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DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
ALLIANCE FOR PROGRESS
WASHINGTON, D. C. 20523

CAPITAL ASSISTANCE PAPER

COSTA RICA - CADASTRAL SURVEY

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AID-LA/P-41



DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT

Washington 25, D. C.

UNITED STATES COORDINATOR
ALLIANCE FOR PROGRESS

LIMITED OFFICIAL USE

AID-LA/P-41
April 20, 1964

MEMORANDUM FOR THE ADMINISTRATOR

SUBJECT: COSTA RICA - Cadastral Survey

The attached Capital Assistance Paper which recommends authorization of a loan of not to exceed \$1,600,000 to the Government of Costa Rica to accelerate the GOCR's tax mapping, tax appraisal and topographic mapping projects in order to increase tax revenues and facilitate land reform, property identification and national planning activities is under consideration for authorization by this Bureau.

Reuben Sternfeld
Acting Deputy U.S. Coordinator

Attachments:

Summary and Recommendations
Project Analysis
Annexes I - III

COSTA RICA - CADASTRAL SURVEY

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COSTA RICA - Cadastral Survey

SUMMARY AND RECOMMENDATIONS

1. **APPLICANT:** Government of Costa Rica (GOCR). Responsibility for the administration of the loan proceeds and execution of the project will be vested in the National Planning Office.
2. **AMOUNT:** Not to exceed \$1,600,000.
3. **TOTAL COST OF ACTIVITY:** \$2,571,000.

AID Loan

Dollar Costs	\$ 679,000-44%
Colon Costs (\$ equivalent)	<u>879,000-56%</u>
Total Loan	\$1,558,000-100%

GOCR Contribution (\$ equivalent)	\$ 773,000 a/
LAGS Contribution	<u>240,000</u>
Total Project	\$2,571,000

a/ Includes regular and augmented staff salaries of GOCR totalling \$729,000.

4. **DESCRIPTION OF ACTIVITY:** The proposed project will assist the GOCR to improve the administration of its property taxes as well as to assist in its program of land reform. It includes \$1,106,000 for tax mapping and tax appraisal purposes, and \$452,000 for topographic mapping. The tax mapping and property appraisal portions of the project will be completed within a three-year period by a special task force made up of regular and special staff personnel of the GOCR Direct Tax Appraisal division, with the assistance, supervision, and training of U.S. consultants. It will provide tax maps for an area which encompasses an estimated 90% of the taxable value of the entire country. The program is

based on two studies performed by J.L. Jacobs and Company of Chicago and Public Administration Service of Chicago, which evaluated existing aerial photography and feasibility of the project.

The topographic mapping portion of the program will be completed in 4 to 5 years by an augmented staff of the Instituto Geografico (a division of the Ministry of Transportation), and will be the culmination of a basic program which has been going on for 18 years in Costa Rica. These maps have many uses - public works planning, irrigation, military, etc. They are necessary for the development of both short-range and long-range land use plans.

5. **PURPOSE OF ACTIVITY:** To accelerate the GOCR's tax mapping, tax appraisal and topographic mapping projects in order to increase tax revenues and facilitate land reform, property identification and national planning activities.
6. **BACKGROUND OF ACTIVITY:** A number of studies of the Costa Rican tax system have been made over the past ten years, all of which have indicated that the real property tax produces only a small portion of its potential return. Since 1960 a systematic effort has been made to remedy the situation and this effort has resulted in mapping and evaluating approximately 11% of all properties. At the present rate of progress it is believed that the task would be completed in approximately 12 more years. The aim of this project is to speed up the remedial measures already undertaken and achieve within three years what otherwise would take twelve more years.
7. **EX-IM BANK INTEREST:** Ex-Im Bank informed A.I.D. in writing on October 31, 1963, that it was not interested in this project because of the substantial local cost component.
8. **MISSION VIEWS:** Since this project will help the GOCR to improve its fiscal situation the Country Team strongly urges immediate action and approval.
9. **STATUTORY CRITERIA:** All statutory criteria have been met (See Annex I).
10. **ISSUES:** Proposal calls for A.I.D. financing of approximately 50 percent of the local currency requirements of this project over the three-year period, including certain administrative personnel and support.

costs. However, in view of the present difficult financial position of the GOCR (see Section V A) and considering the major objective of this proposal designed to increase tax revenues, the Committee recommends approval for such financing. In this connection, it is intended to utilize appropriate procedures to generate required local currency based upon imports from the United States.

11. **RECOMMENDATIONS:** Authorization of a loan to the GOCR Ministry of Economy and Finance for an amount not to exceed \$1,600,000 subject to terms and conditions as described below:

A. Terms

1. Term of Loan: 40 years
2. Interest: $3\frac{1}{4}\%$ per annum for first 10 years, 2% thereafter
3. Grace Period: 10 years
4. Repayment: U.S. Dollars

B. Conditions

1. A.I.D. has agreed in principle that the Central American Bank for Economic Integration (CABEI) will act as regional technical adviser to AID loan projects in the region, serving as a regional depository of experience and technical information for such loans. In remuneration for this service, the GOCR will pay CABEI an initial credit fee of $\frac{3}{4}$ of one percent on the entire amount of the loan, $1\frac{1}{2}$ percent on the disbursed balance, during the first three years after first disbursement, and $\frac{1}{2}$ of one percent on the disbursed balance during the remaining life of the loan. To the extent that these fee payments exceed the costs to CABEI of providing technical advice, CABEI will deposit that difference into the Fund for Central American Integration - the uses of which will be determined at a later date.
2. All equipment, materials and services (except shipping, which shall be procured from the United States, and marine insurance) financed under the loan shall be procured from the United States of America or member countries of the Central American Common Market.

3. United States dollars utilized under the loan to finance local costs shall be made available to the Borrower or its designee through appropriate procedures and such dollars shall be used only for procurement in the United States (excepting marine insurance).
4. A qualified United States consulting firm shall be retained to develop appraisal standards, train local staff, certify progress payments, supervise the preparation of tax maps, and have general technical direction of the tax project.
5. Borrower shall covenant to make available sufficient resources for the timely completion of the Project, including such resources as may be necessary to meet possible increases in the salaries of personnel employed on the Project.

Capital Activity Committee:

Loan Officers:	Frederick M. Karsten/ ^{FK} Stanly Baranson
Counsel:	Peter Hornbostel ^{PW}
Engineer:	Calvin Schofield ^{Cal}
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Technical Adviser:	Cecil Morgan, ROCAP Tax Mapping Adviser
US AID/CR Program Officer:	Joseph Pincus

Drafted by: ^{FK}FMKarsten/CMorgan/JPincus

SECTION I - HISTORY AND BACKGROUND OF THE PROJECT

Since 1954 a number of studies of the Costa Rican tax system have been made under AID/ICA and UN auspices. These studies indicate that the present real property tax, conservatively, produces less than half its revenue potential. Also, in terms of the economic development of the country, this tax is one whose role can be expanded with minimum ill effect on agricultural and industrial investment. It could, in fact, have a positive effect by making investment in unproductive real property less attractive to Costa Rican capital. Positive benefits can also be expected in encouragement of better utilization of idle or under-used lands.

