902,000 | 451,000 | 451,000 |
| (2) Superior Normal School | 1,132,000 | 596,000 | 536,000 |
| (3) Primary Classrooms (635) | 7,296,000 | 3,718,000 | 3,578,000 |
| (4) Secondary Classrooms (175) | 3,395,000 | 1,797,000 | 1,598,000 |
| (5) Furniture & Equipment | 900,000 | 100,000 | 800,000 |
| (6) MOE Building | 1,570,000 | 1,570,000 | |

A further breakdown of the totals shown in the above table are as follows:

| <u>Component</u> | <u>Capital</u> | | <u>Tech.</u> | <u>Training</u> | | <u>Staff</u> |
|------------------------------------|---------------------|------------------|------------------|-----------------|----------------|----------------|
| | <u>GOP</u> | <u>AID</u> | <u>AID</u> | <u>GOP</u> | <u>AID</u> | <u>GOP</u> |
| a. <u>Improving Administration</u> | <u>4,000</u> | <u>6,000</u> | <u>195,000</u> | <u>59,000</u> | <u>57,000</u> | <u>31,000</u> |
| (1) MOE Reorganization | - | - | 90,000 | 31,000 | 33,000 | 31,000 |
| (2) Planning & Evaluation | 4,000 | 6,000 | 60,000 | 13,000 | 19,000 | - |
| (3) Maintenance | - | - | 45,000 | 15,000 | 5,000 | - |
| b. <u>Quality of Education</u> | <u>246,000</u> | <u>699,000</u> | <u>330,000</u> | <u>304,000</u> | <u>250,000</u> | <u>24,000</u> |
| (1) Curriculum Devl. | - | - | 120,000 | 61,000 | 46,000 | 10,000 |
| (2) Teacher Education | - | - | 150,000 | 166,000 | 135,000 | - |
| (3) Teaching Materials | 201,000 | 699,000 | - | 50,000 | 50,000 | - |
| (4) Research & Technology | 45,000 | 30,000 | 60,000 | 27,000 | 19,000 | 14,000 |
| | | | | | | |
| | <u>Construction</u> | | <u>Land</u> | | | |
| | <u>GOP</u> | <u>AID</u> | <u>GOP</u> | | | |
| c. <u>Expansion of Facilities</u> | <u>5,532,000</u> | <u>6,963,000</u> | <u>2,300,000</u> | | | <u>400,000</u> |
| (1) Prov. Units | 226,000 | 451,000 | 225,000 | | | - |
| (2) Normal School | 426,000 | 536,000 | 100,000 | | | 60,000 |
| (3) Primary Classrooms | 2,573,000 | 3,578,000 | 1,005,000 | | | 140,000 |
| (4) Secondary | 737,000 | 1,598,000 | 860,000 | | | 200,000 |
| (5) Furniture/Equip. | 100,000 | 800,000 | - | | | - |
| (6) MOE Bldg. | 1,470,000 | - | 110,000 | | | - |

Since this project is intended to implement the first three year phase of the National Plan for Education, the disbursement period of the loan should be for three years. The following time schedule is proposed for the use of project funds:

| | <u>1st. Year</u> | <u>2nd. Year</u> | <u>3rd. Year</u> |
|-------|------------------|------------------|------------------|
| AID | 3,137,000 | 3,615,000 | 2,148,000 |
| GOP | <u>1,520,000</u> | <u>4,728,000</u> | <u>2,252,000</u> |
| Total | 4,657,000 | 8,343,000 | 4,400,000 |

A cash flow statement of Ministry income and expenditures commencing with the year 1963 and projected through 1974 is attached hereto as Table 2 of Annex VIII. A cash flow projection for the loan funds is attached as Table 3 of Annex VIII.

3. Alternative Sources of Financing

The conclusion of the Country Team is that suitable financing from other lending agencies is not available for this project. See Section II A-7.

4. Prospects of Loan Repayment

General economic prospects for Panama are favorable, and more specifically, its foreign exchange earnings potential is significant. Recent historical experience and present public sector attitudes provide a basis for the expectation that the rate of growth of GOP revenue will at least match the rate of economic growth. While funded debt service payments have increased they have been kept within manageable limits.

Floating debt has given rise to short term problems which can be resolved with more effective expenditure control. The latter was included as a component of AID Loan No. 525-L-035 for Development Administration.

These conditions and Panama's historical good-standing in the international financial community indicate that foreseeable prospects of GOP repayment of this loan are excellent.

SECTION IV - LOAN ADMINISTRATION

A. Project Execution

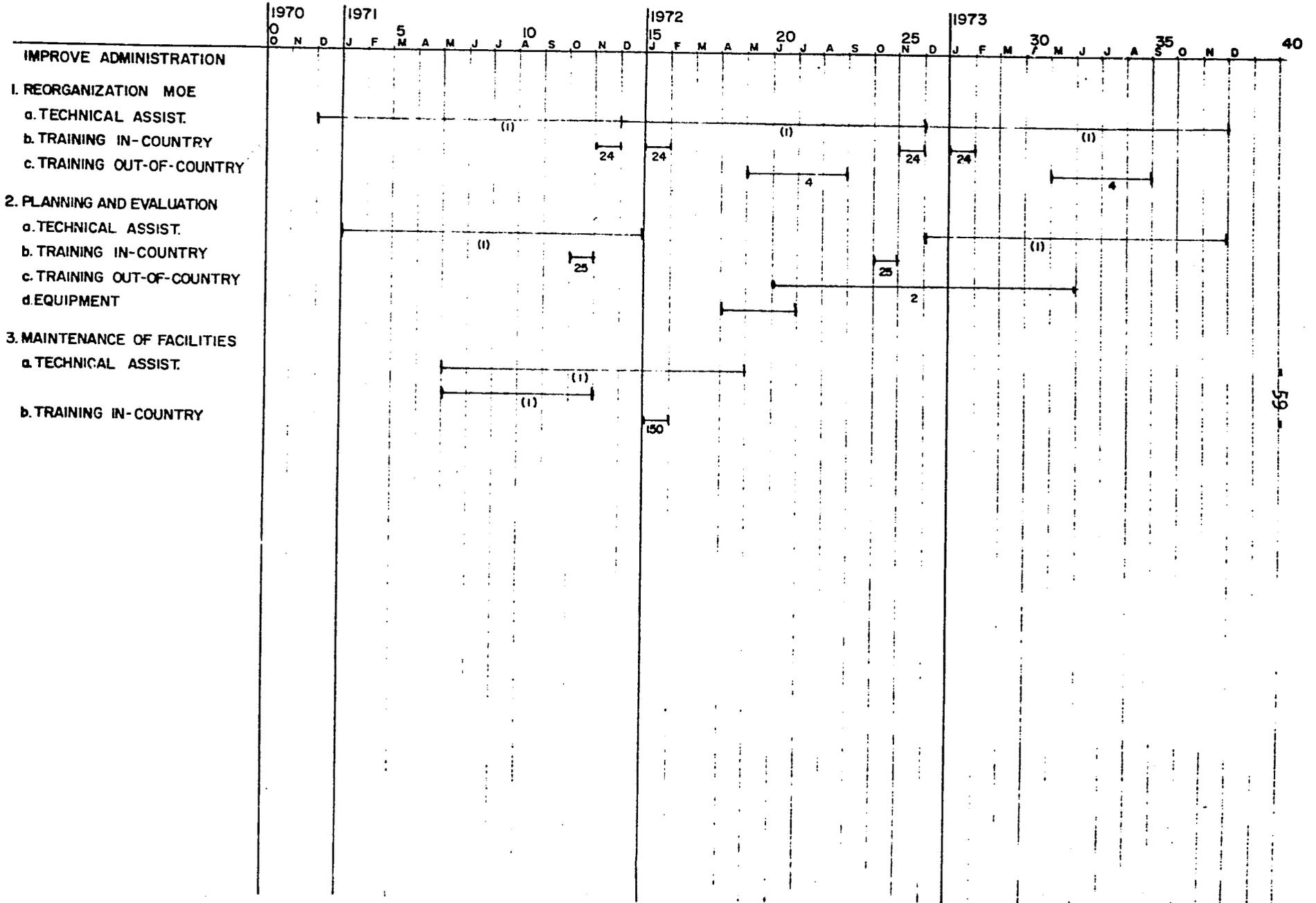
1. General Guidelines:

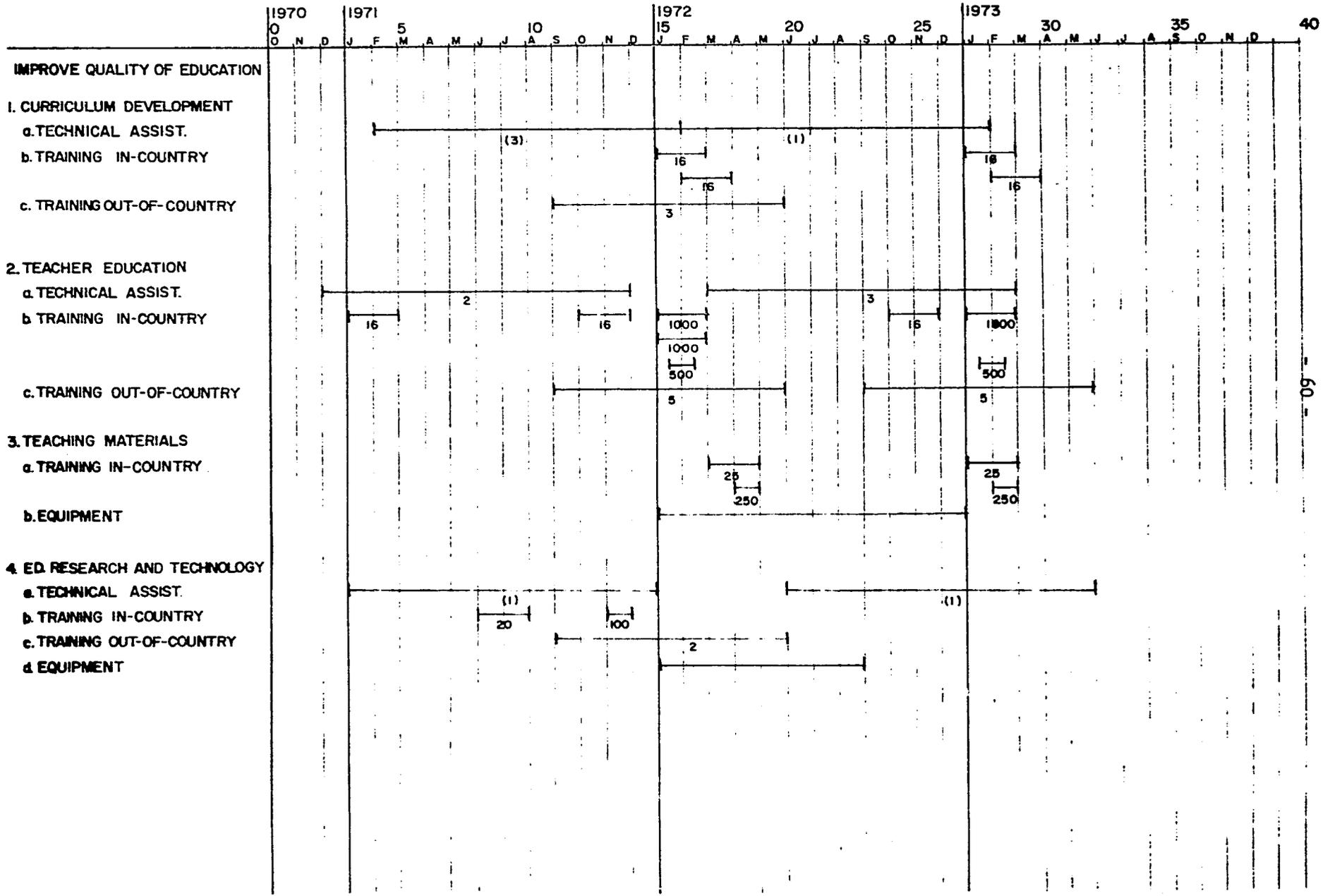
To achieve the objectives of the project each component will make use of one or more of the following activities:

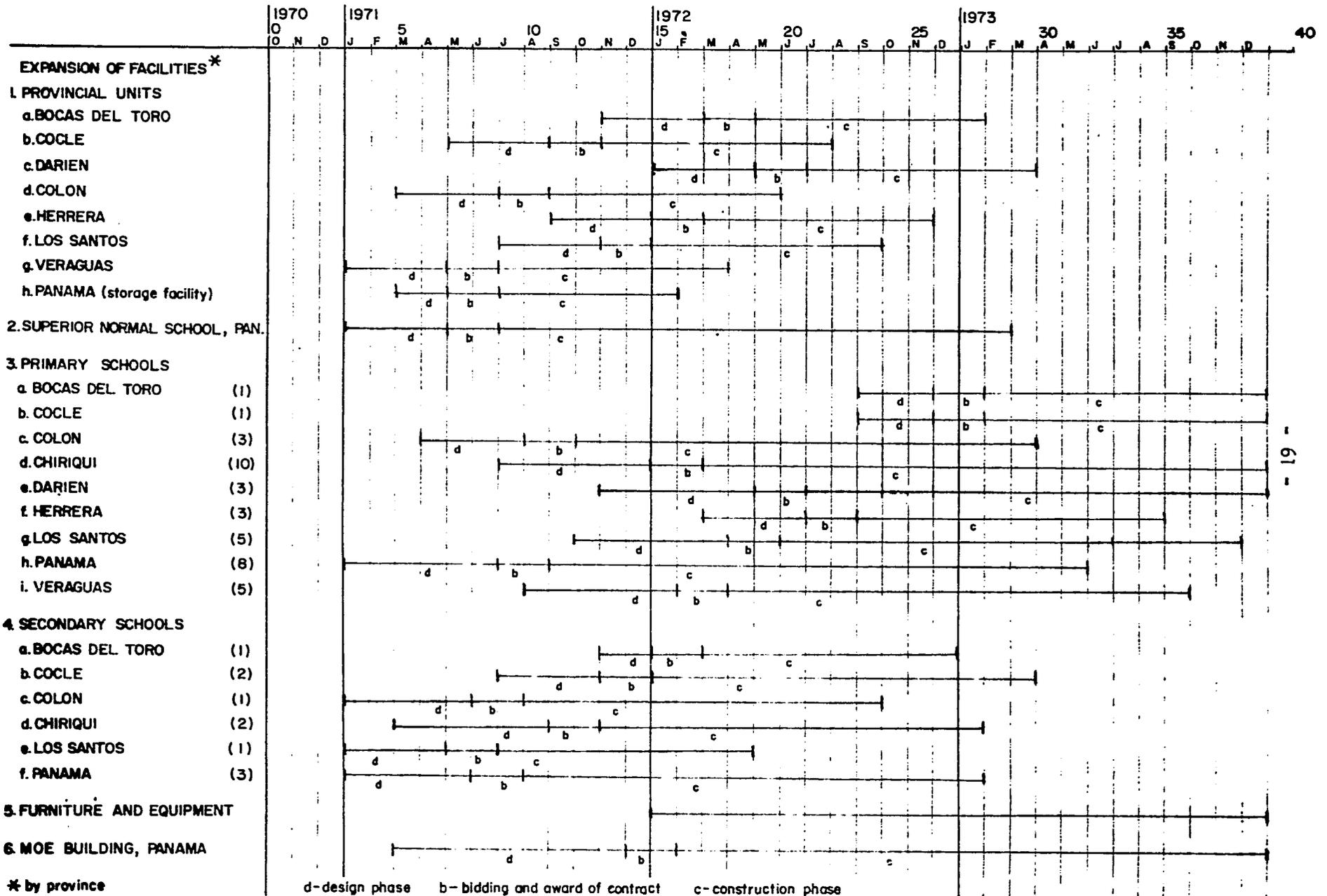
- a. Technical assistance - foreign specialists to work with GOP personnel at ministerial and provincial levels. The scope of work of each specialist will be prepared by ministry personnel focusing on the characteristics of each component and the objectives to be attained. The scopes of work will be approved by AID prior to their implementation and will serve as a guideline for project evaluation.
- b. In-country training - courses, seminars or workshops to be prepared and conducted in conjunction with the technical assistance for components.
- c. Out-of-country training - in components where technical assistance or in-country training cannot provide sufficient training for continuing implementation of the project, individuals will be trained in other western hemisphere countries.
- d. Equipment - commodities as deemed necessary by the MOE, AID and the technical assistance for specific components of the project, i.e., classroom furniture, audio-visual aids, science laboratory equipment, kitchen equipment for home economics training, etc.
- e. Construction - plans and specifications to be prepared by a qualified firm of architects and engineers with the approval of the MOE and AID. Construction documents will be prepared in geographic area packages to obtain better bids and the construction phase of each package will be under the inspection of the firm of architects and engineers.
- f. Evaluation and review - due to the large number of individual and independent components within the project, an annual evaluation of each component will be made by both the MOE and AID to evaluate progress and determine future courses of action to achieve the objectives of the project.

One of the conditions precedent to initial disbursement is the preparation of an overall time-phased implementation plan showing breakdown, timing and interrelationship of the various steps which will be required to effect a timely execution of the project.

PLAN OF EXECUTION

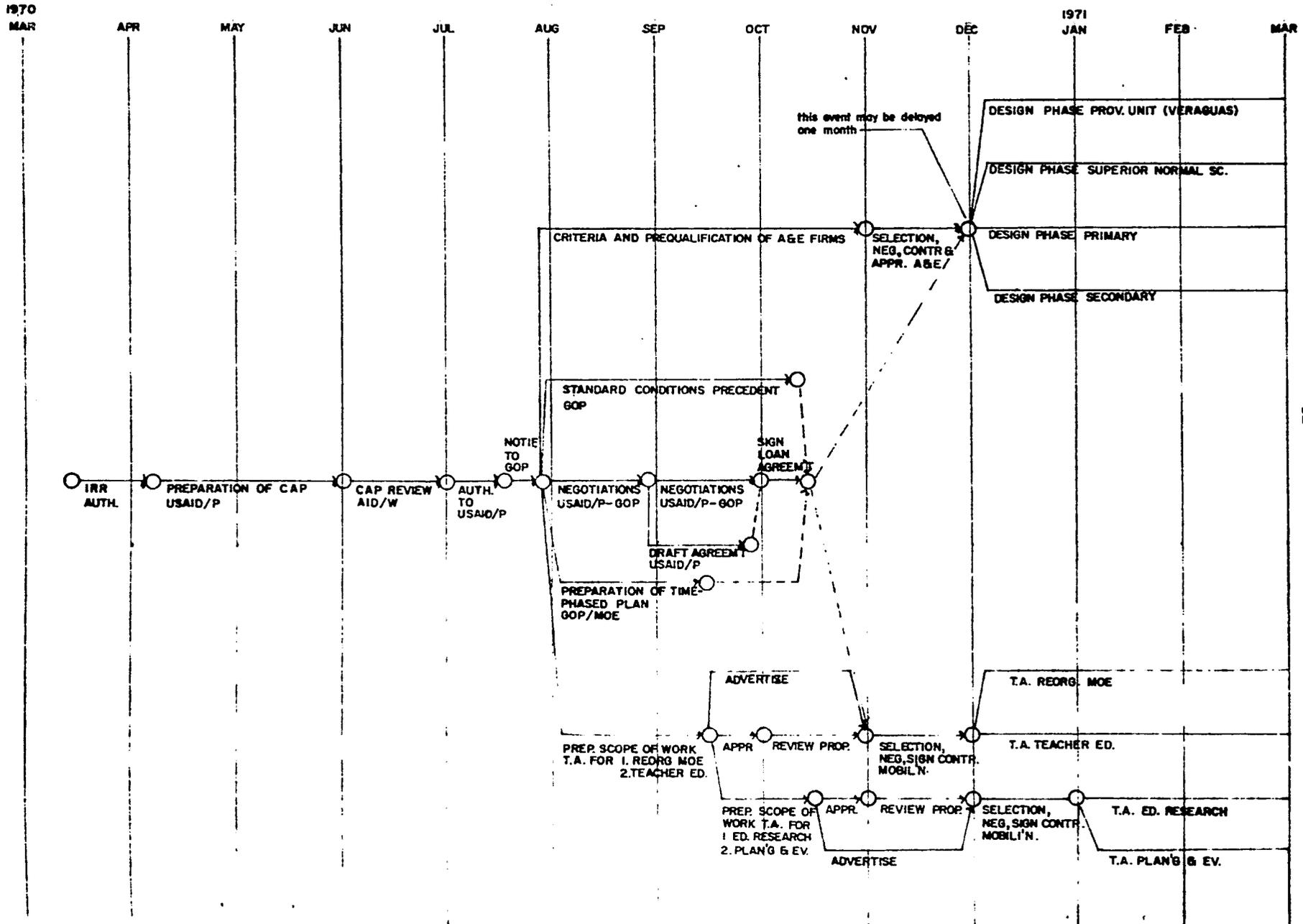






SOURCE: DIRECCION GENERAL DE EDUCACION
 MINISTERIO DE EDUCACION
 MAYO, 70

EDUCATION SECTOR LOAN
USAID/PANAMA



2. Execution Plan:

Prior to the initiation of activities within any component of the project the Borrower will meet the standard conditions precedent to initial disbursement. Conditions precedent to disbursement for activities within each component will begin to be met concurrently with the standard conditions precedent, i.e., a time-phased implementation plan, scopes of work for technical assistance and the preparation of construction documents. The activities within each component will be monitored by a project coordinator and are as follows:

(For expected dates of initiation and completion of each activity see Plan of Execution.)

- a. Reorganization of Ministry of Education - technical assistance consisting of 36 man months, or one individual for three years, to assist the Director General of the Ministry in developing plans and information and evaluation programs for the establishment of the provincial units. The plans and programs will focus on the improvement of supervision, administration and teaching. As the establishment of provincial units progresses, the technical assistance will train or prepare courses and seminars for a total of 100 individuals for four weeks at the rate of approximately 50 per year. In conjunction with Ministry personnel the technical assistance will develop criteria for selecting eight individuals for training out-of-country. These will be trained in two groups of four in the areas of primary school administration, secondary school administration and supervision.

Conditions precedent for this component are to be met within 6 months after execution of the Loan Agreement. The first evaluation and review of this component will be held in November 1971.

- b. Planning and evaluation - technical assistance consisting of 24 man months, or one individual for two years, to assist the educational planning unit of the Ministry in coordinating and programming the National Plan for Education in the area of statistical systems and methods relevant to an improved management function and in evaluation techniques. The technicians will prepare and conduct seminars and workshops for 50 persons for a total of three weeks in groups of 25 per year. The technicians will also assist the Ministry in developing criteria for selecting two individuals for training out-of-country for a one year period in the field of evaluation. A list of commodities necessary for the completion of this component will be prepared by the Ministry upon recommendation of the technicians, and procurement of these commodities will proceed upon concurrence of AID.

Conditions precedent to disbursement for:

- (1) Technical assistance will be met within 6 months after execution of the Loan Agreement.
- (2) Procurement of equipment will be met within 12 months after execution of the Loan Agreement. The first evaluation and review of this component will be held in November 1971.

- c. Maintenance of facilities - technical assistance consisting of 18 man months, or one individual for one year and one for six months, to commence simultaneously. The first will assist the newly established Bureau of Construction and Maintenance to develop a school and administrative buildings maintenance and construction program. The second individual will assist the bureau to develop an inventory of school facilities and project their requirements.

Conditions precedent to disbursement for technical assistance in this component will be met within 9 months after execution of the Loan Agreement. The first evaluation and review of this component will be held in November 1971.

- d. Curriculum Development - the initial activity of this component will be technical assistance consisting of 24 man months, or one individual for two years, in the field of curriculum; 12 man months, or one man for one year, in the field of guidance; and, 12 man months, or one individual for one year, in the field of special education. These individuals will commence simultaneously and assist the Ministry to: fully develop an educational philosophy responsive to the social, economic and political needs; establish educational objectives to determine means of learning; develop a system of learning and establish guidelines for research and evaluation as a basis for future revisions. The technicians will prepare workshops and seminars for 64 persons for 32 weeks in four sessions as a system of curricula develops. The technicians will also assist the Ministry in developing criteria for the selection of three individuals for training out-of-country.

Conditions precedent to disbursement for technical assistance in this component will be met within 6 months after execution of the Loan Agreement. The first evaluation and review of this component will be held in November 1971.

- e. Teacher education - technical assistance consisting of 60 man months divided into two individuals the first year and three individuals during the second year of the project. They are to assist the Ministry and the University of Panama in the preparation of primary and secondary school teachers in the Faculty of Philosophy, Humanities and Education of the University and the normal schools of the Ministry.

Assistance will be given by organizing and administering in-service teacher seminars during the major school recesses for both primary and secondary school teachers and the preparation of teacher trainers for the seminars and the superior normal school. Thus, the training in-country will consist of upgrading 48 teacher trainers in three groups of 16, 3000 primary school teachers in three groups of 1000, and 1000 secondary school teachers in two groups of 500.

The technical assistance groups will assist the Ministry in preparing criteria for selection of 10 individuals for training out-of-country in the following areas: special education, guidance, developmental reading and tests and measures. The out-of-country training will occur in two sessions consisting of five individuals each.

Conditions precedent to disbursement for technical assistance in this component will be met within 6 months after execution of the Loan Agreement. The first evaluation and review of this component will be held in November 1971.

- f. Teaching materials - the major activity of this component is the procurement of audio-visual aids and educational equipment. The list of items to be procured will be developed by the Ministry taking into consideration the recommendations by the technical assistance for other components of the project.

The training in-country will be conducted by the Ministry personnel and will involve courses for 50 persons for 16 weeks in two sessions in development and use of libraries, in which the audio-visual aids will be administered, and courses in the use of educational materials for 500 persons for three weeks, also in two sessions.

Conditions precedent to disbursement for the procurement of equipment will be met within 12 months after execution of the Loan Agreement. The first evaluation and review of this component will be held in November 1971.

- g. Educational research and technology - this component will be initiated with technical assistance for a period of 24 man months divided into two groups of 12 man months, separated by an interval of approximately 6 months. They are to assist the Ministry in establishing an educational research unit and developing areas of research within the educational system. The technicians will plan and administer seminars and workshops for 20 persons for four weeks as the research unit is established and seminars for 200 teachers for two weeks. The technicians will assist the Ministry in preparing criteria for selecting two individuals for training out-of-country, so that they will return to work with the second group of technical assistants. The technicians will also assist the Ministry in determining the equipment necessary for the successful establishment of a research unit. This equipment will be available to the Ministry as the second group of technical assistants arrives.

Conditions precedent to disbursement for:

- (1) Research technical assistance will be met within 6 months after execution of the Loan Agreement.
- (2) Procurement of research equipment will be met within 12 months after execution of the Loan Agreement. The first evaluation and review of this component will be held in November 1971.

- h. Expansion of facilities - this component of the project entails the construction of provincial centers, primary schools, secondary schools, a normal school and a building to house the Ministry of Education. Designs and bid documents will be prepared by a qualified firm of architects and engineers with programs and guidelines established by the Bureau of Construction and Maintenance.

All conditions precedent to disbursement for other than construction will be met within 24 months after execution of the Loan Agreement. No construction will be initiated after February 1, 1973. The first evaluation and review of this component will be held in November 1971.

B. Administrative Provisions and Responsibilities

1. Project Management will be composed of personnel from the Ministry and organized as recommended by the National Plan for Education for its implementation. The Ministry provided adequate support for the technical team from the Pennsylvania State University in the preparation of the National Plan from the Office of the Director General of Education and it is assumed that individuals who contributed to the formulation of the National Plan will assist in its implementation. The Ministry will appoint a project manager to coordinate the project.
2. Technical Assistance will be provided through contractual arrangements with private firms or universities. The monitoring of the implementation of recommendations made through technical assistance will be the responsibility of the Ministry.
3. Loan Disbursements will be made under Letters of Commitment for the dollar costs and disbursement procedures established by USAID for the local costs. It is estimated that the loan will be fully disbursed within three (3) years from January 1, 1971.
4. Fiscal Control of loan funds will be the responsibility of the Ministry and audit and review of activities will be made by both the USAID Controller and by the GOP Controller.
5. Construction will be undertaken by the Ministry. It shall submit to AID for approval all construction plans and specifications, all procurement specifications and all contractual arrangements. The plans and specifications should be prepared in consultation with advisors made available through technical assistance. The USAID project coordinator will have the responsibility of monitoring the general operation of the project.
6. Maintenance and Operation of the facilities will be the responsibility of the Ministry. A major recommendation of the National Plan for Education is the establishment of a Bureau of Maintenance and Construction. This bureau has been established and with the technical guidance to be provided under the project, it will be capable of maintaining and operating the proposed expansion of facilities.
7. USAID Monitoring Responsibilities - the Chairman of USAID Project Committee, who is the head of the Human Resources Division, will have primary monitoring responsibility. This responsibility will entail the receipt and initiation of all correspondence with the Borrower on matters of execution, compliance with the Loan

Agreement, issuance of Letters of Implementation, approval of construction plans and contracts, and receipt of progress reports. The USAID Engineering Division, USAID Legal Advisor and USAID Capital Development Division will assist in monitoring activities appropriate to their fields of competence and responsibility.

C. Conditions and Covenants

In addition to the applicable standard conditions precedent to disbursement and covenants, the following special requirements are proposed:

1. Conditions:

- a. Prior to the issuance of any commitment document or any disbursement under the loan, the Borrower shall submit evidence satisfactory to AID of a time-phased implementation plan to include each component of this project, showing interrelationship with and priority relative to other components.
- b. Prior to the issuance of any commitment document or any disbursement for construction services or commodities for a particular construction subproject, the Borrower shall, except as AID may otherwise agree in writing, furnish to AID in form and substance satisfactory to AID:
 - (1) Plans and specifications, bid documents, cost estimates, and time schedules for carrying out the subproject.
 - (2) An executed contract for construction or other services for the subproject acceptable to AID with a firm acceptable to AID.
 - (3) Evidence that the Borrower has obtained all real property rights, including easement and rights of way, required for the construction and operation of the subproject.
 - (4) A maintenance plan satisfactory to AID and evidence of sufficient budgetary support to accomplish adequate maintenance practices.
- c. Prior to the issuance of any commitment document or any disbursement for architectural and engineering services for a particular construction subproject, the Borrower shall furnish to AID an executed contract for architectural and engineering services for the subproject acceptable to AID with a firm acceptable to AID.

- d. Prior to any disbursement or the issuance of any commitment document for technical assistance services for a particular activity within the project, the Borrower shall furnish to AID an executed contract for such services acceptable to AID with a firm or university acceptable to AID.

2. Covenants:

The Borrower shall agree to:

- a. Make timely and adequate appropriation of funds in conformance with the implementation plan referred to above.
- b. Faithfully carry out all items and conditions of the Loan Agreement.
- c. Undertake with AID an annual joint review of the project and at such interim times as may be agreeable to both parties to determine the adequacy of progress in achieving the project goals. If in the course of the periodic review it becomes apparent that the purposes of the loan will not be attained, AID will exercise its rights under the standard provision of the Loan Agreement on suspension of disbursements. While this does not give to AID any rights that it has not always had under standard Loan Agreement provisions, it does institutionalize for this loan the review process by which satisfactory (or unsatisfactory) progress toward attaining the purposes of the loan may be discovered.

3. Other Terms and Conditions:

The loan shall be subject to such other terms and conditions as AID may deem advisable.

D. PROGRESS REVIEW

A joint review by AID and the Borrower to determine the adequacy of progress in achieving the project goals will be held annually commencing in November 1971 and at such interim times as may be agreeable to both parties.

The progress review committee should consist of the following members:

Representing USAID: Project Manager
Development Loan Officer
Chief, Human Resources Division
Representative, Office of Development Planning
Technical Advisors according to need

Representing GOP: Minister or Vice Minister of Education
Director General, Ministry of Education
Project Manager
Appropriate Technical Advisors (Contract and Local)

Approximately one month prior to each annual review and as early as practicable before interim reviews, the USAID Project Manager in cooperation with the Ministry Project Manager will develop an agenda listing the activities to be reviewed, establish guidelines for assembling data and supporting documentation and make a checklist to assist the review committee in quantifying progress during the period under review.

The major purpose of such periodic review is to determine if sufficient and satisfactory progress has transpired during the preceding period so that activities scheduled for implementation subsequent to such review may be authorized. Recommendations by the review committee may include the following alternatives: proceed with all activities as scheduled; delay initiation of certain activities subject to corrective action by a specified date; revision of implementation schedule to conform more closely with actual experience; postponement of all activities until corrective action has been taken and a re-review scheduled.

As a general guide for the first progress review, the following topics, which are described in Section III-A with the execution plan therefor set forth in Section IV-A-2, will be covered: reorganization of the Ministry of Education, planning and evaluation, curriculum development, teacher education, teaching materials, out-of-country training, in-country training, educational research and technology, development of provincial units, construction and maintenance.

SECTION V - ISSUES

A. Capacity of the Ministry of Education to absorb the magnitude of the technical assistance in the loan period.

The technical assistance to be provided under the loan amounts to 17 $\frac{1}{2}$ man-years, spread over a period of three years. The yearly input of technical assistance, which amounts to about 5.8 man-years, should not be beyond the capacity of the Ministry to utilize such assistance effectively. The assistance has been carefully phased so that there is no undue concentration and also to fit in with the vacation schedules of the Panamanian school system. The existing staff is sufficient to handle the amount of assistance along with the additional staff to be added pursuant to the loan.

The Ministry has organized a special task force for the specific purpose of planning, administering and coordinating the first phase implementation of the National Plan for Education as it concerns this loan. This group has been active and productive in updating educational statistics, refining construction estimates and in recommending technical assistance levels and types. As this group will continue functioning during the course of loan implementation, it serves as another positive factor in the Ministry's capacity to undertake the total program.

It is, of course, possible that with the influence of other technical assistance from the IDB, OAS, UNESCO-UNICEF and ODECA, too heavy a burden may be imposed on the Ministry, particularly during the first 18 months of plan implementation. For this reason, we are requiring yearly project reviews to assess the progress being made and the capacity of the Ministry to handle the varied technical input. If during these reviews it is determined there does not exist the absorptive capacity within the Ministry, then the initiation of any new project for technical assistance under the loan may be proscribed until a reassessment is made.

B. Ability of Ministry to carry out the construction program in three years.

The department of construction and maintenance will be responsible for administering and monitoring the engineering and construction phases of the program. Through this new department and with consultants to be retained for the planning and design and building contractors for the construction, the Ministry of Education will have the capability for performing the proposed construction program within the projected three-year period of loan implementation. The construction is generally wide spread and relatively simple, resulting in no unusual added burden in any one particular area, and is within the capacity of the existing construction contractor capability in Panama.

- C. The willingness of the Ministry of Education to accept and implement the recommended reorganization and changes in management as well as the changes in the program to improve the quality of education.

The Ministry has committed itself to implementing the National Plan and has given every indication that it intends to follow the recommendations contained therein. This willingness is implicit in the loan application that it has presented to AID requesting the technical assistance for improving management and the quality of education. However, this issue will also be considered in making the yearly review mentioned in the first issue above and necessary action to limit the initiation of new assistance will be taken if appropriate implementation is not being instituted.



Department of State

TELEGRAM

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 Classification

4. IS THE ABSORPTIVE CAPACITY OF THE MOE ADEQUATE WITH RESPECT TO THE EFFECTIVE UTILIZATION OF THE PROPOSED TECHNICAL ASSISTANCE AND OF THE CONSTRUCTION PROGRAM? IN THIS CONNECTION, THE CAP SHOULD CONTAIN A FLOWCHART DEPICTING TECHNICAL AND CAPITAL ASSISTANCE INPUTS, LEAD-TIMES REQUIRED FOR TARGETED OUTPUTS, AND PHASING-IN OF QUALITATIVE COMPONENTS WITH PHYSICAL FACILITIES AVAILABILITY.

5. WILL THE DESIGN, IMPLEMENTATION AND FUNDING OF RESEARCH UNIT OF MOE PERMIT THAT ENTITY TO ACTUALLY TEST IN CLASSROOM SITUATIONS INNOVATIONS IN TECHNOLOGY AND PEDAGOGY AS WELL AS SCHOOL DESIGN. FURTHERMORE, IS THERE A MECHANISM TO PROVIDE INCENTIVES AND REWARDS TO PROFESSIONAL SECTOR PERSONNEL TO PROMOTE HIGHER PRODUCTIVITY AT REDUCED COSTS?

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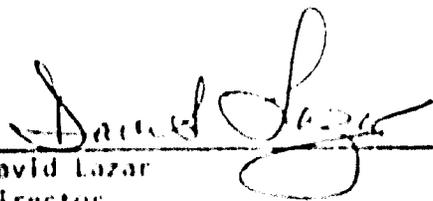
CERTIFICATION PURSUANT TO SECTION 611 (e)
OF THE FOREIGN ASSISTANCE ACT OF 1961, AS AMENDED

I, David Lazar, the principal officer of the Agency for International Development in Panama, having taken into account, among other things, the maintenance and utilization of projects in Panama previously financed or assisted by the United States, do hereby certify that in my judgment Panama has both the financial capability and the human resources capability to effectively maintain and utilize the capital assistance project, Education Sector Loan.

This judgment is based on the Mission's over-all experience with the Ministry of Education on previously AID-financed projects in the field of education. One loan project and a number of grant projects to the Ministry have been completed during the period of AID assistance in Panama.

The Ministry has the direct responsibility for the implementation and maintenance of this program and the physical facilities contained therein. There will be continuing responsibility for the Ministry to carry out the National Plan for Education for which this loan project is a part of the initial phase.

The Mission's experience and audit reports confirm that the Ministry has the financial and human resources and is effectively applying these inputs in the continuing conduct and maintenance of this and their other programs.



David Lazar
Director
USAID/Panama

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CHECKLIST OF STATUTORY CRITERIA

(Alliance for Progress)

In the right-hand margin, for each item write answer, or as appropriate, a summary of required discussion. As necessary, reference the section(s) of the Capital Assistance Paper, or other clearly identified and available document, in which the matter is further discussed. This form may be made a part of the Capital Assistance Paper.

The following abbreviations are used:

FAA - Foreign Assistance Act of 1961, as amended by the Foreign Assistance Act of 1968.

App. - Foreign Assistance and Related Agencies Appropriations Act, 1970.

COUNTRY PERFORMANCE

Progress Towards Country Goals

1. FAA §. 208; §.251(b). .

A. Describe extent to which country is:

(1) Making appropriate efforts to increase food production and improve means for food storage and distribution.

The growth in agricultural production in Panama is among the highest in Latin America. Improvement in food storage and distribution has been satisfactory.

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(2) Creating a favorable climate for foreign and domestic private enterprise and investment.

The climate for foreign and domestic private enterprise and investment has been satisfactory as evidenced by the very high rate of increase in private investment over the past several years.

(3) Increasing the public's role in the developmental process.

Increased participation in the developmental process is being promoted through several current GOP programs, especially those administered by the recently established Office of Community Development.

(4) (a) Allocating available budgetary resources to development.

During 1960-69 period, public sector real investment amounted to about \$260 million or 20% of estimated total expenditures (\$1,301 million).

(b) Diverting such resources for unnecessary military expenditure (See also Item No. 18), and intervention in affairs of other free and independent nations. (See also Item No. 17.)

Panama's expenditures for military purposes have historically been a very small percentage of total government expenditures and Panama has not intervened in the affairs of other free and independent nations. There have been no indications of substantial changes from these traditional policies.

(5) Willing to contribute funds to the project or program.

The GOP's contribution to this project is substantial, being half of total estimated project costs.