The real property tax system in Costa Rica has a number of defects which have hampered good administration and kept returns below what they should be. The provisions for determination of values on owner's declarations and the dependence on owner's registration of land undermine the system for equitably collecting taxes on real property. Some owners have properly registered their land, but many have not. In some 75-80% of the cases, the assessed values are based upon the owner's declarations rather than on the application of objective valuation standards. For these reasons, property and owner identification is the necessary basic step to any improvement in the tax law or its administration.

The above weaknesses were recognized by GOCR as a result of studies made by outside consultants and also by virtue of the fact that certain members of the present administrative staff who have received training in the United States and Puerto Rico, where modern property accounting and tax appraisal methods are in use, recognized the deficiencies. Since early 1960 a systematic effort to remedy these deficiencies has been made, with the result that an estimated 11% of the properties have been mapped and scientifically evaluated since that date. At the present rate of progress, it is believed that the task would be completed in approximately 12 more years. Meanwhile, however, the government is losing potential revenue every day. Also, the present system, whereby the few taxpayers whose properties have been scientifically appraised are paying on a much higher base than the majority of property owners, produces serious inequities and much taxpayer resentment. The aim of this project is to speed up the

remedial measures already undertaken and to achieve within a three-year period 90% of the results that would otherwise require at least 12 more years to accomplish.

The present Administration has evidenced considerable interest in this accelerated program even before it took office in May, 1962; since that time its interest has increased, as concrete plans for accomplishing the objective have been developed. It is agreed that the present plan offers a practical and economical method for achieving the desired end.

While the cadastral survey will substantially increase GOCR property tax collections it is clear that parallel steps in strengthening the tax administration and tax legislation are also needed in order that maximum benefits may be derived from the tax mapping and tax appraisal program. The GOCR understands that parallel steps are necessary and has indicated a willingness to undertake them. In a letter to Ambassador Telles on December 13, 1963, the President of Costa Rica formally requested Internal Revenue Service assistance in tax audit, administration and control. Pursuant to this request, an IRS team arrived in Costa Rica on March 9, 1964, to begin a study. Scope of the study, as described in the P10/T, is as follows:

- (a) "Survey existing tax audit, administration, and control procedures, and recommend changes that will result in increased revenues under existing laws".
- (b) "Establish such training programs in the foregoing fields" and;
- (c) "Establish a basis for longer-term assistance to the GOCR in these fields in FY 1965, if required".

Additional U.S. tax assistance will be channeled to the GOCR through ROCAP programs. Besides this U.S. assistance, the OAS and UN are sending teams to study tax policy and make recommendations for improvements in tax laws.

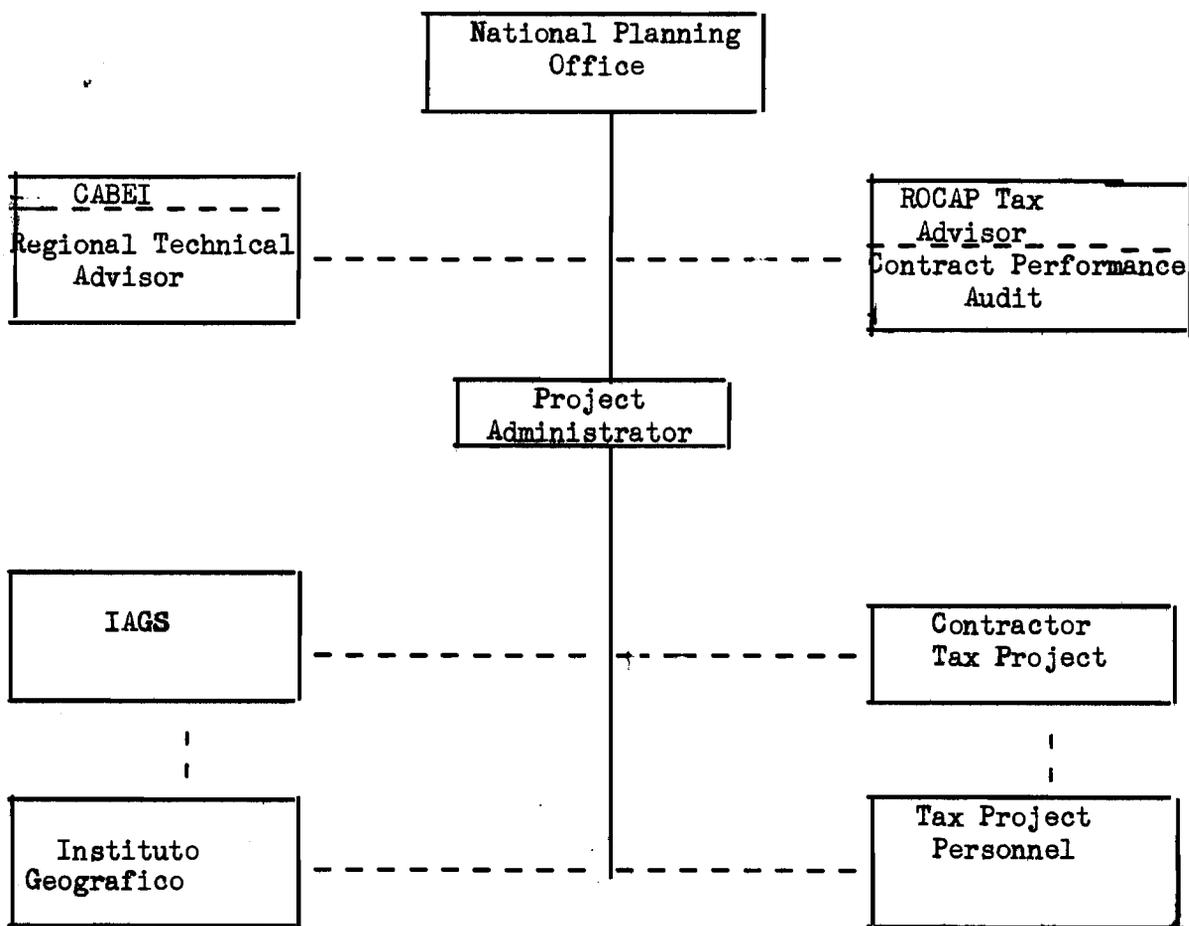
The possibility of using the proposed loan as a lever for additional GOCR tax reform efforts has been considered by AID/W and the country team. As tax mapping and property appraisal will be in

themselves tax reform, and because the GOCR has indicated a willingness to undertake certain parallel efforts in the tax field, the decision was made not to incorporate a condition precedent or a covenant formally requiring additional tax reform efforts.

The Direct Tax Office is doing a reasonably good job, within the limits of the system now in use. There is reason to believe that given better tools the GOCR would use them: on the 44,000 parcels appraised since 1960, valuations--and collections--have been increased an average of 113%.

SECTION II - BORROWER

The borrower is the Government of Costa Rica. Responsibility for administration of the loan proceeds and execution of the project will be vested in the National Planning Office, which has been given responsibility for coordinating all external assistance programs. The Instituto Geografico, a division of the Ministry of Transportation, will play an important supporting role in the tax mapping program and will, at the same time, be speeding its own basic topographic mapping program to completion. The proposed administrative organization for carrying out the project is shown below.



The financial situation of the GOCR is described in detail in Section V - Economic Analysis, and is therefore omitted here.