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(6) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangements, and making progress toward respect for the rule of law, freedom of expression and of the press, and recognizing the importance of individual freedom, initiative, and private enterprise.

Panama has made substantial progress in social, economic and political reforms. Panama has reformed her tax laws and has improved tax administration substantially. As a result 1969 income tax receipts totaled \$41.0 million, nearly three times the 1963 total of \$15.5 million. Technical assistance financed by the loan is expected to facilitate substantial administrative reforms directed at improving effectiveness, and efficiency of the Government. The GOP efforts in Agrarian Reform have been accelerating and the new administration is moving ahead with a program designed to resolve tenure problems of one-fourth of the approximately 16,000 squatter families located on about 90,000 acres of private land by the end of 1969.

Although there is press censorship and a significant number of political prisoners and exiles under the provisional government, the government is moving in the direction of restoring constitutional rights, and free elections are promised for 1970. The provisional government has emphasized the concepts of self-help and individual initiative in its civic action programs and has given support to private enterprise.

(7) Adhering to the principles of the Act of Bogota and Charter of Punta del Este.

Panama is adhering to the principles of the Act of Bogota and is working to achieve the objectives of the Charter of Punta del Este. In practically every category Panama is ahead of the targets set by the charter or has programs underway which will bring her performance up to the target levels.

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(8) Attempting to repatriate capital invested in other countries by its own citizens

Capital repatriation is not a problem in Panama at the present time.

(9) Otherwise responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.

See answer to (6) above. The government ability to respond to the needs of the people should be materially improved by this loan.

B. Are above factors taken into account in the furnishing of the subject assistance?

Yes.

Treatment of U. S. Citizens

2. FAA §.620(c). If assistance is to government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) debt is not denied or contested by such government?

Panama is not known to be so in default on any debt to a U.S. citizen.

3. FAA §.620(e) (1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing-ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?

Panama is not known to have taken such action.

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4. App. §.106. If country attempts to create distinctions because of their race or religion among Americans in granting personal or commercial access or other rights otherwise available to U.S. citizens generally, what steps (will be) (have been) taken during loan negotiations to influence elimination of such distinctions? Panama is not known to have taken such action.
5. FAA §.620(o); Fishermen's Protective Act, §.5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing vessel on account of its fishing activities in international waters. Panama is not known to have taken such action.
- a. has any deduction required by Fishermen's Protective Act been made?
- b. has complete denial of assistance been considered by A.I.D. Administrator?

Relations with U. S. Government and Other Nations

6. FAA §.620(d). If assistance is for any productive enterprise which will compete in the U.S. with U.S. enterprise, 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.

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7. FAA §.620(i). Has the country permitted, or failed to taken adequate measures to prevent, the damage or destruction by mob action, of U.S.property.

Adequate measures by Panama have been and are being taken.
8. FAA §.620(1). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, in convertibility or confiscation, has the A.I.D. administration within the past year considered denying assistance to such government for this reason?

Panama has signed and instituted such an agreement.
9. FAA §.620(g). Is the government of the recipient country in default on interest or principal of any A.I.D. loan to the country?

Panama is not in default on any A.I.D. loan.
10. FAA §.620(t). Has the country severed diplomatic relations with U.S. ? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?

panama has not severed diplomatic relations.
11. FAA §. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearage taken into account by the A.I.D. Administrator in determining the current A.I.D. Operating Year Budget?

Panama's U.N. obligations are not in default or in arrears.

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12. FAA s.620(a); App. s.107(a) and (b). No.
Does recipient country furnish assistance to Cuba, sell strategic material to Cuba, or permit ships or aircraft under its flag to carry cargoes to or from Cuba.
13. FAA §.620(b). If assistance is to a government, has Secretary of State determined that it is not controlled by the international Communist movement. Yes.
14. FAA §.620(f), App. §.109. Does recipient country have a communist government. No.
15. FAA §.620(i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the U.S. or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression. No.
16. FAA §.620(n); App. 107(b) and 116. No.
Does recipient country furnish goods to North Viet-Nam or permit ships or aircraft under its flag to carry cargoes to or from North Viet-Nam?

Military Expenditures

17. FAA §.620(s). What percentage of country budget is for military expenditures? How much of foreign exchange resources spent on military equipment? Is U.S. P.L.480 or development assistance used for military purposes? Are country's resources devoted to unnecessary military expenditures to a degree which materially interferes with its development? (Consideration of these points to be coordinated with PPC/MAS.)
- State/AID in consultation with the Interagency advisory committee concerned with the implementation of Section 620(s) (the Symington Amendment) of the Foreign Assistance Act of 1961, as amended, has determined (a) that Panama's resources are not being diverted to unnecessary military expenditures to a degree which materially interferes with its development, and (b) that neither U.S. development assistance nor PL 480 sales are diverted by Panama to military purposes. Among the principal factors in this determination are the following:

1. Defense expenditures as a percent of GNP for 1968 were .1%, well below the median of 1.47% for the 16 small countries of the Latin American region, and the trend of this share has been stable.

2. Defense expenditures as a percent of central government expenditures in the 1970 govt. budget are .58%.

3. While data are rough, foreign exchange spent for defense as a percent of imports of goods and services for 1966-1967 appears to have been close to zero.

4. There is no evidence that Panama is making substantial acquisitions of major military investment items which would significantly affect future budgetary requirements.

5. The country team has reported that there is no evidence of U.S. development assistance (or PL480 sales) being diverted to military expenditures.

18. FAA §.620(v) App. §.119. How much spent by country during current U.S. fiscal year for sophisticated military equipment purchases since January 1, 1968? Has corresponding amount been deducted from current OYB, or is the weapons purchase determined by the President to be important to U.S. national security? (Responses to these questions to be coordinated with PPC/MAS.)

None.

CONDITIONS OF THE LOAN

General Soundness

19. FAA §.201(d). Information and conclusion on reasonableness and legality (under laws of country and U.S.) of lending and relending terms of the loan.

The terms of the loan are both legal and reasonable.

20. FAA §.251(b)(2); §.251(e). Information and conclusion on activity's economic and technical soundness. If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds \$100,000 has country submitted to AID an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner.

The economic and technical soundness of the project are discussed in Section III of Part II.

A loan application has been submitted by the GOP on April 9, 1970.

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21. FAA §.251(b). Information and conclusion on capacity of the country to repay the loan, including reasonableness of repayment prospects. There are reasonable prospects of repayment of this loan.
22. FAA §.611(a) (1). Prior to signing of loan will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance? Yes.
23. FAA §. 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 purposes of loan? Borrower's application states that borrowing authority has been requested from the cabinet council. Prior experience indicates that this authority will be timely granted.
24. FAA §. 611(e). If loan is for capital assistance, and all U.S. assistance to project now exceeds \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project? Yes. See Annex II.
25. FAA §.251(b). Information and conclusion on availability of financing from other free-world sources, including private sources within the United States. Financing from other free-world sources, including private U.S. sources, is not available. See Part I, Item 6.

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Loan's Relationship to Achievement
of Country and Regional Goals

26. FAA §.207; §.251(a). Extent to which assistance reflects appropriate emphasis on; (a) encouraging development of democratic economic, political, and social institutions; (b) self-help in meeting the country's food needs; (c) improving availability of trained manpower in the country; (d) programs designed to meet the country's health needs, or (e) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and voluntary agencies; transportation and communication; planning and public administration; urban development; and modernization of existing laws.
- (a) Through increasing the efficiency and responsiveness of the government this project will facilitate development of democratic economic, political and social institutions.
- (b) This project involves substantial contribution by the GOP for human resources development.
- (c) This technical assistance project will substantially improve the skills of a large number of Panamanian government officials, employees and educators.
- (d) This project involves substantial contribution by the GOP for human resources development.
- (e) This project involves substantial contribution by the GOP for human resources development.
27. FAA §. 209. Is project susceptible of execution as part of regional project? If so why is project not so executed?
- No.
28. FAA §. 251(b) (3). Information and conclusion on activity's relationship to, and consistency with, other development activities, and its contribution to realizable long-range objectives.
- The loan is consistent with other development activities and contributes to long range objectives.

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29. FAA §.251(b) (7). Information and conclusion on whether or not the activity to be financed will contribute to the achievement of self-sustaining growth. By increasing effectiveness and efficiency of government the project will contribute to the achievement of self-sustaining growth of Panama.
30. FAA §.281(a). Describe extent to which the loan will contribute to the objective of assuring maximum participation in the task of economic development on the part of the people of the country, through the encouragement of democratic, private, and local governmental institutions. The project is a major effort on the part of the GOP in human resources development to enhance participation in democratic, private and local government institutions.
31. FAA §.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 civic education and training in skills required for effective participation in governmental and political processes essential to self-government. This project is in direct relationship to these requirements.
32. FAA §.601(a). Information and conclusions whether loan will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions. The improvement in education and the increased number of graduates will foster efficiency in industry, agriculture and commerce and contribute to the development efforts of the country.

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33. FAA §.619. If assistance is for newly independent country; is it furnished through multilateral organizations or plans to the maximum extent appropriate? Not Applicable.
34. FAA §.251(h). Information and conclusion on whether the activity is consistent with the findings and recommendations of the Inter-American Committee for the Alliance for Progress in its annual review of national development activities. This activity is consistent with the findings and recommendations of CIAP dated April 7, 1970.
35. FAA §.251(g). Information and conclusion on use of loan to assist in promoting the cooperative movement in Latin America. The loan will not be used to promote cooperatives.
36. FAA §.209; §.251(b) (8). Information and conclusion whether assistance will encourage regional development programs, and contribute to the economic and political integration of Latin America. This project is nationally rather than regionally oriented.

Loan's Effect on U. S. and A.I.D.
Program

37. FAA §.251(b) (6); §.102. Information and conclusion on possible effects of loan on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving the U.S. balance of payments position.
38. FAA §.601(b). Information and conclusion on how the loan will encourage U. S. private trade and investment abroad and how it will encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).
39. FAA §.601(d). If a capital project, are engineering and professional services of U. S. firms and their affiliates used to the maximum extent consistent with the national interest?
40. FAA §.602. Information and conclusion whether U. S. small business will participate equitably in the furnishing of goods and services financed by the loan.

Loan is not detrimental to U.S. economy. Loan funds will be used to procure services of U.S. technicians.

Private U.S. firms will provide much of the services to be financed by the loan.

Yes.

Usual procedures for facilitating U.S. small business participation in AID procurement will be followed.

41. FAA §.620(h). Will the loan promote or assist the foreign aid projects or activities of the Communist-Bloc countries?

No.

42. FAA §.621. If technical assistance is financed by the loan, information and conclusion whether such assistance will be furnished to the fullest extent practicable as goods and professional and other services from private enterprise on a contract basis. If the facilities of other Federal agencies will be utilized, information and conclusion on whether they are particularly suitable, are not competitive with private enterprise, and can be made available without undue interference with domestic programs.

Technical assistance will be provided primarily by private sources.

43. FAA §.252(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions, or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources.

Total resources of loan funds will be used to finance goods and services from private sources.

Loan's Compliance with Specific Requirements

44. FAA §.201(d). Is interest rate of loan at least 2% per annum during grace period and at least 3% per annum thereafter?

Yes.

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45. FAA §.608(a). Information on measures to be taken to utilize U. S. government excess personal property in lieu of the procurement of new items. The loan agreement will include a standard provision for use of excess property where applicable.
46. FAA §.604(a); App. §.108. Will all commodity procurement financed under the loan be from U.S. except as otherwise determined by the President? From the U.S. or other free countries of the Americas south of the United States except Cuba, i. e., A.I.D. Geographic Code 940.
47. FAA §.604(b). What provision is made to prevent financing commodity procurement in bulk at prices higher than adjusted U.S. market price? Procurement under the loan will be by competitive bidding AID/W control audit procedures will insure against paying above market prices.
48. FAA §.604(d). If the host country discriminates against U.S. marine insurance companies, will loan agreement require that marine insurance be placed in the U.S. on commodities financed by the loan? Yes.
49. FAA §.604(e). If off-shore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? No off-shore procurement of agricultural commodity or product is planned.

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50. FAA §.611(b); App. §.101. If loan finances water or water-related land resource construction project, or program, is there a benefit-cost computation made, insofar as practicable, in accordance with the procedures set forth in the Memorandum of the President dated May 15, 1962? **Not Applicable.**
51. FAA §.611(c). If contracts for construction are to be financed, what provision will be made that they be let on a competitive basis to maximum extent practicable? **Competitive bidding will be required.**
52. FAA §.620(g). What provision is there against use of subject assistance to compensate owners for expropriated or nationalized property? **The provisions of the loan authorization and agreement will state the limits of loan financing. No loan funds will be used for acquisition of land by GOP.**
53. FAA §.612(b); §.636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services. **GOP will contribute to cover local costs of the project.**
54. App. §.104. Will any loan funds be used to pay pensions, etc., for military personnel? **No.**

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55. App. §.111. Compliance with requirements for security clearance of U.S. citizen contract personnel
- This requirement will be complied with.
56. App. §.112. If loan is for capital project, is there provision for A.I.D. approval of all contractors and contract terms?
- Yes.
57. App. §.114. Will any loan funds be used to pay U.N. assessments?
- No
58. App. §.115. Compliance with regulations on employment of U.S. and local personnel for funds obligated after April 30, 1964 (Regulation 7).
- This regulation will be complied with.
59. FAA §.636(1). Will any loan funds be used to finance purchase, long-term lease, or exchange of motor vehicle manufactured outside of the United States, or any guaranty of such a transaction?
- No.
60. App. §.401. Will any loan funds be used for publicity or propaganda purposes within U.S. not authorized by the Congress?
- No.
61. FAA §.620(k). If construction of productive enterprise, will aggregate value of assistance to be furnished by U. S. exceed \$100 million?
- Not Applicable.

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SEE OFFICIAL FILES - LA/DR FOR ANNEX IV - National Plan
for Education

ESTIMATED COSTS IDB LOAN (1970-1972)
(\$/000)

ANNEX V
TABLE II

| Activities | 1970 | | | 1971 | | | 1972 | | | SUB-TOTAL | | TOT. GRAL. |
|----------------------------------|------------|------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|--------------|--------------|--------------|
| | BID | A.L. | TOTAL | BID | A.L. | TOTAL | BID | A.L. | TOTAL | BID | A.L. | |
| Design Dev. | | 140 | 140 | | | | | | | | 140 | 140 |
| Site Dev. | | 25 | 25 | 25 | 50 | 75 | | | | 25 | 75 | 100 |
| Construction | 200 | 300 | 500 | 800 | 1,000 | 1,800 | 200 | 327 | 527 | 1,203 | 1,627 | 2,827 |
| * Equipment | 256 | | 256 | 296 | | 296 | 600 | 10 | 610 | 1,152 | 10 | 1,162 |
| Educational Mat'ls. Libraries | 37 | | 37 | 43 | | 43 | 80 | | 80 | 160 | | 160 |
| Furniture | | | | 10 | 30 | 40 | 32 | 68 | 100 | 42 | 98 | 140 |
| Technical Assistance | 90 | 25 | 115 | 135 | 70 | 205 | 150 | 70 | 220 | 375 | 165 | 540 |
| Project Adm'n. Office | 20 | 40 | 60 | 20 | 40 | 60 | 20 | 47 | 67 | 60 | 127 | 187 |
| Inspection Services | 11 | | 11 | 11 | | 11 | 12 | | 12 | 34 | | 34 |
| Contingencies | | | 100 | 150 | 150 | 250 | 250 | 350 | 600 | 350 | 500 | 850 |
| TOTALS | 604 | 530 | 1,144 | 1,440 | 1,340 | 2,780 | 1,344 | 872 | 2,216 | 3,398 | 2,742 | 6,140 |

* Laboratories and equipment for kitchen and dining facilities.

(1)
ESTIMATED COSTS OTHER AGENCIES (\$.000)

ANNEX V
TABLE 2

| OBJECTIVES AND ACTIVITIES | TOTAL | TOTALS | | CAPITAL | | TECHNICAL ASSIS. | | TRAINING | | | | NEW | |
|--|---------------|---------------|---------------|-------------|-------------|------------------|-------------|-----------|------------|---------------|--------------|------------------|----|
| | | GOP | OTHERS | GOP | OTHERS | GOP | OTHERS | GOP | OTHERS | GOP | OTHERS | POSITIONS GOP | |
| Improve Quality of Education | | | | | | | | | | | | | |
| a. Curriculum Development | 7. | 3. | 4. | | | | | 3. | 4. | | | | |
| b. Supervision (2) and Adminis- tration | 4,076. | 1,873. | 2,203. | 311. | 165. | | 724. | | | 1,562. | 1,314. | | |
| c. Teacher Education | 124. | 24. | 100. | | | | | | 69. | 24. | 31. | | |
| d. Teaching Mat'ls. Audio Visual Aids | 14. | 6. | 8. | | | | | | | | | 6. | 8. |
| e. Education Research | 4. | 2. | 2. | | | | | | | | | 2. | 2. |
| TOTAL | 4,225. | 1,908. | 2,317. | 311. | 165. | | 724. | 3. | 73. | 1,594. | 1,355 | | |

1. PNUD, UNICEF, UNESCO, OAS, ODECA

2. a. Project GOP/UNESCO-UNICEF (1969-71)

GOP - 360.
UNESCO- 75.
UNICEF- 187.

TOTAL 622.

b. Project ICASE (1970-1974)

GOP - 1,512.
PNUD - 941.
OAS - 1,000.
TOTAL 3,453.

SOURCE: DIRECCION GENERAL DE EDUCACION. MINISTERIO DE EDUCACION, 23 APRIL 1970

TABLE 3

ANNEX V

MINISTRY OF EDUCATION
SUMMARY OF NATIONAL PLAN IMPLEMENTATION COSTS (1970-1983)
(in 1000's of Dollars)

| Year | Primary | | Secondary | | Vocational | | Teacher Ed. | | Admin. Reform | | Yearly Totals | | Int. & Ext. Sources |
|--------|---------|--------|-----------|--------|------------|--------|-------------|-------|---------------|-------|----------------------|----------------|---------------------|
| | Int. | Ext. | Int. | Ext. | Int. | Ext. | Int. | Ext. | Int. | Ext. | Int. | Ext. | |
| 1970 | 3,335 | 1,225 | 58 | 108 | 142 | 721 | 80 | 1,297 | 967 | 348 | 4,582 | 3,699 | 8,281 |
| 1971 | 3,570 | 1,112 | 356 | 609 | 559 | 2,349 | 189 | 17 | 879 | 1,033 | 5,493 | 5,120 | 10,613 |
| 1972 | 3,969 | 1,197 | 912 | 1,245 | 1,489 | 2,524 | 189 | 16 | 1,966 | 326 | 8,525 | 5,308 | 13,833 |
| 1973 | 2,948 | 780 | 1,382 | 1,147 | 2,441 | 1,820 | 190 | | 1,108 | 158 | 8,069 | 3,905 | 11,974 |
| 1974 | 3,556 | 732 | 1,902 | 1,148 | 3,161 | 1,100 | 189 | | 1,138 | 176 | 9,946 | 3,156 | 13,102 |
| 1975 | 4,302 | 677 | 2,415 | 1,149 | 3,604 | 721 | 189 | | 1,168 | 144 | 11,678 | 2,691 | 14,369 |
| 1976 | 5,060 | 705 | 2,936 | 1,149 | 3,870 | | 190 | | 1,180 | 45 | 13,236 | 1,899 | 15,135 |
| 1977 | 5,821 | 618 | 3,457 | 1,135 | 3,971 | 1,099 | 189 | | 1,186 | 53 | 14,624 | 2,905 | 17,529 |
| 1978 | 6,584 | 627 | 3,977 | 1,135 | 4,320 | | 189 | | 1,210 | 47 | 16,280 | 1,809 | 18,089 |
| 1979 | 7,345 | 637 | 4,496 | 1,135 | 4,372 | 379 | 190 | | 1,210 | 20 | 17,613 | 2,171 | 19,784 |
| 1980 | 8,109 | 646 | 5,018 | 1,135 | 4,539 | 721 | 189 | | 1,210 | 20 | 19,065 | 2,522 | 21,587 |
| 1981 | 8,875 | 675 | 5,538 | 1,135 | 4,824 | 378 | 189 | | 1,210 | 21 | 20,636 | 2,209 | 22,845 |
| 1982 | 9,639 | 708 | 6,057 | 1,135 | 5,001 | 720 | 190 | | 1,210 | 21 | 22,097 | 2,584 | 24,681 |
| 1983 | 10,405 | 744 | 6,280 | 624 | 5,273 | 378 | 189 | | 1,210 | 22 | 23,357 | 1,768 | 25,125 |
| Totals | 83,458 | 11,083 | 44,784 | 13,989 | 47,566 | 12,910 | 2,541 | 1,330 | 16,852 | 2,434 | 195,201 | 41,746 | 236,947 |
| | 94,541 | | 58,773 | | 60,476 | | 3,871 | | 19,286 | | 236,947 | | |
| | | | | | | | | | | | Internal Financing = | \$ 195,201,000 | |
| | | | | | | | | | | | External Financing = | 41,746,000 | |
| | | | | | | | | | | | TOTAL = | 236,947,000 | |

TABLE 4

ANNEX V

PROJECTED AVAILABILITIES FOR EDUCATION 1969-1983

(In Millions of Dollars)

| GDP Av. Annual Rate of Growth | | | | | | | | | | | | | | | | 15 Years Totals |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|
| | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | |
| <u>Gross Domestic Product</u> 1/ | 910 | 974 | 1042 | 1114 | 1181 | 1252 | 1327 | 1407 | 1491 | 1580 | 1675 | 1775 | 1881 | 1994 | 2114 | |
| <u>Government Revenue</u> 2/ | 130 | 140 | 151 | 163 | 174 | 185 | 198 | 211 | 224 | 238 | 253 | 270 | 286 | 305 | 323 | |
| <u>Amount Available for Education</u> 27% 3/ | 35.1 | 37.8 | 40.8 | 44.0 | 47.0 | 50.0 | 53.5 | 57.0 | 60.5 | 64.3 | 68.3 | 73.0 | 77.2 | 82.3 | 87.2 | \$878 M. |
| <u>Cost of Ed. Adjustment</u> (1%) | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | |
| <u>Amount Available</u> - 27% | 35.1 | 37.4 | 40.0 | 42.7 | 45.2 | 47.6 | 50.5 | 53.3 | 56.0 | 59.0 | 62.1 | 65.8 | 68.9 | 72.8 | 76.5 | \$813 M. |
| 2% | 100 | 102 | 104 | 106 | 108 | 110 | 112 | 114 | 116 | 118 | 120 | 122 | 124 | 126 | 128 | |
| <u>Amount Available</u> - 27% | 35.1 | 37.1 | 39.2 | 41.5 | 43.5 | 45.4 | 47.8 | 50.0 | 52.2 | 54.5 | 56.9 | 59.8 | 62.2 | 65.3 | 68.1 | \$759 M. |

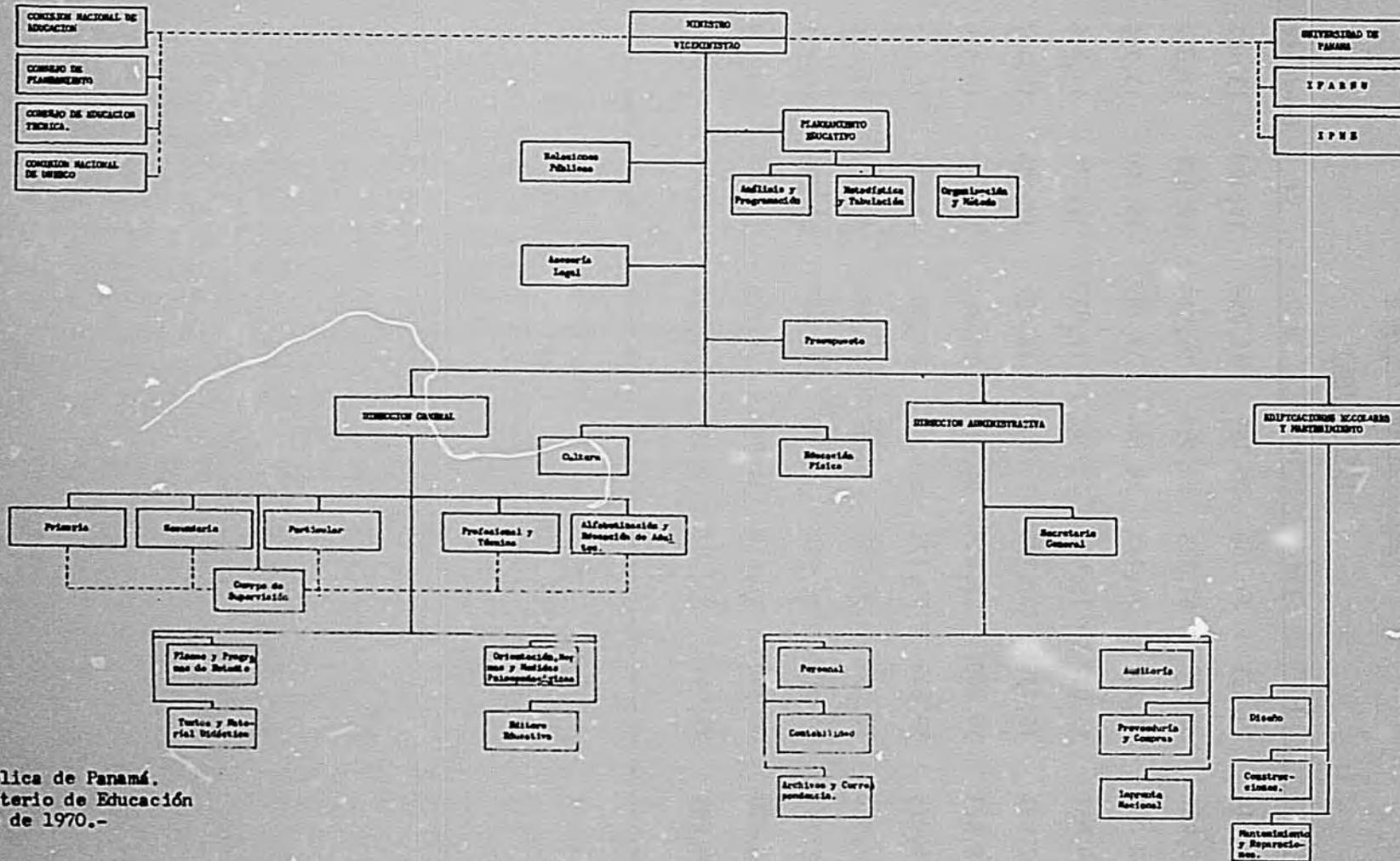
1/ GDP at Market Price in current Balboas (base year 1967) and projected on the assumption that current price is equal to real GDP.

2/ Central Government ordinary revenue.

3/ Based on historical Central Government expenditure (obligations) with respect to revenue and specifically Central Government expenditure for the University and that of the Ministry of Education.

SOURCE: Implementation Bulletin No. 9
National Plan for Education

CHART I



República de Panamá.
 Ministerio de Educación
 Enero de 1970.-

Table I

TOTAL PRIMARY SCHOOL ENROLLMENT

Official and Private

1957 - 1967

| <u>Grades</u> <u>Years</u> | <u>I</u> | <u>II</u> | <u>III</u> | <u>IV</u> | <u>V</u> | <u>VI</u> | <u>Graduates</u> | <u>T O T A L</u> |
|-------------------------------|----------|-----------|------------|-----------|----------|-----------|------------------|------------------|
| 1957 | 33,414 | 29,953 | 24,189 | 23,153 | 16,739 | 15,128 | 13,142 | 142,576 |
| 1958 | 36,961 | 28,668 | 23,335 | 24,049 | 16,515 | 16,052 | 13,882 | 145,580 |
| 1959 | 42,053 | 31,204 | 24,167 | 24,144 | 17,785 | 16,190 | 13,709 | 155,543 |
| 1960 | 44,431 | 33,062 | 25,402 | 23,962 | 17,830 | 17,113 | 14,496 | 161,800 |
| 1961 | 47,692 | 35,157 | 27,776 | 24,843 | 18,432 | 17,259 | 14,797 | 171,159 |
| 1962 | 49,471 | 36,680 | 32,018 | 24,617 | 20,869 | 16,139 | 14,519 | 179,794 |
| 1963 | 46,075 | 39,814 | 34,172 | 27,050 | 21,899 | 17,719 | 16,262 | 186,729 |
| 1964 | 47,918 | 38,239 | 36,988 | 29,832 | 24,129 | 19,306 | 17,670 | 196,412 |
| 1965 | 48,731 | 39,918 | 36,265 | 31,738 | 25,981 | 20,796 | 19,321 | 203,429 |
| 1966 | 50,674 | 40,340 | 37,614 | 31,833 | 27,779 | 22,388 | 20,718 | 210,628 |
| 1967 | 54,254 | 41,797 | 37,183 | 32,673 | 28,324 | 24,244 | 22,336 | 218,475 |

Table 2

PRIVATE AND PUBLIC SECONDARY SCHOOL ENROLLMENT
ACCORDING TO CURRICULUM AND GRADES

1957 - 1966

| Years | Total | Total | First I | Cycle II | III | Gra- duates | T | IV | V | VI | Gra- duates | Tech.or Voc. |
|---------|---------------|---------------|------------|-------------|--------|----------------|---------------|-------|-------|-------|----------------|-----------------|
| 1956-57 | <u>27,298</u> | <u>20,859</u> | 9,373 | 6,520 | 4,966 | 2,102 | <u>6,439</u> | 3,030 | 2,111 | 1,298 | 3,126 | |
| 57-58 | <u>30,710</u> | <u>23,219</u> | 10,468 | 7,205 | 5,546 | 2,474 | <u>7,491</u> | 3,486 | 2,506 | 1,499 | 3,432 | |
| 58-59 | <u>33,223</u> | <u>24,772</u> | 10,646 | 8,050 | 6,076 | 2,450 | <u>8,451</u> | 3,771 | 2,804 | 1,876 | 3,613 | |
| 59-60 | <u>36,055</u> | <u>26,721</u> | 11,566 | 8,495 | 6,660 | 2,203 | <u>9,334</u> | 4,249 | 2,993 | 2,092 | 1,577 | |
| 60-61 | <u>38,874</u> | <u>28,994</u> | 12,805 | 9,146 | 7,043 | 2,870 | <u>9,880</u> | 4,423 | 3,324 | 2,133 | 4,069 | 10,691 |
| 61-62 | <u>42,171</u> | <u>31,939</u> | 14,483 | 10,120 | 7,336 | 3,256 | <u>10,232</u> | 4,465 | 3,524 | 2,243 | 4,488 | 12,836 |
| 62-63 | <u>44,572</u> | <u>33,710</u> | 14,836 | 10,652 | 8,222 | 3,287 | <u>10,862</u> | 4,847 | 3,753 | 2,262 | 4,933 | 14,363 |
| 63-64 | <u>47,087</u> | <u>35,733</u> | 15,296 | 11,593 | 8,844 | 3,529 | <u>11,354</u> | 5,083 | 3,972 | 2,299 | 5,139 | 15,163 |
| 64-65 | <u>50,936</u> | <u>38,736</u> | 16,170 | 12,559 | 10,007 | 3,461 | <u>12,200</u> | 5,242 | 4,321 | 2,637 | 5,907 | 16,799 |
| 65-66 | <u>54,789</u> | <u>41,649</u> | 18,360 | 13,074 | 10,215 | 3,949 | <u>13,140</u> | 5,714 | 4,568 | 2,858 | 5,841 | 18,790 |
| 66-67 | <u>58,408</u> | <u>44,493</u> | 19,159 | 14,477 | 10,857 | 4,769 | <u>13,915</u> | 5,918 | 4,807 | 3,190 | 5,928 | 19,443 |
| 67 | <u>61,767</u> | <u>46,807</u> | 20,277 | 15,209 | 11,321 | 4,657 | <u>14,960</u> | 6,192 | 5,095 | 3,673 | 6,358 | 21,138 |

TABLE 3

ANNEX VI

ELEMENTARY EDUCATION
POPULATION, ENROLLMENT OF AGE 7 to 12 AND PERCENTAGE ACCORDING TO SPECIFIC AGE
IN THE REPUBLIC OF PANAMA BY PROVINCE

| | 1963 | | | 1964 | | | 1965 | | | 1966 | | | 1967 | | | 1968 | | |
|----------------|-------|--------|------|-------|--------|------|-------|--------|------|-------|--------|------|-------|--------|------|-------|--------|------|
| | Pop. | Enrol. | % |
| 7 | 33829 | 26667 | 78.8 | 34925 | 28518 | 81.6 | 36040 | 28582 | 79.3 | 36379 | 29876 | 82.1 | 37556 | 32285 | 86.0 | 38780 | 32129 | 82.8 |
| 8 | 32657 | 28164 | 86.2 | 33715 | 28877 | 85.6 | 34800 | 30444 | 87.5 | 35143 | 31064 | 88.4 | 36284 | 32346 | 89.1 | 37470 | 33634 | 89.8 |
| 9 | 31491 | 27340 | 86.8 | 32511 | 28875 | 88.8 | 33560 | 29445 | 87.7 | 34005 | 31051 | 91.3 | 35112 | 31520 | 89.8 | 36261 | 32751 | 90.3 |
| 10 | 30335 | 26599 | 87.7 | 31317 | 27924 | 89.2 | 32340 | 29113 | 90.0 | 32970 | 29564 | 89.7 | 34046 | 31257 | 91.8 | 35162 | 31329 | 89.1 |
| 11 | 29191 | 24852 | 85.1 | 30135 | 26321 | 87.3 | 31130 | 27410 | 88.0 | 32044 | 28538 | 89.0 | 33095 | 28733 | 86.8 | 34182 | 30001 | 87.8 |
| 12 | 28084 | 21727 | 77.4 | 28992 | 23077 | 79.6 | 29960 | 24174 | 80.7 | 31065 | 24833 | 79.9 | 32086 | 25356 | 79.0 | 33143 | 25581 | 77.2 |
| BOCAS DEL TORO | | | | | | | | | | | | | | | | | | |
| 7 | 1124 | 561 | 49.9 | 1162 | 643 | 55.3 | 1200 | 543 | 45.2 | 1230 | 696 | 56.6 | 1272 | 672 | 52.3 | 1316 | 643 | 48.9 |
| 8 | 1064 | 566 | 53.7 | 1090 | 609 | 55.9 | 1130 | 656 | 58.0 | 1155 | 670 | 58.0 | 1194 | 723 | 60.6 | 1236 | 763 | 61.7 |
| 9 | 985 | 593 | 60.2 | 1019 | 628 | 61.6 | 1050 | 616 | 58.7 | 1080 | 686 | 63.5 | 1117 | 747 | 66.9 | 1157 | 774 | 66.9 |
| 10 | 918 | 501 | 54.6 | 949 | 590 | 62.2 | 980 | 627 | 64.0 | 1007 | 672 | 66.7 | 1042 | 701 | 67.3 | 1079 | 726 | 67.3 |
| 11 | 853 | 511 | 59.9 | 882 | 506 | 57.4 | 910 | 572 | 62.8 | 938 | 644 | 68.6 | 970 | 716 | 73.8 | 1007 | 696 | 69.1 |
| 12 | 786 | 391 | 49.7 | 817 | 449 | 55.0 | 840 | 464 | 55.2 | 869 | 520 | 59.8 | 899 | 590 | 65.6 | 934 | 600 | 64.2 |

Panama, January 1970

TABLE 4

ANNEX VI

VERAGUAS

| | 1 9 6 3 | | | 1 9 6 4 | | | 1 9 6 5 | | | 1 9 6 6 | | | 1 9 6 7 | | | 1 9 6 8 | | |
|-----|---------|--------|------|---------|--------|------|---------|--------|------|---------|--------|------|---------|--------|------|---------|--------|------|
| | Pop. | Enrol. | % |
| 7 | 4464 | 2197 | 49.2 | 4574 | 2464 | 53.9 | 4680 | 2526 | 54.0 | 4787 | 2694 | 56.3 | 4899 | 2918 | 59.6 | 5015 | 2945 | 58.7 |
| 8 | 4292 | 2938 | 68.4 | 4397 | 2732 | 62.1 | 4500 | 3085 | 68.6 | 4600 | 3121 | 67.8 | 4708 | 3198 | 67.9 | 4820 | 3500 | 72.6 |
| 9 | 4109 | 2731 | 66.5 | 4210 | 3146 | 74.7 | 4320 | 2986 | 69.2 | 4407 | 3383 | 76.8 | 4509 | 3309 | 73.4 | 4616 | 3381 | 73.2 |
| 1 0 | 3920 | 2977 | 75.9 | 4018 | 2913 | 72.5 | 4120 | 3263 | 79.2 | 4207 | 3116 | 74.1 | 4304 | 3457 | 80.3 | 4406 | 3406 | 77.3 |
| 1 1 | 3727 | 2774 | 74.4 | 3819 | 2949 | 77.2 | 3910 | 2964 | 75.8 | 4001 | 3239 | 81.0 | 4093 | 2983 | 72.9 | 4189 | 3199 | 76.4 |
| 1 2 | 3551 | 2350 | 66.2 | 3633 | 2672 | 73.5 | 3730 | 2840 | 76.1 | 3809 | 2841 | 74.6 | 3897 | 3014 | 77.3 | 3987 | 2809 | 70.4 |

PANAMA

| | | | | | | | | | | | | | | | | | | |
|----|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 7 | 10629 | 10477 | 98.6 | 11111 | 11016 | 99.1 | 11620 | 11360 | 97.8 | 11375 | 11664 | 102.5 | 11918 | 12827 | 107.6 | 12477 | 12995 | 104.2 |
| 8 | 10322 | 10282 | 99.6 | 10791 | 10879 | 100.8 | 11280 | 11210 | 99.4 | 11069 | 11701 | 105.7 | 11599 | 12417 | 107.0 | 12142 | 13009 | 107.1 |
| 9 | 10045 | 9882 | 98.4 | 10501 | 10436 | 99.4 | 10980 | 11007 | 100.2 | 10881 | 11339 | 104.2 | 11101 | 12004 | 105.3 | 11934 | 12599 | 105.6 |
| 10 | 9789 | 9589 | 98.0 | 10232 | 10130 | 99.0 | 10700 | 10638 | 99.4 | 10807 | 11045 | 102.2 | 11316 | 11425 | 101.0 | 11845 | 11918 | 100.6 |
| 11 | 9545 | 9057 | 94.9 | 9976 | 9539 | 95.6 | 10430 | 10129 | 97.1 | 10841 | 10567 | 97.5 | 11346 | 10900 | 96.1 | 11871 | 11579 | 97.5 |
| 12 | 9339 | 7754 | 83.0 | 9760 | 8161 | 83.6 | 10210 | 8597 | 84.2 | 10826 | 8961 | 82.8 | 11321 | 9149 | 80.8 | 11846 | 9595 | 81.0 |