Role of CABEI

The arrangements worked out between CABEI and GOCR whereby GOCR pays CABEI out of its own funds, $1\frac{1}{2}\%$ per annum on the disbursed balance of the loan during the first three years (plus an initial fee of $3/4\%$ of the total amount of the loan), and $1/2\%$ for the remaining life of the loan would be to reimburse CABEI for technical services already performed or to be performed in connection with the execution of mapping and survey activities. CABEI has assembled a staff of technicians on a full-time basis which staff will be available not only to A.I.D. and Costa Rica, but also to other Central American countries to render technical advice as similar loans are negotiated in the rest of the area. In this connection, discussions are currently under way between CABEI and the Government of Nicaragua regarding a proposed Cadastral project in Nicaragua.

The role of CABEI in this matter contributes to U.S. objectives in Central America in a number of ways. The responsibility of CABEI for general technical advice on tax cadastral and natural resource surveys provides a forum in which ultimately land tax problems of all five countries can be reviewed multilaterally. The expectation is that through this device multilateral pressure to increase land tax revenues can be exerted by the Central Americans themselves rather than by direct United States pressure on individual countries.

In addition, the experience and technical proficiency of CABEI will be increased, and at least a nominal national contribution to the Fund for Central American Integration is provided for in the spread between CABEI's fee and the costs of the technical services to be rendered. This spread should be deposited in a special account, the use of which should be determined by the five Central American countries themselves, after consultation with A.I.D., at a later date.

SECTION III - ENGINEERING ANALYSIS

1. General Description of Project

The tax mapping and tax appraisal portion of the project contemplates the completion, within three years, of the preparation of property identification maps for the area of Costa Rica which contains 90% or more of its present taxable value. Once the location, area and ownership of each parcel of property has been determined, a property accounting system based on land areas will be instituted, with the total area of each political subdivision as an accounting control. At the same time objectively determined valuation standards will be applied to all taxable properties (in place of the owners' own declarations of value). Both operations (i.e. the development of property identification maps from aerial photographs, and the development and application of objective mass-appraisal standards) are standardized operations which are well known to all reputable consulting firms specializing in this type of professional service.

Total cost of this portion of the project is \$1,378,000 of which A.I.D. will finance approximately \$1,106,000. Of the \$1,106,000 loan proceeds, about \$266,000 will be used to pay for contract services of an American consulting firm which will have technical direction of the project, will develop appraisal standards and train local employees in their application, certify progress payments, etc. The remaining \$840,000 will be used for equipment and materials (see Annex II for details) and for salaries of the additional (temporary) local staff necessary to carry out the project within three years.

The topographic mapping portion of the project is aimed at speeding to completion the basic topographic mapping program on which the Instituto Geografico, assisted by IAGS, has been working since 1946. These basic maps are at a scale of 1:150,000, with 15-meter contour intervals. They are valuable to Costa Rica for many purposes. Among these are public works planning and land use planning, including resettlement planning.

Total cost of the topographic mapping portion is estimated at \$1,193,000. The amount to be financed by A.I.D. through the proposed loan is \$452,000 of which local (colon) costs amount to \$202,000 and dollar costs to \$250,000. Dollar costs are for photogrammetric and other equipment; colon costs are for the salaries and travel expenses of additional (temporary) employees, for vehicle maintenance costs and other operational costs directly connected with the enlarged operation.

2. Engineering Plan

(a) Technical Feasibility

Both the tax reform program and the topographic mapping program are on-going programs, with several years of successful operational history. In the case of the tax program, some 44,000 parcels of property (out of an estimated 350,000 parcels in the project area) have been mapped and re-valued since the present program was initiated in 1960. The only new feature in the proposed project is the use of aerial photography as a starting point for the drafting of property identification maps of rural properties. The techniques for this process are well-known to the American consulting firms specializing in such work.

The main question arose, however, whether the existing aerial photography was adequate. To answer this question, representatives of J.L. Jacobs & Co. of Chicago, and of Public Administration Service of Chicago made an on-the-spot evaluation. The representatives of both firms stated, independently, that the existing photography of the Central Valley area -- the area which contains some 70% of the country's present taxable value -- is adequate. Both men were of the opinion that the small-scale photography available for areas outside the Central Valley could be used but that larger-scale photography would be preferable. New, larger-scale photography of these areas is now being undertaken by SIECA, financed by a grant from ROCAP.

Average cost per parcel, for mapping and appraisal, is estimated by J.L. Jacobs & Co. at about \$4.50. This is a reasonable figure, somewhat lower than the average price paid by cities and countries in the U.S. for the same type of work.

The proposed project meets the requirements of FAA Section 611.

(b) Engineering Plan for Implementation of Project

Included in Annex II, attachment "C", is a copy of the job specifications for the tax-mapping, tax appraisal part of the project. This outlines the scope of the work and shows what the consulting firm is expected to accomplish. Actual "leg-work" will be done by local employees. The plan is to use 26 three-man field crews, each of which will be headed by one of the present "peritos", or appraisers,

of the Direct Tax Office. These 26 permanent employees of the Direct Tax Office, together with three others, will be on full-time detail to this project for the 3-year project period. They will remain on the Direct Tax Office payroll, but they will be responsible to the Project Administrator and will work under the technical direction of the U.S. consulting firm. The other 67 field men will be temporary employees of the GOCR, hired for a period not to exceed three years. In addition to the field crews (appraisal supervisors, appraisers and enumerators) there will be a staff of 54 temporary office employees, cartographic draftsmen supervisors (2), map tracers (7), clerk supervisors (3), clerk-typist (2), and clerks (40). The complete staffing plan and proposed salary scale are shown in Annex II, Attachment "D". Salary figures were obtained from the GOCR Civil Service Department.

The present plan requires the Government to continue to support the topographic mapping activities of the Instituto Geografico at the present rate of about \$160,000 per year. In addition, the GOCR has agreed to provide adequate office space to carry out the program, which A.I.D. understands will be in the Department of Public Works. IAGS technical assistance will continue in connection with furnishing equipment for the topographic project and in all phases of photography, in accordance with the formal agreement executed by the State Department and the GOCR foreign office, some 17 years ago. We have been informed that assistance in excess of \$80,000 per year (the recent rate of expenditure) will continue. Additionally, the IAGS will monitor the engineering phases of the topographic mapping project, and will approve progress payments. (See footnote (*) on page 9 re IAGS' funding.)

3. Maintenance

Maintenance of the system is well within the capability of the Direct Tax Office with no increase in permanent staff. By the time the project is completed at least 28 members of the permanent Direct Tax Office staff will have been trained in every aspect and phase of the new system. The GOCR is believed to be competent to maintain the system and to extend it to other areas, as needed.

4. Benefit-Cost Analysis

When this project was first developed, in mid-1962, property tax

revenue was running at an annual rate of ₡14,000,000 (\$2,150,000). At that time it was estimated that by instituting a "foolproof" property accounting system, and by substituting a modern tax appraisal system for the self-assessment system used in some 75%-80% of the cases, the tax could readily be made to yield ₡40,000,000 annually - without increasing the tax rates or changing the tax law. This estimate of the tax potential still stands.

In September 1962 the Asamblea passed a law requiring all property owners to make new tax declarations. This was an interim measure, intended to increase property tax revenue as much as possible during the interval between 1962 and the time that the cadastral survey program could be completed. It has produced fairly good results. The 1964 budget estimate for property tax revenue is ₡26,000,000; the indications are that this figure is realistic compared with annual yields in recent years. Thus, if the original estimate of ₡40,000,000 was correct, the present project can be expected to produce an annual increase of ₡14,000,000, by the end of 1967. In other words, an input of \$1,600,000 in loan funds over the next three years can reasonably--and conservatively--be expected to produce at least double that amount in new property tax revenue over the same three-year period.

It is likely, however, that the financial impact of this project will be much greater than is indicated above. It is generally recognized within the GOCR that both the present tax rate structure and the present property tax law need revision. However, until a better property accounting system and a better assessment system can be instituted, we would not expect the GOCR to consider seriously any upward revision in tax rates which would simply have the effect of magnifying the inequities that currently exist.

* - IAGS costs of \$80,000 per year cover a part of the salaries and travel expense of five U.S. advisory personnel who are assigned to the Central American Region plus the costs of related supplies and maintenance of IAGS' vehicles and planes. This advisory assistance will be provided only for the topographic mapping portion of the Project, as part of IAGS' operations in developing maps that would be available for U.S. defense uses. (The private consulting firm provided for will not be involved in this portion of the Project.) The IAGS' contribution is made in consideration of host country matching contributions for actual operations of the project.

SECTION IV - ENGINEERING AND IMPLEMENTATION PLAN

The National Planning Office will be responsible for the execution of the project and will retain a U.S. consultant firm to furnish technical guidance, prepare an appraisal manual, train and supervise local employees and certify progress payments. (See Annex II, Attachment "C", for Summary Scope of Contract Services). This approach has been used quite successfully in the states of Kentucky, New Jersey, and West Virginia, and other eastern states of the United States, where problems similar to those of Costa Rica exist. The geographical area which would be mapped and reappraised under supervision of the contractor takes in only about one-fourth of the total geographical area of Costa Rica. (This area is outlined by the heavy line and the broken lines on Attachment "A", Annex II). It is estimated that this part of the project will require 36 months for completion. During this period the technical staff (on loan from the Direct Tax Division) will be trained in the use of standard American appraisal and tax mapping techniques; appraisal standards (manual) will be developed, tested and put into use, and a standard operational pattern will be developed. It is expected that the Government will continue to use these materials and techniques in mapping and appraising the remaining areas of the country (those not included in the present project).

In the case of urban property the dimensions will be ascertained by direct measurement and the areas calculated by ordinary geometric means. The field crews will make rough sketches, with measurements; the office staff will make the final maps and compute the areas.

In the case of rural properties, the field crews will mark the boundaries of individual properties right on the aerial photographs and will ascertain the ownership, after consultation with the property owners or occupants. The office staff will make permanent tracings, from which any number of blue-line or other prints can be made. The areas will be determined by mechanical measurement using either compensating polar planimeters or transparent area-calculating grids similar to those used by the U.S. Soil Conservation Service. These methods (both for boundary delineation and for area computation) are admittedly approximate, but the results obtained are sufficiently accurate for tax purposes. That is, they are well within the allowable limits of error recognized by tax appraisers.

Much of the aerial photography needed for the tax mapping is now in

the hands of the Instituto Geografico and will be furnished as required. New photography for areas outside the Central Valley at scales more suitable for tax mapping, will be furnished under a portion of the \$300,000 ROCAP grant to SIECA for aerial photography.

The first area to be mapped and appraised is that outlined by the solid line on Attachment "A", Annex II. This area, the Central Valley, can be worked from the San Jose headquarters. It is estimated that this part of the work will require about 18 months.

Following this, work will be started in various portions of the area outlined in broken lines in Attachment "A", Annex II. These are the areas which are presently of secondary economic importance. For the purpose of mapping and appraising these areas, some four or five branch offices will be established at convenient locations. Each of these will be under the direction of a senior appraiser.

The trained technical staff will be split up among these branch offices and will have the responsibility for training and supervising local personnel. It is expected that office work will continue to be performed in the central office in San Jose which will also provide general supervision and coordination for the field offices. It is estimated that the second part of the tax mapping and tax appraisal project can be completed within a second 18-month period.

The priority schedule to be followed in the topographic mapping program is the same as that outlined above for the tax mapping program. The augmented staff and additional equipment will simply have the effect of speeding the basic topographic mapping program.

This project is, in the opinion of the Country Team, AID/W, and the Government of Costa Rica, technically sound.

Monitoring Responsibilities

Authority has been delegated to the USAID/Costa Rica giving it primary responsibility within the framework of A.I.D. Manual Orders to implement Alliance for Progress Dollar Loans, with the advice of the Regional Legal Advisor and Capital Development Offices. This function includes approval of conditions precedent, issuance of implementation letters, and acceptance of reports. AID/W approval on Engineering

questions is no longer required, as an A.I.D. Engineer has been assigned to the USAID staff. The USAID's Capital Development Committee, and Public Administration Unit (which is responsible for liaison with the GOCR Planning Offices) are capable of handling implementation functions. Additional technical advice will be available from ROCAP, which is staffed with a Regional Tax Advisor, and from CABEI acting as regional coordinator.

The proposed terminal date for the satisfaction of conditions precedent to disbursement would be set for approximately 90 days after the loan agreement is signed. The proposed terminal date for disbursements would be fixed at approximately $3\frac{1}{2}$ years subsequent to the date of obligation.

SECTION V - ECONOMIC ANALYSIS

A. Place of Project in Program

The GOCR is presently in a critical financial situation, and it is forecast that this situation will prevail at least for the years 1964 and 1965. Expenditures have been exceeding revenues by substantial amounts for the past five years. The GOCR must find means of increasing its revenues and reducing its administrative expenditures to solve the fiscal crisis and to accelerate its economic development. The A.I.D. strategy for Costa Rica calls for major self-help measures on the part of the GOCR toward these ends.

The proposed loan will constitute an important measure for increasing tax revenues. The property tax is the only important direct tax, other than the income tax, levied in Costa Rica.

The proposed loan forms part of the AID/Costa Rica program under Goal I, "Improvement of Government Policies and Administration". Under this goal, AID is assisting the National Planning Office in formulating and implementing national and sectoral development plans, and in effecting reforms in budgeting, tax structure, and government administration. The proposed loan will also complement Goal 2, "Private Investment and Industrial Development", and Goal 3, "Rural Development", by encouraging a more efficient use of land and by providing a sounder base for the ongoing GOCR land reform program.

The project also relates to the regional strategy for the coordination of Central American national fiscal policies, including real property taxes.

1. Opinions and Recommendations of the Country Team

At the FY 1964-65 program review held in AID/W in October 1963, general agreement was reached on the fundamental importance of improving the GOCR's fiscal situation. Priority was given to the U. S. assistance effort in this field, and was incorporated in the Strategy Statement for Costa Rica. Inasmuch as the proposed cadastral loan will represent a significant step in this effort, the Country Team urges the immediate approval of this loan. This priority was reemphasized by the Ambassador

and Mission Director during the State/AID Washington meeting of Ambassadors and Mission Directors in March, 1964.