Panama, January 1970

TABLE 5

ANNEX VI

COCLE

| | 1963 | | | 1964 | | | 1965 | | | 1966 | | | 1967 | | | 1968 | | |
|----|------|--------|------|------|--------|-------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|
| | Pop. | Enrol. | % | Pop. | Enrol. | % | Pop. | Enrol. | % | Pop. | Enrol. | % | Pop. | Enrol. | % | Pop. | Enrol. | % |
| 7 | 3211 | 2679 | 83.4 | 3304 | 2886 | 87.3 | 3400 | 2898 | 85.2 | 3484 | 3074 | 88.2 | 3579 | 3243 | 90.6 | 3680 | 3074 | 83.5 |
| 8 | 3098 | 2853 | 92.1 | 3186 | 2892 | 90.8 | 3280 | 3223 | 98.3 | 3360 | 3188 | 94.9 | 3452 | 3283 | 95.1 | 3549 | 3199 | 90.1 |
| 9 | 2983 | 2911 | 97.6 | 3068 | 2874 | 93.7 | 3150 | 2907 | 92.3 | 3235 | 3226 | 99.7 | 3324 | 3088 | 92.9 | 3418 | 3227 | 94.4 |
| 10 | 2868 | 2767 | 96.5 | 2950 | 2954 | 100.1 | 3030 | 2944 | 97.2 | 3112 | 2954 | 94.9 | 3197 | 3146 | 98.4 | 3287 | 2934 | 89.3 |
| 11 | 2757 | 2612 | 94.7 | 2835 | 2720 | 95.9 | 2920 | 2807 | 96.1 | 2991 | 2822 | 94.3 | 3073 | 2799 | 91.1 | 3160 | 2904 | 91.9 |
| 12 | 2635 | 2221 | 84.3 | 2710 | 2371 | 87.5 | 2790 | 2533 | 90.8 | 2860 | 2518 | 88.0 | 2939 | 2522 | 85.8 | 3021 | 2361 | 78.2 |

COLON

| | | | | | | | | | | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|-------|------|------|-------|
| 7 | 2999 | 2518 | 84.0 | 3047 | 2753 | 90.4 | 3100 | 2485 | 80.2 | 3133 | 2774 | 88.5 | 3178 | 2901 | 91.3 | 3229 | 2989 | 92.6 |
| 8 | 2912 | 2562 | 88.0 | 2959 | 2847 | 96.2 | 2990 | 2942 | 98.4 | 3043 | 2810 | 92.3 | 3088 | 3109 | 100.7 | 3137 | 2999 | 95.6 |
| 9 | 2826 | 2574 | 91.1 | 2870 | 2631 | 91.7 | 2920 | 2835 | 97.1 | 2954 | 3053 | 103.4 | 2997 | 2780 | 92.8 | 3045 | 2935 | 96.4 |
| 10 | 2740 | 2461 | 89.8 | 2782 | 2684 | 96.5 | 2830 | 2591 | 91.6 | 2866 | 2839 | 99.0 | 2910 | 3049 | 104.8 | 2956 | 2779 | 94.0 |
| 11 | 2659 | 2330 | 87.6 | 2699 | 2514 | 93.1 | 2740 | 2591 | 94.6 | 2783 | 2542 | 91.3 | 2876 | 2756 | 97.5 | 2870 | 2876 | 100.2 |
| 12 | 2567 | 2199 | 85.7 | 2604 | 2262 | 86.9 | 2650 | 2293 | 86.5 | 2687 | 2421 | 90.1 | 2731 | 2408 | 88.2 | 2773 | 2451 | 88.4 |

Panama, January 1970

TABLE 6

ANNEX VI

CHIRIQUI

| | 1963 | | | 1964 | | | 1965 | | | 1966 | | | 1967 | | | 1968 | | |
|----|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|
| | Pop. | Enrol. | % |
| 7 | 6496 | 4438 | 68.3 | 6715 | 4820 | 71.8 | 6930 | 4840 | 69.8 | 7144 | 5039 | 70.5 | 7376 | 5377 | 72.9 | 7610 | 5566 | 73.1 |
| 8 | 6226 | 4887 | 78.5 | 6435 | 4772 | 74.2 | 6650 | 5134 | 77.2 | 6852 | 5407 | 78.9 | 7075 | 5388 | 76.2 | 7301 | 5885 | 80.6 |
| 9 | 5951 | 4809 | 80.8 | 6151 | 5067 | 82.4 | 6350 | 4947 | 77.9 | 6555 | 5315 | 81.1 | 6769 | 5384 | 79.5 | 6986 | 5569 | 79.7 |
| 10 | 5675 | 4481 | 79.0 | 5865 | 4751 | 81.0 | 6060 | 5042 | 83.2 | 6256 | 4992 | 79.8 | 6464 | 5232 | 80.9 | 6671 | 5523 | 82.8 |
| 11 | 5401 | 4035 | 74.7 | 5582 | 4400 | 78.8 | 5770 | 4598 | 79.7 | 5961 | 4919 | 82.5 | 6162 | 4739 | 76.9 | 6359 | 4942 | 77.7 |
| 12 | 5132 | 3779 | 73.6 | 5303 | 3834 | 72.3 | 5480 | 4054 | 74.0 | 5669 | 4245 | 74.9 | 5862 | 4277 | 73.0 | 6050 | 4467 | 73.8 |

DARIEN

| | | | | | | | | | | | | | | | | | | |
|----|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|
| 7 | 695 | 523 | 75.2 | 715 | 530 | 74.1 | 730 | 457 | 62.6 | 757 | 518 | 68.4 | 775 | 620 | 80.0 | 797 | 419 | 52.6 |
| 8 | 650 | 549 | 84.5 | 669 | 562 | 84.0 | 690 | 530 | 76.8 | 709 | 495 | 69.8 | 726 | 574 | 79.1 | 748 | 486 | 65.0 |
| 9 | 604 | 564 | 93.4 | 622 | 532 | 85.5 | 640 | 522 | 81.6 | 659 | 501 | 76.0 | 677 | 549 | 81.1 | 697 | 487 | 69.9 |
| 10 | 558 | 454 | 81.4 | 574 | 522 | 90.9 | 590 | 498 | 84.4 | 609 | 470 | 77.2 | 626 | 550 | 87.8 | 645 | 388 | 60.2 |
| 11 | 510 | 398 | 78.0 | 525 | 400 | 76.2 | 540 | 459 | 85.0 | 558 | 434 | 77.8 | 575 | 406 | 70.6 | 593 | 382 | 64.4 |
| 12 | 468 | 350 | 74.8 | 482 | 360 | 74.7 | 500 | 383 | 76.6 | 512 | 402 | 78.5 | 528 | 373 | 70.6 | 544 | 333 | 61.2 |

Panama, January 1970

TABLE 7

ANNEX VI

HERRERA

| | 1963 | | | 1964 | | | 1965 | | | 1966 | | | 1967 | | | 1968 | | |
|----|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|
| | Pop. | Enrol. | % |
| 7 | 1938 | 1453 | 75.0 | 1982 | 1646 | 83.0 | 2030 | 1605 | 79.1 | 2078 | 1682 | 80.9 | 2128 | 1780 | 83.6 | 2182 | 1702 | 78.0 |
| 8 | 1877 | 1598 | 85.1 | 1920 | 1682 | 87.6 | 1970 | 1783 | 90.5 | 2013 | 1715 | 85.2 | 2061 | 1793 | 87.0 | 2114 | 1814 | 85.8 |
| 9 | 1816 | 1492 | 82.2 | 1857 | 1698 | 91.4 | 1900 | 1706 | 89.8 | 1947 | 1671 | 85.8 | 1994 | 1787 | 89.6 | 2044 | 1842 | 90.1 |
| 10 | 1753 | 1522 | 86.8 | 1793 | 1568 | 87.4 | 1840 | 1673 | 90.9 | 1880 | 1638 | 87.1 | 1925 | 1835 | 95.3 | 1972 | 1705 | 86.5 |
| 11 | 1686 | 1476 | 87.5 | 1725 | 1490 | 86.4 | 1770 | 1527 | 86.3 | 1809 | 1580 | 87.3 | 1852 | 1586 | 85.6 | 1897 | 1606 | 84.6 |
| 12 | 1627 | 1161 | 71.4 | 1665 | 1438 | 86.4 | 1710 | 1408 | 82.3 | 1746 | 1362 | 78.0 | 1788 | 1471 | 82.3 | 1831 | 1374 | 75.0 |

LOS SANTOS

| | | | | | | | | | | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 7 | 2273 | 1821 | 80.1 | 2315 | 1760 | 76.0 | 2350 | 1868 | 79.5 | 2391 | 1735 | 72.6 | 2431 | 1947 | 80.1 | 2474 | 1797 | 72.6 |
| 8 | 2226 | 1929 | 86.6 | 2268 | 1902 | 83.9 | 2310 | 1881 | 81.4 | 2342 | 1957 | 83.6 | 2381 | 1861 | 78.2 | 2423 | 1978 | 81.6 |
| 9 | 2172 | 1784 | 82.1 | 2213 | 1863 | 84.2 | 2250 | 1917 | 85.2 | 2287 | 1877 | 82.1 | 2324 | 1972 | 84.8 | 2364 | 1931 | 81.7 |
| 10 | 2114 | 1847 | 87.4 | 2154 | 1812 | 84.1 | 2190 | 1837 | 83.9 | 2226 | 1840 | 82.6 | 2262 | 1862 | 82.3 | 2301 | 1949 | 84.7 |
| 11 | 2053 | 1659 | 80.8 | 2092 | 1803 | 86.2 | 2140 | 1763 | 82.4 | 2162 | 1791 | 82.8 | 2198 | 1848 | 84.1 | 2236 | 1820 | 81.4 |
| 12 | 1979 | 1522 | 76.9 | 2018 | 1530 | 75.8 | 2050 | 1602 | 78.1 | 2087 | 1563 | 74.9 | 2121 | 1552 | 73.2 | 2157 | 1520 | 70.5 |

TABLE 8

ANNEX VI

INTER-MEDIA EDUCATION

POPULATION, ENROLLMENT OF AGE 13 TO 18 AND PERCENTAGE ACCORDING TO SPECIFIC AGE
IN THE REPUBLIC OF PANAMA BY PROVINCE

| | 1 9 6 3 | | | 1 9 6 4 | | | 1 9 6 5 | | | 1 9 6 6 | | | 1 9 6 7 | | | 1 9 6 8 | | |
|-----|---------|--------|------|---------|--------|------|---------|--------|------|---------|--------|------|---------|--------|------|---------|--------|------|
| | Pop. | Enrol. | % |
| :13 | 27029 | 5344 | 19.8 | 27903 | 5854 | 21.0 | 28840 | 6323 | 21.9 | 29955 | 6372 | 21.3 | 30940 | 6936 | 22.4 | 31960 | 7506 | 23.5 |
| :14 | 26021 | 7303 | 28.1 | 26863 | 7956 | 29.6 | 27770 | 8122 | 29.2 | 28776 | 8486 | 29.5 | 29723 | 9154 | 30.8 | 30703 | 10180 | 33.2 |
| :15 | 25036 | 7662 | 30.6 | 25847 | 8040 | 31.1 | 26730 | 8780 | 32.8 | 27668 | 9334 | 33.7 | 28578 | 9520 | 33.3 | 29520 | 10415 | 35.3 |
| :16 | 24070 | 6998 | 29.1 | 24849 | 7357 | 29.6 | 25700 | 7946 | 30.9 | 26593 | 8386 | 31.5 | 27468 | 9197 | 33.5 | 28372 | 9673 | 34.1 |
| :17 | 23182 | 6068 | 26.2 | 23933 | 6280 | 26.2 | 24760 | 7012 | 28.3 | 25604 | 7206 | 28.1 | 26445 | 8102 | 30.6 | 27316 | 8090 | 29.6 |
| :18 | 22400 | 4625 | 20.6 | 23126 | 4941 | 21.4 | 23920 | 5559 | 23.2 | 24737 | 5928 | 24.0 | 25548 | 6305 | 24.7 | 26389 | 6273 | 23.8 |

Panama, January 1970.

TABLE 9

ANNEX VI

INTER-MEDIA EDUCATIONPOPULATION, ENROLLMENT OF AGE 13 TO 18 AND PERCENTAGE ACCORDING TO SPECIFIC AGE
IN THE REPUBLIC OF PANAMA BY PROVINCEP A N A M A

| Age | 1 9 6 6 | | | 1 9 6 7 | | | 1 9 6 8 | | |
|-----|------------|------------|------|------------|------------|------|------------|------------|------|
| | Population | Enrollment | % | Population | Enrollment | % | Population | Enrollment | % |
| 13 | 10679 | 3982 | 37.3 | 11165 | 4279 | 38.3 | 11679 | 4509 | 38.6 |
| 14 | 10447 | 5071 | 48.5 | 10922 | 5413 | 49.6 | 11419 | 6130 | 53.7 |
| 15 | 10265 | 5588 | 54.4 | 10728 | 5606 | 52.2 | 11212 | 6215 | 55.4 |
| 16 | 10115 | 5010 | 49.5 | 10569 | 5616 | 53.1 | 11042 | 5917 | 53.6 |
| 17 | 9902 | 4378 | 44.2 | 10344 | 4976 | 48.1 | 10802 | 4854 | 44.9 |
| 18 | 9594 | 3711 | 38.7 | 10019 | 4053 | 40.4 | 10459 | 4215 | 40.3 |

V E R A G U A S

| | | | | | | | | | |
|----|------|-----|------|------|-----|------|------|-----|------|
| 13 | 3641 | 301 | 8.3 | 3725 | 329 | 8.8 | 3812 | 373 | 9.8 |
| 14 | 3492 | 415 | 11.9 | 3571 | 493 | 13.8 | 3656 | 490 | 13.4 |
| 15 | 3344 | 477 | 14.3 | 3419 | 492 | 14.4 | 3501 | 548 | 15.6 |
| 16 | 3199 | 479 | 15.0 | 3269 | 470 | 14.4 | 3348 | 521 | 15.6 |
| 17 | 3068 | 468 | 15.2 | 3135 | 463 | 14.8 | 3211 | 494 | 15.4 |
| 18 | 2954 | 348 | 11.8 | 3019 | 369 | 12.2 | 3092 | 425 | 13.7 |

TABLE 10

ANNEX VI

INTER-MEDIA EDUCATIONPOPULATION, ENROLLMENT OF AGE 13 TO 18 AND PERCENTAGE ACCORDING TO SPECIFIC AGEIN THE REPUBLIC OF PANAMA BY PROVINCELOS SANTOS

| Age | 1 9 6 6 | | | 1 9 6 7 | | | 1 9 6 8 | | |
|-----|------------|------------|------|------------|------------|------|------------|------------|------|
| | Population | Enrollment | % | Population | Enrollment | % | Population | Enrollment | % |
| 13 | 1994 | 157 | 7.9 | 2027 | 199 | 9.8 | 2061 | 271 | 13.1 |
| 14 | 1891 | 200 | 10.6 | 1922 | 234 | 12.2 | 1955 | 359 | 18.4 |
| 15 | 1788 | 186 | 10.4 | 1818 | 225 | 12.4 | 1849 | 306 | 16.5 |
| 16 | 1682 | 168 | 10.0 | 1711 | 172 | 10.0 | 1740 | 206 | 11.8 |
| 17 | 1586 | 118 | 7.4 | 1615 | 125 | 7.7 | 1642 | 177 | 10.8 |
| 18 | 1509 | 76 | 5.0 | 1536 | 82 | 5.3 | 1563 | 113 | 7.2 |

TABLE 11

ANNEX VI

INTER-MEDIA EDUCATIONPOPULATION, ENROLLMENT OF AGE 13 TO 18 AND PERCENTAGE ACCORDING TO SPECIFIC AGE
IN THE REPUBLIC OF PANAMA BY PROVINCE

| Age | 1 9 6 6 | | | <u>D A R I E N</u> 1 9 6 7 | | | 1 9 6 8 | | |
|----------------------|------------|------------|------|-------------------------------|------------|------|------------|------------|------|
| | Population | Enrollment | % | Population | Enrollment | % | Population | Enrollment | % |
| 13 | 472 | 18 | 3.8 | 488 | 18 | 3.7 | 502 | 9 | 1.8 |
| 14 | 439 | 39 | 8.9 | 453 | 24 | 5.3 | 466 | 31 | 6.6 |
| 15 | 407 | 24 | 5.9 | 419 | 41 | 9.8 | 431 | 21 | 4.9 |
| 16 | 374 | 19 | 5.1 | 385 | 22 | 5.7 | 395 | 35 | 8.9 |
| 17 | 356 | 10 | 2.8 | 365 | 14 | 3.8 | 375 | 10 | 2.7 |
| 18 | 359 | 8 | 2.2 | 368 | 9 | 2.4 | 377 | 11 | 2.9 |
| <u>H E R R E R A</u> | | | | | | | | | |
| 13 | 1698 | 270 | 15.9 | 1738 | 295 | 17.0 | 1781 | 308 | 17.3 |
| 14 | 1657 | 354 | 21.4 | 1697 | 389 | 22.9 | 1739 | 406 | 23.3 |
| 15 | 1616 | 317 | 19.6 | 1654 | 344 | 20.8 | 1696 | 348 | 20.5 |
| 16 | 1578 | 299 | 18.9 | 1615 | 322 | 19.9 | 1656 | 311 | 18.8 |
| 17 | 1528 | 232 | 15.2 | 1564 | 301 | 19.2 | 1606 | 266 | 16.6 |
| 18 | 1462 | 210 | 14.4 | 1497 | 226 | 15.1 | 1536 | 189 | 12.3 |

TABLE 12

ANNEX VI

INTER-MEDIA EDUCATIONPOPULATION, ENROLLMENT OF AGE 13 TO 18 AND PERCENTAGE ACCORDING TO SPECIFIC AGE
IN THE REPUBLIC OF PANAMA BY PROVINCE

| Age | C O L O N | | | C O C L E | | | | | |
|-----|------------|------------|---------|------------|------------|---------|------------|------------|------|
| | 1 9 6 6 | 1 9 6 7 | 1 9 6 8 | 1 9 6 6 | 1 9 6 7 | 1 9 6 8 | | | |
| | Population | Enrollment | % | Population | Enrollment | % | Population | Enrollment | % |
| 13 | 2574 | 512 | 19.9 | 2615 | 536 | 20.5 | 2655 | 535 | 20.2 |
| 14 | 2450 | 958 | 39.1 | 2488 | 918 | 36.9 | 2526 | 800 | 31.7 |
| 15 | 2330 | 1075 | 46.1 | 2366 | 1102 | 46.6 | 2402 | 917 | 38.2 |
| 16 | 2211 | 1014 | 45.9 | 2245 | 1094 | 48.7 | 2279 | 774 | 34.0 |
| 17 | 2102 | 923 | 43.9 | 2133 | 972 | 45.6 | 2165 | 664 | 30.7 |
| 18 | 2006 | 812 | 40.5 | 2036 | 681 | 33.4 | 2066 | 474 | 22.9 |
| 13 | 2712 | 316 | 11.6 | 2785 | 338 | 12.1 | 2864 | 392 | 13.7 |
| 14 | 2555 | 368 | 14.4 | 2625 | 403 | 15.4 | 2698 | 459 | 17.0 |
| 15 | 2402 | 384 | 16.0 | 2459 | 369 | 14.9 | 2537 | 403 | 15.9 |
| 16 | 2249 | 281 | 12.5 | 2312 | 273 | 11.8 | 2375 | 283 | 11.9 |
| 17 | 2119 | 188 | 8.9 | 2178 | 186 | 8.5 | 2237 | 218 | 9.7 |
| 18 | 2022 | 97 | 4.8 | 2079 | 112 | 5.4 | 2135 | 116 | 5.4 |

TABLE 13

ANNEX VI

INTER-MEDIA EDUCATIONPOPULATION, ENROLLMENT OF AGE 13 TO 18 AND PERCENTAGE ACCORDING TO SPECIFIC AGEIN THE REPUBLIC OF PANAMA BY PROVINCEB O C A S D E L T O R O

| Age | 1 9 6 6 | | | 1 9 6 7 | | | 1 9 6 8 | | |
|-----|------------|------------|------|------------|------------|------|------------|------------|------|
| | Population | Enrollment | % | Population | Enrollment | % | Population | Enrollment | % |
| 13 | 801 | 45 | 5.6 | 828 | 55 | 6.6 | 860 | 57 | 6.6 |
| 14 | 735 | 59 | 8.0 | 761 | 91 | 12.0 | 790 | 99 | 12.5 |
| 15 | 674 | 91 | 13.5 | 698 | 123 | 17.6 | 724 | 118 | 16.3 |
| 16 | 610 | 81 | 13.3 | 632 | 104 | 16.4 | 655 | 126 | 19.2 |
| 17 | 580 | 91 | 15.7 | 600 | 95 | 15.8 | 622 | 95 | 15.3 |
| 18 | 598 | 45 | 7.5 | 618 | 55 | 8.9 | 643 | 85 | 13.2 |