B. Project's Contribution to the Country's Economic Development

This project will assist in the establishment of modern property tax and land valuation systems in Costa Rica. It thereby will serve to increase revenues from property taxes substantially. In 1962, property taxes accounted for 21.3% of direct tax collections and for 4.6% of total GOCR revenues. It is estimated conservatively that after completion of the cadastral survey, revenues from property taxes will rise from \$2.7 million (in 1962) to about \$6 million a year.

The topographic mapping aspect of the project will facilitate the establishment of property boundaries and hence the registration of such properties. These steps will complement the land tax reforms achieved through the tax mapping and tax appraisal programs.

In addition to raising tax revenues, this project also will help to bring about the most economic use of the land and to minimize speculation in real property. Public discussion of the project has already tended to stabilize land prices in urban areas, and in some cases has even resulted in a lowering of such prices. Thus, the existing high ratio of land cost to improvement cost should be affected favorably by this project.

C. Background of Costa Rica's Financial Problem

1. Public Finance and Taxation

Although its per capita GNP (\$370 in 1962) is the highest in Central America, Costa Rica has been unable to sustain a satisfactory rate of growth since the drop in coffee prices began in 1958. While national income aggregates are uncertain guides in an economy as small and as lacking in basic statistics as Costa Rica's, it appears that per capita income declines between 1958 and 1961. Aggravating the problem is one of the highest rates of population growth in the world, estimated at 4.1 per cent per-annum. However, because of an improvement in export trade and a substantial inflow of foreign capital, per capital product reportedly rose 2.6% in 1962.

a. Recent fiscal revenue trends

Notwithstanding the economic difficulties of the country, the current revenues of the Central Government increased from C312 million in 1957 to C423 million in 1962. However, the 1962 figure included some C23 million of special income tax receipts normally due in 1963, which were paid in advance by virtue of a 5 percent discount for such payment. Excluding this partial doubling up of income tax collections, 1962 revenues were C400 million. The increase of Central Government current revenues averaged 5.1 percent (compounded) per year during 1957-62, somewhat more than the 4.1 percent yearly increase in population.

b. Trends in Government expenditures

Since 1957 the expenditures of the Central Government have increased at an accelerating pace. The total was about C327 million in 1957, and rose to C474 million in 1962, equivalent to approximately 17 percent and 19 percent, respectively, of national income in those years.

c. Central Government deficits

As a result of these trends and the weak fiscal position that already existed in 1957, the Costa Rican Government has had a gap between current revenues and expenditures in 1957 and 1960-62. The annual deficits are shown in the following data obtained from official sources (in millions of colones):

	<u>1957</u>	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>
Expenditures	327.4	341.5	350.2	375.2	407.3	473.8
Current Revenues	<u>311.7</u>	<u>341.7</u>	<u>351.7</u>	<u>351.0</u>	<u>318.0</u>	<u>422.1</u> ^{1/}
Deficit	15.7	(/0.2)	(/1.5)	24.2	89.3	51.1

^{1/} Includes some C23 million of income tax collections that normally would have been payable in March 1963.

At present, the government is still moving toward fiscal crisis. The gap between 1963 revenues and expenditures has been estimated at C90.4 million. About 50 percent of the deficit will be financed by

borrowing in the United States (20 million colones from U.S. banks, nearly 9 million colones from "rolling over" two Eximbank loans, and 15 million colones in disbursement of A.I.D. loans). None of the principal items of finance is a source of recurring revenue. For 1964 the proposed budget provides for another increase in government outlays (about 20 per cent over 1963) and a deficit of about 64 million colones is to be financed by a further increase in government debt. With government debt (floating and long-term) on the increase, there is a large accumulation of unpaid bills, and as of June 30, 1963, the floating debt reached 89 million colones. Treasury bonded debt stood at 278 million colones as of the same date. By the end of November 1963, the floating debt had declined to 68 million colones but bonded debt had increased to 347 million colones.

The draft A.I.D. strategy for 1964 and 1965 provides for every possible pressure to encourage GOCR to take measures to improve its fiscal situation. The international lending agencies, including the IDB, and with the strong support of the IMF, have agreed upon a unified approach to Costa Rica, indicating their concern with Costa Rica's fiscal and financial problems. The Country Team has been urging the government at all levels to develop recurring sources of tax revenues.

d. Balance of Payments

Costa Rica's net balance of international payments and its constituent items during 1956-1962 have been as follows, in million of dollars:

	<u>1956</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>
Merchandise	-14.3	-8.0	2.8	-15.4	-14.5	-12.2	-9.5
Other Services	- 5.1	-12.5	-12.3	- 9.3	-7.9	-7.4	-10.9
Official Donations	2.3	6.5	8.5	5.9	3.5	5.8	-2.6
Import Credits	2.3	5.8	2.3	2.3	7.5	0.9	9.6
Other Capital Movements	<u>5.7</u>	<u>9.0</u>	<u>6.2</u>	<u>10.7</u>	<u>8.8</u>	<u>8.3</u>	<u>13.3</u>
Change in Reserve	-9.1	+ 0.8	+7.5	-5.8	-2.6	-4.6	+5.1

Source: Banco Central de Costa Rica, Balanza de Pagos,
14^o Reporte Anual 1962, p.9

Prior to 1956, Costa Rica normally showed a surplus on visible trade. Since that time, however, with declining prices of major exports and deteriorating terms of trade, Costa Rica generally has suffered a deficit on merchandise trade. In order to meet its fiscal deficits, Costa Rica has borrowed heavily from both internal and external sources. One result of this financing has been a steady upward movement in external debt service payments.

The current account deficit has been financed by direct investment from abroad, government (including autonomous agencies) borrowing overseas, U.S. grant assistance, and an inflow of short-term money in the form of import credits. The problem to be faced in the future is that of financing increasing import requirements in the face of only moderate increases in exports. The economy as a whole will be even more dependent on maintaining the flow of long-term investment from abroad, and policy will need to be directed towards that objective. At the same time, increasing the level of development expenditures will necessitate increased GOCR borrowing and/or drawing on reserves to pay for capital imports.

While the subject project will not have a direct effect on the balance of payments, the increased revenues which eventually will be derived from improvements in the property tax and its administration will assist the GOCR in meeting the local currency requirements of its development projects.

D. Economic Soundness

It has been estimated that even at the present tax rates the GOCR, in 1963, realized only about 47% of its potential revenue from property taxes, because of conditions previously mentioned. Revenues from property taxes during the years 1957-1963 have been as follows:

<u>Year</u>	<u>Amount</u>	
	<u>Millions of Colones</u>	<u>Millions of U.S. Dollars</u>
1957	10.4	1.6
1958	11.0	1.7
1959	12.7	1.9
1960	14.3	2.2
1961	14.2	2.1
1962	17.6	2.7
1963 (Preliminary)	19.0	2.9

Source: Informe Oficina de Presupuesto-1962, p.35

Converted at rate of 6.62 colones per dollar.

The modest increases in revenue from the property tax in 1962 and 1963 resulted from an interim reform in property tax legislation enacted in September 11, 1962. This law (Ley de Declaracion Jurada de Bienes Inmuebles- No. 3026) effective September 18, 1962, required all property owners to submit new sworn declarations as to the amount, location, and value of real property owned, and imposed stiff penalties for noncompliance.

As a result of the cadastral program and the interim measures taken by the GOCR, additional property tax revenues of some 21 million colones (U.S. \$3.1 million) a year are expected to be forthcoming. Thus, revenues from the land tax would rise from some \$2.9 million in 1963 to \$6.0 million a year after completion of the cadastral survey. In terms of 1963 receipts this would be equivalent to an increase from 5% to about 10% of GOCR revenues. It is expected that increases in property tax revenue will be produced almost from the beginning of the program, because the increased valuations will become effective in the quarter following each property reappraisal.

E. Repayment Prospects

This project will generate income and thus can, in a sense, pay for itself in a reasonable period of time.

The public debt of the central government (i.e., excluding the autonomous institutions) stood at \$104.9 million at the end of

November 1963, compared with \$52.6 million at the end of 1956, representing almost a 100% increase in seven years. Public debt charges for 1963 were estimated at \$9.3 million, or 15% of estimated budget revenues.

(a) External Debt - The external debt of the central government at the end of November 1963 amounted to \$37.5 million or 36% of the total central government debt. Amortization and interest payments during 1960-62, and estimates for the years 1963-70, based on the debt as of December 31, 1962, are shown in the following table in millions of dollars:

<u>Year</u>	<u>Amortization</u>	<u>Interest</u>	<u>Other Foreign Debt</u>	<u>Total</u>
<u>Actual</u>				
1960	4.1	1.4	-- 5.	5.5
1961	5.2	1.7	--	6.9
1962	9.5	2.5	--	12.1
<u>Estimated</u>				
1963	6.6	3.0	5.0 /a	14.6
1964	6.2	3.2	7.5 /b	16.9
1965	6.8	2.9	--	9.7
1966	5.9	2.5	--	8.4
1967	n.a.)	n.a.	--	7.3
1968	n.a.)	n.a.	--	6.2
1969	n.a.) /c	n.a.	--	6.1
1970	4.4	1.6	--	6.0

/a - Continental Illinois loan.

/b - Payments to the IMF from the portion of the Standby Agreement loan disbursed in 1961.

/c - Breakdown debt service not available.

As shown in the foregoing tabulation, total foreign debt service payments are to be relatively high during 1964, but are to decline markedly in 1965 and gradually thereafter. Loans contracted by the GOCR during 1963 amounted to \$29.1 million, of which \$7 million (from A.I.D.) carried a 10-year grace period on repayment of principal and \$22 million (from IBRD) carried a 3-year grace period on principal. All the loans were long-term (23 to 40 years).

(b) Debt Record - In 1961 and the first half of 1962, the GOCR was in partial default on its debt service payments to the Export-Import Bank and to holders of its foreign bonds. However, on June 1, 1962, the GOCR obtained a \$5 million loan from the Continental Illinois Bank of Chicago to pay the foreign public debt in default and to resume service on the domestic public debt. Service payments were resumed in July, 1962.

The servicing of the cadastral survey loan should present no problem to the GOCR.

SECTION VI - FINANCIAL ANALYSIS

1. Total Financial Requirements

The total additional financing required for this project is the amount of the loan request - \$1,600,000.

2. Borrower's Financial Status and Financial Participation

The GOCR's critical financial condition was discussed in Section V, C, of this paper. Some temporary measures have been taken to cope with this situation, and more permanent measures--including major tax reforms--are under consideration. There is a need not only for additional revenue but for more dependable revenue. The property tax reforms resulting from the cadastral survey and the interim measures undertaken by the GOCR should provide some \$3.1 million a year in additional, dependable revenue. However, because of the GOCR's present financial plight and the demands of the exploding population for improved and expanded government services, we recommend that the GOCR be given a maximum grace period before starting to repay the principal on the loan.

3. Action by Eximbank and International Institutions

Eximbank informed A.I.D. in writing on October 31, 1963, that it was not interested in this project because of the substantial local cost component. An expression of disinterest in the project was voiced by IDB on December 18, 1963. In light of the terms required for this loan it is unlikely that private financing would be available.

4. Financial Plan

The proposed expenditure of the loan is as follows:

Tax Mapping and Tax Appraisal \$1,106,000 - 3 years

Vehicle costs	\$ 73,000
Vehicle maintenance	51,000
Gas and oil	38,000
Office equipment and supplies	46,000
Mapping supplies and equipment	13,000
Enlargements of photography	35,000
Printing	11,000
Field supplies	7,000
Housing and subsistence - Local employees	75,000
Transportation and Housing - Consultant Staff	26,000
Salaries - Consultant Staff	120,000
Consultant fee	120,000
Salaries - Local staff	446,000
Reserve for contingencies	45,000
TOTAL	<u>\$1,106,000</u>

See Attachments D, E, F, G, and H, Annex II, for detailed cost analysis.

Topographic Mapping - \$452,000 - 3 years

Photogrammetric equipment	\$ 171,000
Salaries and travel expense (add. staff)	180,000
Vehicles and maintenance	28,000
Gas and oil (additional)	10,000
Field and office equipment	43,000
Other costs	20,000
TOTAL	<u>\$ 452,000</u>
Grand Total Loan Expenditures	<u>\$1,558,000</u>
IAGS contribution	240,000
GOCR contribution (including salaries of Government employees \$729,000)	773,000
Total Project Costs	<u>\$2,571,000</u>

See Attachment E, Annex II, for detailed cost analysis of topographic mapping costs.

The anticipated disbursement schedule is as follows:

	<u>Tax Mapping and Appraisal</u>	<u>Topographic Mapping</u>	<u>Total</u>
First Year	\$ 451,000	\$262,000	\$ 713,000
Second Year	263,000	139,000	402,000
Third Year	392,000	51,000	443,000
	<u>\$1,106,000</u>	<u>\$452,000</u>	<u>\$1,558,000</u>

The summary (See Annex II for detailed cost break-down) break-down between local costs and U.S. costs is as follows:

Tax mapping and appraisal

Local Costs	677,000	
U.S. Costs	<u>429,000</u>	
		\$1,106,000

Topographic mapping

Local Costs	202,000	
U.S. Costs	<u>250,000</u>	
		452,000
Total Loan		<u>\$1,558,000</u>

Recapitulation Total A.I.D. Financing

Local Costs	\$ 879,000	56%
U.S. Costs	<u>679,000</u>	<u>44%</u>
	<u>\$1,558,000</u>	<u>100%</u>

GOCR CONTRIBUTIONS
(In dollar equivalents)

	<u>1st Year</u>	<u>2nd Year</u>	<u>3rd Year</u>	<u>TOTAL</u>
Tax	96,000	88,000	88,000	272,000
Topo	<u>149,442</u>	<u>167,093</u>	<u>184,343</u>	<u>500,878</u>
Total	245,442	255,093	272,343	\$772,878

Other External Financing

IAGS	80,000	80,000	80,000	\$240,000
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SECTION VII - EFFECT UPON THE U.S. ECONOMY

A. Competition with Private Enterprise

This project will not have any unfavorable effects upon the U.S. economy and will not compete with U.S. private enterprise. To the extent that it will increase the revenue of the GOCR, this project should add impetus to the country's present and future development programs whose expansion will result in additional trade with and procurement in the United States.