TABLE 14

ANNEX VI

INTER-MEDIA EDUCATION

POPULATION, ENROLLMENT OF AGE 13 TO 18 AND PERCENTAGE ACCORDING TO SPECIFIC AGE

IN THE REPUBLIC OF PANAMA BY PROVINCE

C H I R I Q U I

| Age | 1 9 6 6 | | | 1 9 6 7 | | | 1 9 6 8 | | |
|-----|------------|------------|------|------------|------------|------|------------|------------|------|
| | Population | Enrollment | % | Population | Enrollment | % | Population | Enrollment | % |
| 13 | 5384 | 771 | 14.3 | 5568 | 887 | 15.9 | 5746 | 938 | 16.3 |
| 14 | 5110 | 1022 | 20.0 | 5284 | 1189 | 22.5 | 5454 | 1229 | 22.5 |
| 15 | 4842 | 1192 | 24.6 | 5007 | 1218 | 24.3 | 5168 | 1255 | 24.3 |
| 16 | 4575 | 1035 | 22.6 | 4730 | 1124 | 23.8 | 4882 | 1222 | 25.0 |
| 17 | 4363 | 798 | 18.3 | 4511 | 970 | 21.5 | 4656 | 1067 | 22.9 |
| 18 | 4233 | 621 | 14.7 | 4376 | 718 | 16.4 | 4518 | 885 | 19.6 |

TABLE 15

ANNEX VI

UNIVERSITY OF PANAMA - ENROLLMENT BY COLLEGES, 1957 - 1966

| COLLEGES | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | Average % Increase |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| Total University Enrollment | 2,829 | 3,320 | 3,419 | 3,915 | 4,227 | 5,056 | 5,433 | 5,994 | 6,859 | 7,652 | 17.0 |
| Public Administration and Commerce | 686 | 713 | 702 | 730 | 898 | 1,049 | 1,186 | 1,453 | 1,658 | 1,961 | 18.6 |
| Agronomy | | | | | | | | | 156 | 145 | -7.6 |
| Architecture | | | | | | 242 | 237 | 249 | 313 | 322 | 6.6 |
| Natural Sciences and Pharmacy | 570 | 637 | 678 | 814 | 860 | 1,094 | 1,226 | 1,330 | 1,574 | 1,744 | 20.6 |
| Law and Political Sciences | 147 | 175 | 193 | 227 | 238 | 274 | 256 | 272 | 339 | 392 | 13.1 |
| Philosophy, Humanities and Education | 1,032 | 1,351 | 1,368 | 1,551 | 1,665 | 1,983 | 2,070 | 2,161 | 2,340 | 2,638 | 15.6 |
| Engineering | 336 | 391 | 415 | 516 | 465 | 311 | 362 | 430 | 352 | 329 | -9 |
| Medicine | 58 | 53 | 63 | 77 | 101 | 103 | 96 | 99 | 127 | 121 | 8.6 |

TABLE 16

INITIAL AND FINAL ENROLLMENT AND DROP-OUTS IN THE SECONDARY SCHOOLOFFICIAL 1957-58 TO 1966

| Year | Initial Enrollment | Final Enrollment | Drop-Outs | % |
|-------------------|--------------------|------------------|-----------|-----|
| 1957-58 | 19,848 | 19,061 | 787 | 4.0 |
| 1958-59 | 21,627 | 20,767 | 860 | 4.0 |
| 1959-60 | 22,308 | 21,072 | 1,236 | 5.5 |
| 1960-61 | 23,249 | 21,937 | 1,312 | 5.6 |
| 1961-62 | 24,296 | 22,540 | 1,756 | 7.2 |
| 1962-63 | 25,967 | 24,270 | 1,697 | 6.5 |
| 1963-64 | 27,248 | 25,579 | 1,669 | 6.1 |
| 1964-65 | 29,793 | 28,136 | 1,657 | 5.6 |
| 1965 | 31,531 | 29,937 | 1,594 | 5.0 |
| 1966 | 34,765 | 32,866 | 1,899 | 5.5 |
| <hr/> | | | | |
| First Cycle: | | | | |
| 1957-58 | 14,127 | 13,527 | 600 | 4.2 |
| 1958-59 | 15,201 | 14,559 | 642 | 4.2 |
| 1959-60 | 14,451 | 14,462 | 989 | 6.4 |
| 1960-61 | 15,930 | 14,949 | 981 | 6.2 |
| 1961-62 | 16,704 | 15,305 | 1,399 | 8.4 |
| 1962-63 | 17,711 | 16,528 | 1,183 | 6.7 |
| 1963-64 | 18,715 | 17,580 | 1,135 | 6.1 |
| 1964-65 | 20,639 | 19,448 | 1,191 | 5.8 |
| 1965 | 21,921 | 20,716 | 1,205 | 5.5 |
| 1966 | 24,276 | 22,800 | 1,476 | 6.1 |
| <hr/> | | | | |
| Academic Program: | | | | |
| 1957-58 | 2,156 | 2,084 | 72 | 3.3 |
| 1958-59 | 2,502 | 2,410 | 92 | 3.7 |
| 1959-60 | 3,218 | 3,106 | 112 | 3.5 |
| 1960-61 | 3,696 | 3,532 | 164 | 4.4 |
| 1961-62 | 4,089 | 3,863 | 226 | 5.5 |
| 1962-63 | 3,943 | 3,738 | 205 | 5.2 |
| 1963-64 | 4,168 | 3,941 | 227 | 5.4 |
| 1964-65 | 4,355 | 4,171 | 184 | 4.2 |
| 1965 | 4,700 | 4,509 | 191 | 4.1 |
| 1966 | 5,047 | 4,859 | 188 | 3.7 |

TABLE 17

PRIMARY TEACHERS AND DIRECTORS ALSO IN CHARGE OF GRADES AT
THE OFFICIAL PRIMARY SCHOOLS ACCORDING TO THE NUMBER
OF GRADES TAUGHT BY PROVINCE
1963

| <u>Province</u> | <u>Total</u> | <u>One Grade</u> | <u>Two Grades</u> | <u>Three Grades</u> | <u>Four Grades</u> | <u>Five Grades</u> | <u>Six Grades</u> |
|-----------------|--------------|----------------------|-----------------------|-------------------------|------------------------|------------------------|-----------------------|
| Republic | 5,562 | 3,953 | 986 | 404 | 186 | 22 | 11 |
| Bocas del Toro | 114 | 74 | 16 | 7 | 11 | 3 | 3 |
| Coclé | 607 | 381 | 150 | 56 | 18 | 1 | 1 |
| Colón | 469 | 363 | 72 | 16 | 14 | 3 | 1 |
| Chiriquí | 955 | 670 | 239 | 40 | 6 | 0 | 0 |
| Darién | 118 | 84 | 21 | 10 | 3 | 0 | 0 |
| Herrera | 339 | 205 | 63 | 47 | 22 | 2 | 0 |
| Los Santos | 471 | 255 | 116 | 67 | 30 | 3 | 0 |
| Panamá | 1,849 | 1,606 | 144 | 64 | 30 | 4 | 5 |
| Veraguas | 640 | 319 | 165 | 97 | 52 | 6 | 1 |

1964

| | | | | | | | |
|----------------|-------|-------|-------|-----|-----|----|----|
| Republic | 5,715 | 3,925 | 1,008 | 445 | 237 | 76 | 24 |
| Bocas del Toro | 124 | 74 | 17 | 15 | 8 | 5 | 5 |
| Coclé | 618 | 390 | 150 | 61 | 31 | 5 | 1 |
| Colón | 485 | 369 | 65 | 24 | 15 | 7 | 5 |
| Chiriquí | 956 | 633 | 210 | 84 | 25 | 4 | 0 |
| Darién | 119 | 82 | 17 | 13 | 5 | 2 | 0 |
| Herrera | 360 | 210 | 81 | 29 | 31 | 8 | 1 |
| Los Santos | 471 | 239 | 106 | 80 | 32 | 13 | 1 |
| Panamá | 1,901 | 1,621 | 171 | 56 | 33 | 13 | 7 |
| Veraguas | 681 | 327 | 191 | 83 | 57 | 19 | 4 |

PRIMARY TEACHERS AND DIRECTORS ALSO IN CHARGE OF GRADES AT
THE OFFICIAL PRIMARY SCHOOLS ACCORDING TO THE NUMBER
OF GRADES TAUGHT BY PROVINCE
1965

| <u>Province</u> | <u>Total</u> | <u>One Grade</u> | <u>Two Grades</u> | <u>Three Grades</u> | <u>Four Grades</u> | <u>Five Grades</u> | <u>Six Grades</u> |
|-----------------|--------------|----------------------|-----------------------|-------------------------|------------------------|------------------------|-----------------------|
| Republic | 6,007 | 4,092 | 1,061 | 455 | 260 | 109 | 30 |
| Bocas del Toro | 129 | 78 | 21 | 7 | 13 | 6 | 4 |
| Coclé | 639 | 379 | 145 | 70 | 31 | 11 | 3 |
| Colón | 505 | 372 | 71 | 38 | 14 | 4 | 6 |
| Chiriquí | 1,008 | 677 | 220 | 73 | 30 | 6 | 2 |
| Darién | 122 | 85 | 16 | 12 | 6 | 2 | 1 |
| Herrera | 381 | 207 | 91 | 32 | 31 | 17 | 3 |
| Los Santos | 484 | 245 | 114 | 63 | 36 | 21 | 2 |
| Panamá | 2,009 | 1,700 | 182 | 63 | 44 | 15 | 5 |
| Veraguas | 733 | 349 | 201 | 97 | 55 | 27 | 4 |

1966

| | | | | | | | |
|----------------|-------|-------|-------|-----|-----|----|----|
| Republic | 6,306 | 4,311 | 1,042 | 548 | 234 | 63 | 55 |
| Bocas del Toro | 130 | 75 | 16 | 17 | 10 | 7 | 5 |
| Coclé | 788 | 391 | 142 | 93 | 29 | 7 | 2 |
| Colón | 521 | 385 | 71 | 34 | 15 | 6 | 6 |
| Chiriquí | 1,036 | 689 | 223 | 90 | 30 | 2 | 1 |
| Darién | 114 | 69 | 24 | 13 | 3 | 0 | 5 |
| Herrera | 390 | 223 | 78 | 50 | 30 | 8 | 1 |
| Los Santos | 490 | 262 | 109 | 62 | 37 | 9 | 11 |
| Panamá | 2,134 | 1,840 | 170 | 78 | 22 | 13 | 11 |
| Veraguas | 768 | 348 | 209 | 129 | 58 | 11 | 13 |

PRIMARY TEACHERS AND DIRECTORS ALSO IN CHARGE OF GRADES AT
THE OFFICIAL PRIMARY SCHOOLS ACCORDING TO THE NUMBER
OF GRADES TAUGHT BY PROVINCE
1967

| <u>Province</u> | <u>Total</u> | <u>One Grade</u> | <u>Two Grades</u> | <u>Three Grades</u> | <u>Four Grades</u> | <u>Five Grades</u> | <u>Six Grades</u> |
|-----------------|--------------|----------------------|-----------------------|-------------------------|------------------------|------------------------|-----------------------|
| Republic | 6,675 | 464 | 1,192 | 529 | 178 | 73 | 62 |
| Bocas del Toro | 136 | 73 | 15 | 8 | 6 | 5 | 9 |
| Coclé | 674 | 427 | 147 | 68 | 26 | 5 | 1 |
| Colón | 536 | 413 | 63 | 35 | 8 | 4 | 13 |
| Chiriquí | 1,128 | 788 | 228 | 95 | 14 | 3 | 0 |
| Darién | 112 | 69 | 20 | 14 | 2 | 3 | 4 |
| Herrera | 403 | 252 | 87 | 34 | 24 | 5 | 1 |
| Los Santos | 513 | 263 | 135 | 51 | 33 | 17 | 14 |
| Panamá | 2,378 | 1,969 | 278 | 90 | 16 | 11 | 14 |
| Veraguas | 795 | 367 | 219 | 134 | 49 | 20 | 6 |

TABLE 20

TEACHING PERSONNEL OF PRIMARY OFFICIAL SCHOOLS ACCORDING TO EDUCATION ATTAINMENT AND SEX

1 9 6 3-6 4 TO 1 9 6 7

| School Year & Education Attainment | T O T A L | | | GRADE TEACHERS | | | DIRECTORS ALSO IN CHARGE OF GRADE | | | TEACHERS FOR SPECIAL SUBJECTS | | |
|---|-----------|-------|--------|----------------|-------|--------|--------------------------------------|------|--------|----------------------------------|------|--------|
| | Total | Male | Female | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| 1963-64 | 5,922 | 1,074 | 4,848 | 5,454 | 935 | 4,519 | 109 | 58 | 51 | 359 | 81 | 278 |
| Graduates * | 5,660 | 978 | 4,682 | 5,243 | 862 | 4,381 | 109 | 58 | 51 | 308 | 58 | 250 |
| Non-Graduates | 262 | 96 | 166 | 211 | 73 | 138 | 0 | 0 | 0 | 51 | 23 | 28 |
| 1964-65 | 6,063 | 1,106 | 4,957 | 5,629 | 988 | 4,641 | 97 | 44 | 53 | 337 | 74 | 263 |
| Graduates * | 5,854 | 1,032 | 4,822 | 5,464 | 933 | 4,531 | 97 | 44 | 53 | 293 | 55 | 238 |
| Non-Graduates | 209 | 74 | 135 | 165 | 55 | 110 | 0 | 0 | 0 | 44 | 19 | 25 |
| 1965 | 6,357 | 1,158 | 5,199 | 5,937 | 1,036 | 4,901 | 110 | 54 | 56 | 310 | 68 | 242 |
| Graduates * | 6,162 | 1,096 | 5,066 | 5,779 | 990 | 4,789 | 110 | 54 | 56 | 273 | 52 | 221 |
| Non-Graduates | 195 | 62 | 133 | 158 | 46 | 112 | 0 | 0 | 0 | 37 | 16 | 21 |
| 1966 | 6,605 | 1,192 | 5,413 | 6,195 | 1,071 | 5,124 | 111 | 59 | 52 | 299 | 62 | 237 |
| Graduates * | 6,433 | 1,133 | 5,300 | 6,056 | 1,027 | 5,029 | 111 | 59 | 52 | 266 | 47 | 219 |
| Non-Graduates | 172 | 59 | 113 | 139 | 44 | 95 | 0 | 0 | 0 | 33 | 15 | 16 |
| 1967 | 6,982 | 1,224 | 5,758 | 6,525 | 1,077 | 5,448 | 150 | 83 | 67 | 307 | 64 | 243 |
| Graduates * | 6,812 | 1,161 | 5,651 | 6,381 | 1,025 | 5,356 | 148 | 81 | 67 | 283 | 55 | 228 |
| Non-Graduates | 170 | 63 | 107 | 144 | 52 | 92 | 2 | 2 | 0 | 24 | 9 | 15 |

* GRADUATES OF AT LEAST A NORMAL SCHOOL AT SECONDARY LEVEL, OR SECONDARY SCHOOL GRADUATES

TABLE 21

ANNEX VI

TEACHING PERSONNEL OF OFFICIAL SECONDARY AND VOCATIONAL SCHOOLS
ACCORDING TO EDUCATION ATTAINMENT AND SEX

YEARS: 1963-64 to 1967

| School Year | TOTAL | | | WITH UNIVERSITY DEGREE | | | | | | WITHOUT UNIVERSITY DEGREE | | | |
|----------------|-------|------|--------|------------------------|------|--------|--------|------|--------|---------------------------|------|------|--------|
| | | | | OF PROFESSOR | | | OTHERS | | | Total | % | Male | Female |
| | Total | Male | Female | Total | Male | Female | Total | Male | Female | | | | |
| 1963-64 | 1,029 | 547 | 745 | 816 | 269 | 547 | 145 | 73 | 72 | 331 | 25.6 | 205 | 126 |
| 1964-65 | 1,428 | 608 | 820 | 925 | 311 | 614 | 158 | 87 | 71 | 345 | 24.2 | 210 | 135 |
| 1965 | 1,460 | 627 | 833 | 927 | 323 | 604 | 205 | 103 | 102 | 328 | 22.5 | 201 | 127 |
| 1966 | 1,601 | 679 | 922 | 1,029 | 381 | 688 | 207 | 119 | 88 | 325 | 20.3 | 179 | 146 |
| 1967 | 1,745 | 751 | 994 | 1,067 | 370 | 697 | 224 | 133 | 91 | 454 | 26.0 | 248 | 206 |

TABLE 22

TEACHING PERSONNEL OF PRIVATE SECONDARY AND VOCATIONAL SCHOOLS, ACCORDING TO EDUCATION ATTAINMENTYEARS: 1963-64 TO 1967

| School Year | T O T A L | | | W I T H U N I V E R S I T Y D E G R E E | | | | | | W I T H O U T U N I V E R S I T Y D E G R E E | | | |
|----------------|-----------|------|--------|---|-----|-----|-------------|-----|----|---|------|------|--------|
| | Total | Male | Female | O F P R O F E S S O R | | | O T H E R S | | | Total | % | Male | Female |
| 1963-64 | 869 | 409 | 460 | 212 | 107 | 105 | 36 | 19 | 17 | 621 | 71.5 | 283 | 338 |
| 1964-65 | 1,086 | 515 | 571 | 285 | 144 | 141 | 55 | 33 | 22 | 746 | 68.7 | 338 | 408 |
| 1965 | 1,168 | 574 | 594 | 192 | 86 | 106 | 37 | 24 | 13 | 939 | 80.4 | 464 | 475 |
| 1966 | 1,201 | 602 | 599 | 451 | 222 | 229 | 164 | 119 | 45 | 586 | 48.8 | 261 | 325 |
| 1967 | 1,270 | 618 | 652 | 495 | 246 | 249 | 189 | 116 | 73 | 586 | 46.1 | 256 | 330 |

TABLE 23

ANNEX VI

BASIC SALARY SCALE FOR TEACHING PERSONNEL
OF OFFICIAL PRIMARY, SECONDARY AND
VOCATIONAL SCHOOLS ACCORDING TO
PROFESSIONAL CLASSIFICATION
YEARS: 1964-1969

| PROFESSIONAL CLASSIFICATION | 1969 | 1968 | 1967 | 1966 | 1965 | 1964 |
|--|--------|--------|--------|--------|--------|--------|
| Primary School Teachers with Professor of Pedagogy Title | 225.00 | 225.00 | 225.00 | 225.00 | 200.00 | 200.00 |
| Teachers with University Degree | 175.00 | 175.00 | 175.00 | 175.00 | 150.00 | 150.00 |
| Teachers for Frontier | 175.00 | 175.00 | 175.00 | 175.00 | 150.00 | 150.00 |
| Primary School Teachers - Class I | 135.00 | 135.00 | 135.00 | 135.00 | 115.00 | 115.00 |
| Primary School Teachers - Class II (Special) | 130.00 | 130.00 | 130.00 | 130.00 | 110.00 | 110.00 |
| Primary School Teachers - Class III (Without Title) | 125.00 | 125.00 | 125.00 | 125.00 | 105.00 | 105.00 |
| Professor with University Degree of Professor - Class I | 275.00 | 275.00 | 275.00 | 275.00 | 250.00 | 250.00 |
| Professor with University Degree - Class II | 250.00 | 250.00 | 250.00 | 250.00 | 225.00 | 225.00 |
| Professor without University Degree - Class III | 200.00 | 200.00 | 200.00 | 200.00 | 175.00 | 175.00 |
| Vocational Professor - Class I | 300.00 | 300.00 | 300.00 | 300.00 | 275.00 | 275.00 |
| Vocational Professor - Class II | 275.00 | 275.00 | 275.00 | 275.00 | 250.00 | 250.00 |
| Vocational Professor - Class III | 250.00 | 250.00 | 250.00 | 250.00 | 225.00 | 225.00 |
| Vocational Professor - Class IV | 200.00 | 200.00 | 200.00 | 200.00 | 175.00 | 175.00 |
| Vocational Professor - Class V | 175.00 | 175.00 | 175.00 | 175.00 | 150.00 | 150.00 |

X Every two years teaching personnel receive an automatic salary increase. The graduated teachers receive a \$5.00 increase. The professors receive a \$10.00 increase.