B. Source/Origin and Procurement of Goods and Services

All goods and services financed by this loan shall have their source and origin in the United States or the Central American Common Market countries.

SECTION VIII.- ISSUES

Proposal calls for A.I.D. financing of approximately 50 percent of the local currency requirements of this project over the three-year period, including certain administrative personnel and support costs. However, in view of the present difficult financial position of the GOCR (see Section V A) and considering the major objective of this proposal designed to increase tax revenues, the Committee recommends approval for such financing. In this connection, it is intended to utilize appropriate procedures to generate required local currency based upon imports from the United States.

SECTION IX - RECOMMENDATIONS

Authorization of a loan to the GOCR Ministry of Economy and Finance for an amount not to exceed \$1,600,000 subject to terms and conditions as described below:

A. Terms

1. Term of Loan: 40 years
2. Interest: $3\frac{3}{4}\%$ per annum for first 10 years,
2% thereafter
3. Grace Period: 10 years
4. Repayment: U.S. Dollars

B. Conditions

1. A.I.D. has agreed in principle that the Central American Bank for Economic Integration (CABEI) will act as regional technical adviser to AID loan projects in the region, serving as a regional depository of experience and technical information for such loans. In remuneration for this service, the GOCR will pay CABEI an initial credit fee of $\frac{3}{4}$ of one percent on the entire amount of the loan, $1\frac{1}{2}$ percent on the disbursed balance, during the first three years after first disbursement, and $\frac{1}{2}$ of one percent on the disbursed balance during the remaining life of the loan. To the extent that these fee payments exceed the costs to CABEI of providing technical advice, CABEI will deposit that difference into the FUND for Central American Integration - the uses of which will be determined at a later date.
2. All equipment, materials and services (except shipping, which shall be procured from the United States, and marine insurance) financed under the loan shall be procured from the United States of America or member countries of the Central American Common Market.

3. United States dollars utilized under the loan to finance local costs shall be made available to the Borrower or its designee through appropriate procedures and such dollars shall be used only for procurement in the United States (excepting marine insurance).
4. A qualified United States consulting firm shall be retained to develop appraisal standards, train local staff, certify progress payments, supervise the preparation of tax maps, and have general technical direction of the tax project.
5. Borrower shall covenant to make available sufficient resources for the timely completion of the Project, including such resources as may be necessary to meet possible increases in the salaries of personnel employed on the Project.

CHECK LIST OF STATUTORY CRITERIA (ALLIANCE FOR PROGRESS)

- # * 1. Foreign Assistance Act of 1961, as amended (hereinafter FAA), Section 102. The loan will further the policy of the Act, as stated in this Section. Every possible precaution will be taken to assure that loan proceeds are not diverted to short-term emergency purposes (such as budgetary purposes, balance of payments purposes, or military purposes) or any other purpose not essential to the long-range economic development of
COSTA RICA -(See Section V, Parts A, B, and C.)

- # * 2. FAA Section 201(d). Loan funds are not to be loaned or re-loaned at rates of interest which are excessive or unreasonable for the Borrower, or higher than the applicable legal rate of interest in Costa/Rica 6 per cent. This loan will be extended to the Government of Costa Rica at less than 6% interest, and will not be reloaned by the GOCR.

- * 3. FAA Section 202(c), Foreign Aid and Related Agencies Appropriation Act of 1964 (hereinafter "App."), Section 117. Funds have been appropriated by Congress for this loan.

- * 4. FAA Section 204. The terms and conditions of the loan are in accordance with standards and criteria established by the Development Loan Committee.

- # * 5. FAA Section 251(a). The loan will promote economic development in Costa Rica and will contribute to the welfare of its people. (See Section V, Part B.)

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- # 6. **FAA Section 251(b)(1).** Account has been taken of the extent to which **COSTA RICA** is adhering to the principles of the Act of Bogota and Charter of Punta del Este and is showing a responsiveness to the vital economic, political, and social concerns of its people, and of the extent to which **COSTA RICA** has demonstrated a clear determination to take effective self-help measures.
(See "Costa Rica -Slum Replacement Housing - Loan Paper AID-LA/P-20, Annex I, Page 18.)
- # 7. **FAA Section 251(b)(2).** The activity to be financed is economically and technically sound.
Refer Section III, and Section V, Part D.
- # 8. **FAA Section 251(b)(3).** The activity is consistent with and is related to other development activities being undertaken or planned and will contribute to realizable long-range objectives.
Refer Section V, Parts A and D.
- # 9. **FAA Section 251(b)(4).** The loan will have no foreseeable adverse effect on the U. S. economy.
Refer Section VII.
- # 10. **FAA Section 251(b).** Financing from other free world sources (including private sources within the United States) on reasonable terms for the project is not available.
Refer Section VI, Item No. 3
- # 11. **FAA Section 251(b).** The terms of the loan (interest, year amortization) are reasonable under circumstances affecting the loan and the capacity of Borrower to repay.
See Section V, Part E.

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- * 26. FAA Section 620(a), App. Sections 109(a), 109(b). No assistance will be furnished under this loan to the present government of Cuba, nor does Costa Rica furnish assistance to the present government of Cuba. Costa Rica has taken appropriate steps to prevent ships or aircraft under its registry from engaging in any Cuba trade.
- * 27. FAA Section 620(b). The Secretary of State has determined that is not controlled by the International Communist Movement.
- * 28. FAA Section 620(c). Costa Rica is not indebted to any U. S. citizen for goods or services furnished or ordered, where such a citizen has exhausted available legal remedies or where the debt is not denied or contested by or the indebtedness arises under an unconditional guaranty of payment given by Costa Rica. (Note: GOCR is presently delinquent in an obligation on the order of \$150,000 to Pan American. Pan Am has not exhausted available legal remedies.)
- * 29. FAA Section 620(d). Loan funds will not finance construction or operation of any productive enterprise which will compete with United States enterprise.
- * 30. FAA Section 620(e). Neither the government of Costa Rica nor any governmental agency or subdivision thereof has, on or after January 1, 1962, nationalized, expropriated, or seized ownership or control of property of any U. S. citizen or firm, taken steps to repudiate or nullify existing contracts with such citizens or firms, or imposed or enforced discriminatory taxation or other exactions or restrictive conditions, or taken other actions having the effect of nationalizing, expropriating or otherwise seizing ownership or control of property owned by U. S. citizens or firms, as specified in this section of the Act, without taking appropriate steps to discharge its obligations, as specified in this section of the Act.
- * 31. FAA Section 620(f), App. Sections 109(a), 109(b). Assistance provided by this loan will not be furnished to any Communist country.
- * 32. FAA Section 620(g). Assistance provided by this loan will not be used to compensate for expropriated or nationalized property.