TABLE 24

Annex VI
Page 25 of 28OFFICIAL PRIMARY SCHOOLS ACCORDING TO THE NUMBER OF
WORK SESSIONS, BY AREA OR PROVINCE

1967

| | T O T A L | | | U R B A N | | | R U R A L | | |
|----------------|---------------|-----|--------|---------------|-----|--------|---------------|-----|--------|
| | Work Sessions | | | Work Sessions | | | Work Sessions | | |
| | Total | One | Double | Total | One | Double | Total | One | Double |
| Republic | 1,552 | 795 | 757 | 93 | 61 | 32 | 1,468 | 737 | 731 |
| Bocas del Toro | 46 | 17 | 29 | 2 | 1 | 1 | 46 | 17 | 29 |
| Coclé | 185 | 142 | 43 | 7 | | 7 | 178 | 142 | 36 |
| Colón | 103 | 31 | 72 | 11 | 9 | 2 | 96 | 22 | 74 |
| Chiriquí | 300 | 185 | 115 | 10 | 4 | 6 | 292 | 182 | 110 |
| Darién | 33 | | 33 | | | | 33 | 1 | 32 |
| Herrera | 130 | 2 | 128 | 3 | | 3 | 127 | 2 | 125 |
| Los Santos | 168 | 1 | 167 | 2 | | 2 | 166 | 1 | 165 |
| Panamá | 275 | 192 | 83 | 56 | 46 | 10 | 219 | 146 | 73 |
| Veraguas | 312 | 225 | 87 | 2 | 1 | 1 | 310 | 224 | 86 |

TABLE 25

NUMBER OF BUILDINGS, CLASSROOMS AND RENTAL EXPENSES
OFFICIAL PRIMARY SCHOOLS

1967

| | T O T A L | | R E N T E D | | Annual Rental |
|----------------|-----------|------------|-------------|------------|------------------|
| | Buildings | Classrooms | Buildings | Classrooms | |
| Republic | 2,248 | 6,862 | 858 | 1,339 | \$173,284.00 |
| Bocas del Toro | 55 | 135 | 5 | 11 | 7,524.00 |
| Coclé | 231 | 737 | 34 | 49 | 11,100.00 |
| Colón | 149 | 604 | 43 | 106 | 15,960.00 |
| Chiriquí | 448 | 1,218 | 134 | 227 | 29,000.00 |
| Darién | 80 | 206 | 45 | 66 | 6,000.00 |
| Herrera | 195 | 425 | 107 | 133 | 20,000.00 |
| Los Santos | 292 | 595 | 190 | 276 | 35,700.00 |
| Panamá | 345 | 2,075 | 83 | 155 | 25,000.00 |
| Veraguas | 453 | 867 | 217 | 316 | 23,000.00 |

Table 26

NUMBER OF BUILDINGS, CLASSROOMS AND EXPENSES IN CONCEPT OF RENT
OFFICIAL SECONDARY AND VOCATIONAL SCHOOLS

| | <u>1 9 6 7</u> | | | | |
|----------------|------------------|-------------------|--------------------|-------------------|------------------------|
| | <u>T o t a l</u> | | <u>R e n t e d</u> | | <u>Annual Rent</u> |
| | <u>Buildings</u> | <u>Classrooms</u> | <u>Buildings</u> | <u>Classrooms</u> | |
| Republica | 45 | 1,203 | 7 | 69 | 31,440 |
| Bocas del Toro | 1 | 14 | | | |
| Coclé | 4 | 63 | 1 | 3 | 420.00 |
| Colón | 4 | 132 | 1 | 25 | 15,700.00 |
| Chiriquí | 10 | 189 | 2 | 10 | 1,440.00 |
| Darién | 1 | 8 | | | |
| Herrera | 2 | 56 | | | |
| Los Santos | 3 | 49 | | | |
| Panama | 17 | 577 | 2 | 22 | 12,680 |
| Veraguas | 3 | 115 | 1 | 9 | 1,200 |

Table 27

NUMBER OF PRIMARY OFFICIAL SCHOOLS
FINISHED AND UNFINISHED BY AREAS

1 9 6 7

| | <u>F I n i s h e d</u> | | | | <u>U n f i n i s h e d</u> | | |
|----------------|------------------------|--------------|--------------|--------------|----------------------------|--------------|--------------|
| | <u>Total</u> | <u>Total</u> | <u>Urban</u> | <u>Rural</u> | <u>Total</u> | <u>Urban</u> | <u>Rural</u> |
| República | 1,552 | 937 | 91 | 846 | 615 | 2 | 613 |
| Bocas del Toro | 46 | 27 | 2 | 25 | 19 | | 19 |
| Coclé | 185 | 112 | 7 | 105 | 73 | | 73 |
| Colón | 103 | 83 | 11 | 72 | 20 | | 20 |
| Chiriquí | 300 | 133 | 10 | 123 | 167 | | 167 |
| Darién | 33 | 22 | 22 | 22 | 11 | | 11 |
| Herrera | 130 | 65 | 3 | 62 | 65 | | 65 |
| Los Santos | 168 | 113 | 2 | 111 | 55 | | 55 |
| Panamá | 275 | 222 | 54 | 168 | 53 | | 51 |
| Veraguas | 312 | 160 | 2 | 158 | 152 | | 152 |

TABLE I

ANNEX VII

EDUCATION BUDGET, UNIVERSITY OF PANAMA AND IFARHU, COMPARED WITH THE NATIONAL BUDGET
AND WITH THE NATIONAL GROSS PRODUCT. PERCENTAGE OF THE TOTAL BUDGET AND OF THE
NATIONAL GROSS PRODUCT ASSIGNED TO THE BUDGET OF EACH INSTITUTION
YEARS: 1963 - 1968 (1)

| YEARS | NATIONAL BUDGET | G. N. P. | B U D G E T A N D P E R C E N T A G E O F | | | | | | | | |
|-------|--------------------|-------------|--|----------------------|------------------|-------------------------|----------------------|------------------|-----------|----------------------|------------------|
| | | | MINISTRY OF EDUCATION | % OF TOTAL BUDGET | % OF G. N. P. | UNIVERSITY OF PANAMA | % OF TOTAL BUDGET | % OF G. N. P. | IFARHU | % OF TOTAL BUDGET | % OF G. N. P. |
| 1968 | 130,036,700 | 765,900,000 | 29,127,169 | 22.4 | 3.8 | 5,191,393 | 4.0 | 0.68 | 2,655,700 | 2.0 | 0.34 |
| 1967 | 114,861,300 | 727,300,000 | 26,609,765 | 23.2 | 3.6 | 3,054,447 | 2.6 | 0.42 | 2,022,700 | 1.8 | 0.28 |
| 1966 | 97,886,900 | 679,000,000 | 23,855,466 | 24.4 | 3.5 | 2,636,357 | 2.7 | 0.39 | 1,302,210 | 1.3 | 0.19 |
| 1965 | 86,557,700 | 621,400,000 | 21,226,770 | 24.5 | 3.4 | 2,350,470 | 2.7 | 0.38 | 200,000 | 0.2 | 0.03 |
| 1964 | 80,843,700 | 568,800,000 | 20,551,023 | 25.4 | 3.6 | 2,161,906 | 2.7 | 0.38 | - | - | - |
| 1963 | 76,775,400 | 541,700,000 | 19,187,127 | 25.0 | 3.5 | 1,613,660 | 2.1 | 0.30 | - | - | - |

(1) Does not include the National School of Agriculture which is under the Ministry of Agriculture and Livestock.

SOURCE: National Revenue and Expense Budget for the years 1963 to 1968, and "Panama en Cifras", annual publication of the Office of Statistics and Census of the Office of the Controller General of the Republic.

TABLE 2

ANNEX VII

DISTRIBUTION OF BUDGET ITEMS OF THE MINISTRY OF EDUCATIONYEARS 1963 TO 1968

| Years | Total | Adminis- tration | Elementary Education | Secondary Education | Literacy & Adult Education | Special Education | Phys. Educ. & Sports | Cultural Education | Scholar- ships(2) | Super- numerary & Retired | Printing & Publ. at Nat. Education Materials | Others (3) | (4) Private Education |
|-------|------------|---------------------|-------------------------|------------------------|----------------------------------|----------------------|----------------------------|-----------------------|----------------------|------------------------------------|--|------------------------|-----------------------------|
| 1968 | 29,127,169 | 831,781 | 15,421,363 | 7,551,991 | 60,055 | 160,470 | 135,880 | 532,885 | - | 2,180,142 | 334,200 | 1,859,890 | 58,512 |
| 1967 | 26,609,765 | 713,331 | 14,886,930 | 7,014,578 | 60,000 | 144,270 | 104,460 | 491,255 | - | 2,127,742 | 341,480 | 680,647 | 45,072 |
| 1966 | 23,855,466 | 565,519 | 12,661,942 | 5,672,501 | 36,190 | 144,270 | 92,270 | 416,184 | - | 1,937,742 | 319,060 | 2,019,733 ⁵ | - |
| 1965 | 21,226,770 | 464,370 | 11,688,255 | 5,452,062 | 34,330 | 97,400 | 68,600 | 339,039 | 693,935 | 1,887,742 | 274,270 | 236,767 | - |
| 1964 | 20,551,023 | 429,550 | 11,209,967 | 5,163,675 | 35,280 | 87,400 | 81,640 | 342,944 | 797,165 | 1,883,332 | 285,530 | 235,540 | - |
| 1963 | 19,187,127 | 351,513 | 10,647,704 | 4,681,095 | 27,270 | 184,400 | 72,480 | 296,960 | 688,725 | 1,782,320 | 273,790 | 180,869 | - |

- (1) Budget items contemplated in the Elementary Education Program and transferred to the Panamanian Institute of Special Education (Instituto Panameño de Habilidadación Especial (IPHE)).
- (2) The scholarship items were transferred to the Institute for the Development and utilization of Human Resources (IFARHU).
- (3) Includes the social and economic subsidies, current external transfers and the investments.
- (4) The budget item of the National Office of the Director of Private Education was previously included in the Administration Program, starting from the year 1957 it constitutes a Budgetary Program.
- (5) Includes the global line item designated for salary increases authorized by Law, which was not itemized in the Budget.

A COMPARISON OF ANNUAL BUDGET OF THE VARIOUS MINISTRIES

| <u>Ministries</u> | <u>1962</u> | <u>1963</u> | <u>1964</u> | <u>1965</u> | <u>1966</u> |
|----------------------|-------------|-------------|-------------|-------------|-------------|
| Education | 17,516,100 | 19,507,400 | 20,719,600 | 21,376,900 | 24,729,500 |
| Public Health | 12,082,200 | 12,745,100 | 12,492,500 | 13,085,600 | 14,799,000 |
| Government & Justice | 8,476,300 | 9,486,000 | 10,313,500 | 10,735,600 | 12,058,900 |
| Public Works | 6,764,800 | 7,881,900 | 7,218,800 | 8,568,500 | 9,418,100 |
| Treasury | 2,012,500 | 2,147,100 | 2,161,900 | 2,240,800 | 2,742,500 |
| Agriculture | 1,911,240 | 2,257,200 | 2,757,100 | 3,050,700 | 3,950,300 |
| Foreign Relations | 1,387,400 | 1,072,500 | 1,329,300 | 1,695,800 | 2,201,000 |

MINISTRY OF EDUCATION REVENUES

| <u>Year</u> | <u>Municipal Education Board</u> | <u>Secondary School Registration Fees</u> | <u>Compensation Fund</u> |
|-----------------------|--|--|---|
| 1963 | 696,425.20 | 136,660 | 15,000 |
| 1964 | 749,028.60 | 149,405 | 16,000 |
| 1965 | 831,466.60 | 138,240 | 17,000 |
| 1966 | 933,257.20 | 174,370 | 18,000 |
| 1967 | 1, 103,208.60 | 185,865 | 19,000 |
| 1968 | 1, 182,975.00 | 210,735 | 20,000 |
| T o t a l | 5, 496,361.20 | 9,952.75 | 105,000 |
| <u>S o u r c e</u> | 20% of the Municipalities Budget | \$5.00 annual fee paid by parents for the registration of each child in the secondary schools. | Fee paid to register Diplomas \$15.00-Sec. Education \$25.00-Higher Education |
| <u>Administration</u> | The Provincial Education Inspector's Office and the Municipal Education Board composed of five Members | The Director's Office of the school will manage it as follows: 75% for the develop- ment of Libraries and Laboratories. 25% for the Student Welfare Fund. | Subsidies to members of the Personnel and Students. |

PER-PUPIL COSTS, BY PROVINCE

Primary Education, 1966 and 1968

| Province | 1 9 6 6 | | | 1 9 6 8 | | | % Increase |
|----------------|----------|-------|-------|----------|-------|-------|------------|
| | Salaries | Other | Total | Salaries | Other | Total | |
| Bocas del Toro | 50.28 | 2.48 | 52.76 | 54.91 | 3.53 | 58.44 | 10.7 |
| Coclé | 55.95 | 1.02 | 56.97 | 60.69 | 1.48 | 62.17 | 9.1 |
| Colón | 51.01 | 1.49 | 52.50 | 66.17 | 1.83 | 68.00 | 29.5 |
| Chiriquí | 56.46 | 1.34 | 57.80 | 59.05 | 1.76 | 60.81 | 5.2 |
| Darién | 66.30 | 3.73 | 70.03 | 66.40 | 6.72 | 73.12 | 4.4 |
| Herrera | 63.12 | 2.42 | 65.54 | 72.27 | 3.33 | 75.60 | 15.3 |
| Los Santos | 72.17 | 2.79 | 74.96 | 84.43 | 4.62 | 89.05 | 18.8 |
| Panamá | 68.98 | 0.52 | 69.50 | 76.86 | 0.62 | 77.48 | 11.5 |
| Veraguas | 59.93 | 1.61 | 61.54 | 67.59 | 2.18 | 69.77 | 13.4 |
| San Blas | -- | -- | -- | 74.06 | 10.16 | 84.22 | -- |

TABLE 6

ANNEX VII

DISTRIBUTION OF BUDGET ITEMS OF THE MINISTRY OF EDUCATION FOR PERSONAL SERVICES,
RENT, MATERIALS AND SUPPLIES, GENERAL CAPITAL EXPENSES
AND OTHER OPERATING EXPENSES: YEAR 1963 to 1968 (1)

| DESCRIPTION | 1968 | 1967 | 1966 | 1965 | 1964 | 1963 |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Total | <u>29,127,169</u> | <u>26,609,765</u> | <u>23,855,446</u> | <u>21,226,770</u> | <u>20,517,383</u> | <u>18,990,127</u> |
| Personal Services | <u>26,205,884</u> | <u>24,807,572</u> | <u>22,323,726</u> | <u>19,568,468</u> | <u>18,683,239</u> | <u>17,494,282</u> |
| Fixed Salaries | 21,058,980 | 19,872,495 | 17,909,590 | 17,513,936 (2) | 16,637,543 (2) | 15,570,080 (2) |
| Salaries of Transitory Personnel | 36,220 | 36,220 | 37,300 | 13,930 | 9,700 | 8,000 |
| Extra Wages | 2,763,599 | 2,583,062 | 2,292,844 | - | - | - |
| Fees | 300 | 300 | - | 600 | 600 | 600 |
| Per Diem | 50,813 | 63,613 | 57,050 | 57,295 | 59,664 | 62,089 |
| Representation | 8,400 | 8,400 | 6,600 | 6,600 | 5,300 | 4,800 |
| Overtime | 4,360 | 4,760 | - | 7,100 | 7,100 | 6,393 |
| Other Personal Services | 1,750 | 900 | 600 | - | - | - |
| Accepted Credits for Personal Services | 1,320 | 10,080 | - | - | - | - |
| Annuities and Retirement pensions | 2,180,142 | 2,127,742 | 1,937,742 | 1,887,742 | 1,881,332 | 1,782,320 |
| Maternity Subsidies | 100,000 | 100,000 | 82,000 | 81,265 | 82,000 | 60,000 |
| Rental | <u>278,560</u> | <u>276,800</u> | <u>275,334</u> | <u>276,054</u> | <u>260,654</u> | <u>254,654</u> |
| Materials and Supplies | <u>390,475</u> | <u>405,259</u> | <u>240,085</u> | <u>163,195</u> | <u>162,890</u> | <u>148,089</u> |
| General Capital Expenses | <u>1,494,150</u> | <u>527,010</u> | <u>517,579</u> | <u>82,245</u> | <u>149,925</u> | <u>90,713</u> |
| General Machinery and Equipment | 162,650 | 167,010 | 127,273 | 82,245 | 149,925 | 90,713 |
| Investments | 1,331,500 | 350,000 | 385,606 | - | - | - |
| Other Operating Expenses (3) | 758,100 | 593,124 | 503,442 | 1,136,808 (4) | 1,260,675 (4) | 1,202,389 (4) |

(1) The budgetary line items for the years 1963, 1964 and 1965 have been adjusted in accordance with the Budget for Programs introduced in the year 1966.

(2) The items in connection with extra wages are included in the line item of fixed salaries for the years 1963, 1964 and 1965.

(3) Includes basic services; publicity, printing and bookbinding; commercial, financial and insurance services; general maintenance and repairs; other not personal services, clothing, travelling expenses and transportation; fuel and lubricants; social and economic subsidies and current foreign transfers.

(4) In the years 1963, 1964 and 1965 was included in the line item of scholarships, which later transferred to IFARHU.

SOURCE: National Revenue and Expense Budget

PER-PUPIL COST BY PROVINCES

Secondary Education, 1968

| <u>PROVINCE</u> | <u>SALARIES FOR INSTRUCTION</u> | <u>TOTAL</u> |
|-----------------|---------------------------------|--------------|
| Bocas del Toro | 194.10 | B/.201.34 |
| Coclé | 220.17 | 226.47 |
| Colón | 168.13 | 174.30 |
| Chiriquí | 170.00 | 173.66 |
| Darién | 353.50 | 379.31 |
| Herrera | 170.47 | 184.14 |
| Los Santos | 212.77 | 255.55 |
| Panamá | 180.70 | 182.35 |
| Veraguas | 219.64 | 224.74 |

v

Table 8

UNIT COST PER STUDENT¹

| <u>College</u> | <u>Total</u> | <u>Variable Cost</u> | <u>Fixed Cost</u> |
|--------------------------------------|--------------|----------------------|-------------------|
| Average | \$ 355.02 | \$ 291.64 | \$ 63.38 |
| Public Adm. and Commerce | 214.61 | 151.23 | 63.38 |
| Architecture | 359.82 | 296.44 | 63.38 |
| Natural Science & Pharmacy | 325.29 | 261.91 | 63.38 |
| Law and Political Science | 399.56 | 336.18 | 63.38 |
| Philosophy, Letters and Education | 263.12 | 199.74 | 73.38 |
| Engineering | 614.79 | 551.41 | 63.38 |
| Medicine | 2,305.52 | 2,242.14 | 63.38 |
| Agronomy | 1,278.46 | 1,205.08 | 63.38 |

Data compiled for 1965.

ANNEX VIII

Table I

COST ESTIMATES - AID LOAN REQUEST (1971-74)
(\$000)

| OBJECTIVES AND ACTIVITIES | TOTALS | | | CAPITAL | | Technical Assistance | TRAINING | | | | New Staff |
|---|--------|-------|-------|---------|-------|----------------------|-------------------|-------------------|-----------------------|-----------------------|-----------|
| | Total | GOP | AID | GOP | AID | AID | In-Country GOP | In-Country AID | Out-of-Country GOP | Out-of-Country AID | GOP |
| 1. IMPROVE QUALITY OF EDUCATION | 1,853 | 574 | 1,279 | 246 | 699 | 330 | 250 | 145 | 54 | 105 | 24 |
| a. Curriculum Development | 237 | 71 | 166 | | | 120 | 50 | 25 | 11 | 21 | 10 |
| b. Teacher Education | 451 | 166 | 285 | | | 150 | 130 | 65 | 36 | 70 | |
| c. Teaching Materials - Audio- Visual Aids | 970 | 251 | 719 | 201 | 669 | | 50 | 50 | | | |
| d. Education Research and Technology | 195 | 86 | 109 | 45 | 30 | 60 | 20 | 5 | 7 | 14 | 14 |
| 2. IMPROVE ADMINISTRATION | 352 | 94 | 258 | 4 | 6 | 195 | 35 | 15 | 24 | 42 | 31 |
| a. Reorganization MOE - Develop Provincial Units | 185 | 62 | 123 | | | 90 | 15 | 5 | 16 | 28 | 31 |
| b. Planning and Evaluation | 102 | 17 | 85 | 4 | 6 | 60 | 5 | 5 | 8 | 14 | |
| c. Maintenance of Facilities | 65 | 15 | 50 | | | 45 | 15 | 5 | | | |
| 3. EXPANDING FACILITIES | 15,195 | 8,232 | 6,963 | 7,832 | 6,963 | | | | | | 400 |
| a. Provincial Units (8) | 902 | 451 | 451 | 451 | 451 | | | | | | |
| b. Superior Normal School | 1,132 | 596 | 536 | 536 | 536 | | | | | | 60 |
| c. Primary Classrooms (634) | 7,296 | 3,718 | 3,578 | 3,578 | 3,578 | | | | | | 140 |
| d. Secondary Classrooms (175) | 3,395 | 1,797 | 1,598 | 1,597 | 1,598 | | | | | | 200 |
| e. Furniture and Equipment | 900 | 100 | 800 | 100 | 800 | | | | | | |
| f. MOE Building Total Cost | 1,570 | 1,570 | | 1,570 | | | | | | | |
| TOTAL ALL ACTIVITIES | 17,400 | 8,900 | 8,500 | 8,082 | 7,668 | 525 | 285 | 160 | 78 | 147 | 455 |

Table 2

C A S H F L O W S T A T E M E N T O F M O E
(\$000)

| | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | T O T A L S | |
|---------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| General Budget | | | | | | | | | | | | |
| A. Allocation (1) | 21,227 | 23,855 | 26,610 | 29,127 | 33,519 | 37,770 | 42,378 | 47,548 | 53,328 | 59,781 | 375,143 | |
| 1. Personnel Services | 19,569 | 22,324 | 24,808 | 26,206 | 31,534 | 34,892 | 39,184 | 44,004 | 49,416 | 55,494 | 347,431 | |
| 2. Rent | 276 | 275 | 277 | 279 | 213 | 303 | 309 | 314 | 300 | 250 | 2,706 | |
| 3. Materials and Supplies | 163 | 240 | 405 | 390 | 339 | 1,006 | 1,129 | 1,267 | 1,421 | 1,595 | 7,955 | |
| 4. Capital Investments | 82 | 513 | 527 | 1,494 | 645 | 280 | 282 | 304 | 328 | 354 | 4,809 | |
| 5. Other Operational Expenditures (2) | 1,137 | 503 | 593 | 758 | 788 | 1,289 | 1,474 | 1,659 | 1,863 | 2,088 | 12,152 | |
| External Assistance | | | | | | | | | | | | |
| B. Plus GOP Investment | | | | | 211 | 1,955 | 8,417 | 11,259 | 7,070 | 2,500 | GOP | AGENCY |
| 1. IDB | | | | | | 1,144 | 2,780 | 2,216 | | | 2,742 | 3,398 |
| 2. AID | | | | | | | 4,656 | 8,343 | 4,400 | | 8,900 | 8,500 |
| 3. UNESCO/UNICEF | | | | | 211 | 211 | 200 | | | | 360 | 262 |
| 4. ICASE/UN Project | | | | | | 600 | 781 | 700 | 670 | 500 | 1,512 | 1,941 |
| 5. IBRD | | | | | | | | | 2,000 | 2,000 | 2,000 | 2,000 |
| TOTAL | 21,227 | 23,855 | 26,610 | 29,127 | 33,730 | 39,727 | 50,795 | 58,807 | 60,398 | 62,281 | 15,514 | 16,101 |

1. Figures for the Years 1965 through 1970 represent actual MOE Budget Appropriations. Figures for the years 1971 through 1974 are projections based on 12.2% annual increase.
2. Includes services for publications, publicity, commercial services, maintenance and general repairs, non-personal services such as travel expenses and transportation, fuel and lubricants; some social and economic subsidies, and monetary transfers to foreign countries.

SOURCE: Presupuesto de Rentas y Gastos de la Nación, Años 1965-70.
Dirección General de Educación, Ministerio de Educación.
Panama, May 1970.-

EDUCATION SECTOR LOAN
CASH FLOW PROJECTION
(\$000)

| 1. IMPROVE QUALITY OF EDUCATION | 1 9 7 1 | | | 1 9 7 2 | | | 1 9 7 3 | | | T O T A L S | | | % Of Total | |
|---|-------------|--------------|------------|--------------|--------------|--------------|-----------|------------|------------|-------------|-------------|-------------|---------------|-----------|
| | GOP | AID | TOTAL | GOP | AID | TOTAL | GOP | AID | TOTAL | GOP | AID | TOTAL | GOP | AID |
| Curriculum | | | | | | | | | | | | | | |
| Ia. Development | 10 | 100 | 110 | 36 | 53.5 | 89.5 | 25 | 12.5 | 37.5 | 71 | 166 | 237 | 30 | 70 |
| 1. Tech. Assist. | | 90 | 90 | | 30 | 30 | | | | | 120 | 120 | | 100 |
| 2. Training I.C. | | | | 25 | 12.5 | 37.5 | 25 | 12.5 | 37.5 | 50 | 25 | 75 | 75 | 25 |
| 3. Training O.C. | 5 | 10 | 15 | 6 | 11 | 17 | | | | 11 | 21 | 32 | 34 | 66 |
| 4. New Staff | 5 | | 5 | 5 | | 5 | | | | 10 | | 10 | 100 | |
| Teacher | | | | | | | | | | | | | | |
| Ib. Education | 35.5 | 90.5 | 126 | 87.5 | 144.5 | 232 | 43 | 50 | 93 | 166 | 285 | 451 | 37 | 63 |
| 1. Tech. Assist. | | 60 | 60 | | 75 | 75 | | 15 | 15 | | 150 | 150 | | 100 |
| 2. Training I.C. | 26.5 | 13.5 | 40 | 69.5 | 34.5 | 104 | 34 | 17 | 51 | 130 | 65 | 195 | 67 | 33 |
| 3. Training O.C. | 9 | 17 | 26 | 18 | 35 | 53 | 9 | 18 | 27 | 36 | 70 | 106 | 34 | 66 |
| Teaching | | | | | | | | | | | | | | |
| Ic. Materials | | | | 226 | 694 | 920 | 25 | 25 | 50 | 251 | 719 | 970 | 26 | 74 |
| 1. Training I.C. | | | | 25 | 25 | 50 | 25 | 25 | 50 | 50 | 50 | 100 | 50 | 50 |
| 2. Equipment | | | | 201 | 669 | 870 | | | | 201 | 669 | 870 | 23 | 77 |
| Ed. Research & Tech. Development | | | | | | | | | | | | | | |
| Iid. Technology | 30 | 41 | 71 | 53 | 55.5 | 108.5 | 3 | 12.5 | 15.5 | 86 | 109 | 195 | 44 | 56 |
| 1. Tech. Assist. | | 30 | 30 | | 17.5 | 17.5 | | 12.5 | 12.5 | | 60 | 60 | | 100 |
| 2. Training I.C. | 20 | 5 | 25 | | | | | | | 20 | 5 | 25 | 80 | 20 |
| 3. Training O.C. | 3 | 6 | 9 | 4 | 8 | 12 | | | | 7 | 14 | 21 | 33 | 67 |
| 4. Equipment | | | | 45 | 30 | 75 | | | | 45 | 30 | 75 | 60 | 40 |
| 5. New Staff | 7 | | 7 | 4 | | 4 | 3 | | 3 | 14 | | 14 | 100 | |
| Sub-Total (II) | 25.3 | 231.5 | 257 | 412.3 | 247.5 | 659.8 | 38 | 100 | 138 | 574 | 1279 | 1853 | 31 | 69 |

| EDUCATION SECTOR LOAN | | | | | | | | | | | | | | | | | |
|------------------------------|------|---------|--|-------|------|---------|--|-------|-----|---------|--|-------------|-----|-------|-------------------------|-----|-----|
| CASH FLOW PROJECTION | | | | | | | | | | | | | | | | | |
| 2. IMPROVE ADMINISTRATION | GOP | 1 9 7 1 | | TOTAL | GOP | 1 9 7 2 | | TOTAL | GOP | 1 9 7 3 | | T O T A L S | | | % Of Total AID | | |
| | | AID | | | | AID | | | | AID | | GOP | AID | TOTAL | | GOP | AID |
| a. Reorganization of MOE | 15 | 31 | | 46 | 25 | 47 | | 72 | 22 | 45 | | 67 | 62 | 123 | 185 | 34 | 66 |
| 1. Tech. Assist. | | 30 | | 30 | | 30 | | 30 | | 30 | | 30 | | 90 | 90 | | 100 |
| 2. Training I.C. | 4 | 1 | | 5 | 7 | 3 | | 10 | 4 | 1 | | 5 | 15 | 5 | 20 | 72 | 25 |
| 3. Training O.C. | | | | | 8 | 14 | | 22 | 8 | 14 | | 22 | 16 | 28 | 44 | 36 | 64 |
| 4. New Staff | 11 | | | 11 | 10 | | | 10 | 10 | | | 10 | 31 | | 31 | 100 | |
| Planning & Evaluation | 2.5 | 32.5 | | 35 | 11.5 | 16.5 | | 28 | 3 | 36 | | 39 | 17 | 85 | 102 | 16 | 84 |
| 1. Tech. Assist. | | 30 | | 30 | | | | | | 30 | | 30 | | 60 | 60 | | 100 |
| 2. Training I.C. | 2.5 | 2.5 | | 5 | 2.5 | 2.5 | | 5 | | | | | 5 | 5 | 10 | 50 | 50 |
| 3. Training O.C. | | | | | 5 | 6 | | 13 | 3 | 6 | | 9 | 8 | 14 | 22 | 36 | 64 |
| 4. Equipment | | | | | 4 | 6 | | 10 | | | | | 4 | 6 | 10 | 40 | 60 |
| Maintenance of Facilities | | 35 | | 35 | 15 | 15 | | 30 | | | | | 15 | 50 | 65 | 23 | 77 |
| 1. Tech. Assist. | | 35 | | 35 | | | | | | | | | | | | | |
| 2. Training I.C. | | | | | 15 | 5 | | 20 | | | | | 15 | 45 | 45 | 75 | 100 |
| | | | | | | | | | | | | | | 5 | 20 | | 25 |
| Sub-Total (2) | 17.5 | 98.5 | | 116 | 51.5 | 78.5 | | 130 | 25 | 81 | | 106 | 94 | 258 | 352 | 27 | 73 |

EDUCATION SECTOR LOAN
C A S H F L O W P R O J E C T I O N

| 3. EXPAND FACILITIES | 1 9 7 1 | | | 1 9 7 2 | | | 1 9 7 3 | | | T O T A L S | | | % OF TOTAL | |
|----------------------------|---------|-----|-------|---------|------|-------|---------|------|-------|-------------|------|-------|------------|-----|
| | GOP | AID | TOTAL | GOP | AID | TOTAL | GOP | AID | TOTAL | GOP | AID | TOTAL | GOP | AID |
| 3a. Provincial Units | 294 | 127 | 421 | 147 | 300 | 447 | 10 | 24 | 34 | 451 | 451 | 902 | 50 | 50 |
| 1. Land | 224 | | 224 | | | | | | | 224 | | 224 | 100 | |
| 2. Design Phase | 20 | 20 | 40 | 7 | | 7 | | | | 27 | 20 | 47 | 58 | 42 |
| 3. Constr. Phase | 50 | 107 | 157 | 140 | 300 | 440 | 10 | 24 | 34 | 200 | 431 | 631 | 32 | 68 |
| 3b. Superior Normal School | 216 | 126 | 342 | 280 | 360 | 640 | 40 | 50 | 90 | 536 | 536 | 1072 | 50 | 50 |
| 1. Land | 100 | | 100 | | | | | | | 100 | | 100 | 100 | |
| 2. Design Phase | 30 | 30 | 60 | | | | | | | 30 | 30 | 60 | 50 | 50 |
| 3. Constr. Phase | 86 | 96 | 182 | 280 | 360 | 640 | 40 | 50 | 90 | 406 | 506 | 912 | 44 | 56 |
| 3c. Primary Schools | 1228 | 448 | 1676 | 1365 | 1710 | 3075 | 985 | 1420 | 2405 | 3578 | 3578 | 7156 | 50 | 50 |
| 1. Land | 877 | | 877 | 125 | | 125 | | | | 1002 | | 1002 | 100 | |
| 2. Design Phase | 131 | 132 | 263 | 36 | 35 | 71 | | | | 167 | 167 | 334 | 50 | 50 |
| 3. Constr. Phase | 220 | 316 | 536 | 1204 | 1675 | 2879 | 985 | 1420 | 2405 | 2409 | 3411 | 5820 | 41 | 59 |
| 3d. Secondary Schools | 1108 | 489 | 1597 | 473 | 1072 | 1545 | 16 | 37 | 53 | 1597 | 1598 | 3195 | 50 | 50 |
| 1. Land | 860 | | 860 | | | | | | | 860 | | 860 | 100 | |
| 2. Design Phase | 69 | 70 | 139 | | | | | | | 69 | 70 | 139 | 50 | 50 |
| 3. Constr. Phase | 179 | 419 | 598 | 473 | 1072 | 1545 | 16 | 37 | 53 | 668 | 1528 | 2196 | 30 | 70 |
| 3e. Furniture & Equipment | | | | 40 | 260 | 300 | 60 | 540 | 600 | 100 | 800 | 900 | 11 | 89 |

EDUCATION SECTOR LOAN
CASH FLOW PROJECTION

| 3. EXPAND FACILITIES (Cont.) | 1 9 7 1 | | | 1 9 7 2 | | | 1 9 7 3 | | | T O T A L S | | | % OF TOTAL | |
|---------------------------------------|---------|------|-------|---------|------|-------|---------|------|-------|-------------|------|-------|------------|-----|
| | GOP | AID | TOTAL | GOP | AID | TOTAL | GOP | AID | TOTAL | GOP | AID | TOTAL | GOP | AID |
| 3f. MGE Building | 198 | | 198 | 686 | | 686 | 686 | | 686 | 1570 | | 1570 | | 100 |
| 1. Land | 110 | | 110 | | | | | | | 110 | | 110 | | 100 |
| 2. Design Phase | 88 | | 88 | | | | | | | 88 | | 88 | | 100 |
| 3. Constr. Phase | | | | 686 | | 686 | 686 | | 686 | 1372 | | 1372 | | 100 |
| 3g. New Staff | | | | 170 | | 170 | 230 | | 230 | 400 | | 400 | | 100 |
| 1. Superior Normal School | | | | | | | 60 | | 60 | 60 | | 60 | | 100 |
| 2. Primary Schools | | | | 70 | | 70 | 70 | | 70 | 140 | | 140 | | 100 |
| 3. Secondary Schools | | | | 100 | | 100 | 100 | | 100 | 200 | | 200 | | 100 |
| Sub-Total (3) | 3044 | 1190 | 4234 | 3161 | 3702 | 6863 | 2027 | 2071 | 4098 | 8232 | 6963 | 15195 | 54 | 46 |
| Grand Total | 3137 | 1520 | 4657 | 3615 | 4728 | 8343 | 2148 | 2252 | 4400 | 8900 | 8500 | 17400 | 51 | 46 |
| % of Total | 18 | 9 | 27 | 21 | 27 | 48 | 12 | 13 | 25 | 51 | 49 | 100 | | |
| % of Contribution | 35 | 18 | | 41 | 56 | | 24 | 26 | | 100 | 100 | | | |
| Accumulative % of Rate of Expenditure | 35 | 18 | | 76 | 74 | | 100 | 100 | | | | | | |

SEE OFFICIAL FILES - LA/DR FOR ANNEX IX
(Engineering Drawings)

DRAFT
LOAN AUTHORIZATION

Provided from: Alliance for Progress Funds

PANAMA: Education Sector

Pursuant to the authority vested in the Deputy U.S. Coordinator, Alliance for Progress, by the Foreign Assistance Act of 1961, as amended, and the delegations of authority issued thereunder, I hereby authorize the establishment of a loan pursuant to Part 1, Chapter 2, Title VI, Alliance for Progress, of said Act, to the Government of the Republic of Panama (Borrower) of not to exceed eight million five hundred thousand dollars (\$8,500,000) for United States dollar and local costs of goods and services to assist the Borrower in financing the implementation of the first phase of the National Plan for Education by improving the quality of education, improving the administration of the Ministry of Education and expansion of facilities for education, this loan to be subject to the following terms and conditions:

1. Interest and Terms of Repayment

Borrower shall repay the loan to the Agency for International Development (A.I.D.) in United States Dollars within forty (40) years from the first disbursement under the loan, including a grace period of not to exceed ten (10) years. Borrower shall pay to A.I.D. in United States dollars on the disbursed balance of the loan interest of two percent (2%) per annum during the grace period and three percent (3%) per annum thereafter.

2. Other Terms and Conditions

- (a) Except for marine insurance, goods and services financed under the loan shall have their source and origin in the United States or any independent country of the Western Hemisphere south of the United States except Cuba. Marine insurance financed under the loan shall have its source and origin in the United States or any independent country of the Western Hemisphere south of the United States except Cuba, provided, however, that such insurance may be financed under the loan only if it is obtained on a competitive basis and any claims thereunder are payable in convertible currencies.

- (b) United States dollars utilized under the loan to finance local currency costs shall be made available pursuant to procedures satisfactory to A.I.D.
- (c) Prior to the issuance of any commitment document or disbursement under the loan, the Borrower shall submit evidence satisfactory to A.I.D. of a time-phased implementation plan covering each component of the project, showing interrelationship with and priority relative to other components.
- (d) Prior to the issuance of any commitment document or disbursement under the loan for construction services or commodities for a particular construction subproject, the Borrower shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:
 - i) Plans and specifications, bid documents, cost estimates, and time schedules for carrying out the subproject;
 - ii) An executed contract for construction or other services for the subproject acceptable to A.I.D. with a firm acceptable to A.I.D.;
 - iii) Evidence that the Borrower has obtained all real property rights, including easements and rights of way, required for the construction and operation of the subproject.
 - iv) A maintenance plan satisfactory to A.I.D. and evidence of sufficient budgetary support to accomplish adequate maintenance practices.
- (e) The Borrower shall agree to make timely and adequate appropriation of funds in conformance with the Implementation plan referred to above.
- (f) The continuation of the project will be subject to annual joint review by Borrower and A.I.D. or such interim reviews as may be agreeable to both parties to determine if there

has been adequate progress in achieving the project goals.

- (g) The loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

Deputy U.S. Coordinator

Date