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- * 33. FAA Section 620(h). Assistance provided by this loan will not be used in a manner which promotes or assists foreign aid projects or activities of the Communist bloc countries.
- * 34. FAA Section 620(i). The President has not determined that Costa Rica is engaging in or preparing for aggressive military efforts directed against the United States, or any country receiving assistance from the United States, or against any country to which sales are made under PL 480, nor is any basis for such determination known to A.I.D.
- * 35. FAA Section 636(h). The Government of Costa Rica will contribute local currency in the equivalent amount of \$772,878 to meet the cost of contractual and other services to be rendered in conjunction with the project. Foreign currency owned by the United States will, to the maximum extent possible, be utilized to meet the costs of contractual and other services for the project.
- * 36. App. Section 102. Obligations of funds in excess of \$25,000 for engineering fees to any firms or group of firms financed under the loan will be reported to the committees on appropriations of the Senate and House.
- * 37. App. Section 104. Funds obligated by the loan, and local currency generated thereby, will not be used to pay pensions, annuities, etc., as prohibited in this section.
- * 38. App. Section 111. U. S. personnel to serve under contracts for services financed by the loan shall have security clearance.
- * 39. App. Section 112. Firms which provide engineering, procurement, and construction services financed by the loan for the project, and the terms of their contracts, shall be approved by A.I.D.
- * 40. App. Section 114. Loan funds will not be used to make any payment to the U. N.

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- * 41. App. Section 118. Construction work financed by the loan shall be performed by qualified persons, in accordance with A.I.D. regulations promulgated pursuant to this section.
- * 42. App. Section 601. Loan funds will not be used for publicity or propaganda purposes within the United States.

F. M. Karsten:LA/CD

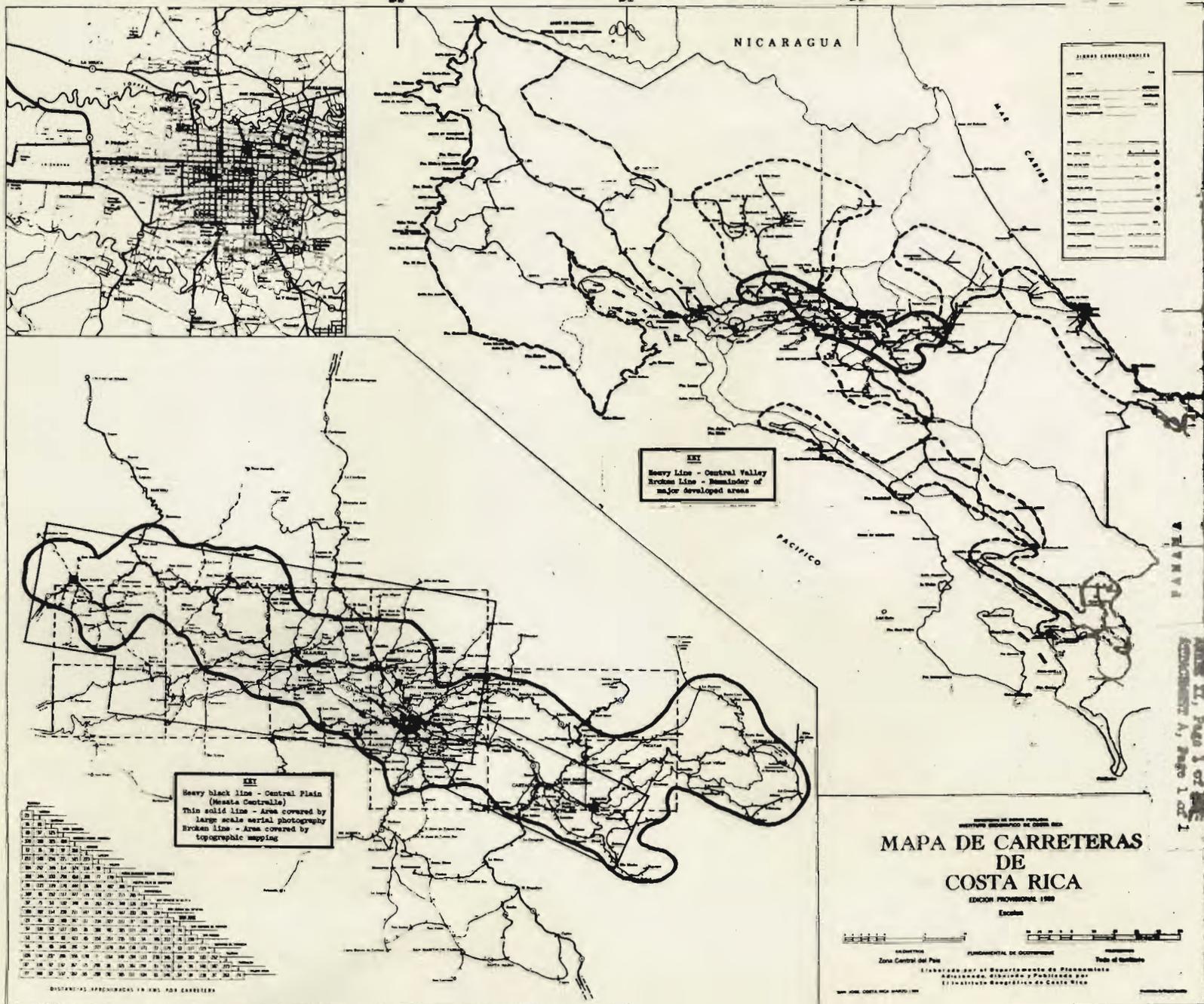
Chairman, Project Committee

CLEARANCE: Counsel PHornbostel:LA/GC
Desk HRandall:LA/CEN
Engineer CSchofield:LA/ENGR
Other (Specify) Cecil Morgan, ROCAP Tax Mapping Adviser

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PROJECT TABLES AND EXHIBITS

<u>Attachment</u>		<u>Page</u>
A	Map of Costa Rica showing Areas Covered by Project	1
B	Sample of Existing Topographic Maps	2
C	Summary Scope of Contract Services	3
D	Summary of Estimated Cost of Tax Mapping and Appraisal of Major Developed Areas - 36-Month Plan	8
E	Detailed Cost Analysis of Topographic Mapping Portion and Participation by the Instituto Geografico	15



MAPA DE CARRETERAS DE COSTA RICA
 EDICION PROVISIONAL 1959
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INTEND. OFICIAL USE
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ATTACHMENT B, Page 1 of 1

ES62
Escala 1:25,000 (1961)



Preparada por el Instituto Geográfico de Costa Rica (asistencia del Ministerio de Obras Públicas), San José, Costa Rica, por el método aerofotogramétrico basado en fotografías aéreas tomadas en 1958 por el Servicio Geográfico Interamericano. Control cartográfico y edición ejecutados por el Instituto Geográfico de Costa Rica y el Servicio Geográfico Interamericano.

INDICE DE HOJAS ADYACENTES

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SUMMARY SCOPE OF CONTRACT SERVICES

It is proposed that a qualified U.S. consulting firm provide technical assistance and related services to the National Planning Office, Project Administrator and Direct Tax Office of the GOCR in planning, training, directing and supervising the preparation of property identification maps, individual property owner's index cards, individual property records cards with appraisals recorded thereon of all assessable real properties located within the area shown on attached map.

I. PROPERTY IDENTIFICATION MAPS

A. A set of property identification photo maps of uniform size covering those portions of the country outlined in Attachment A will be prepared from ratioed enlargements of the latest and best aerial photographs available in the Instituto Geografico. Wherever possible, semicontrolled mosaics will be prepared, utilizing existing topographic maps or existing ground controls for horizontal control.

B. Property ownerships will be established in the field and plotted onto the aerial photographs as part of the enumeration operation, by inquiry and agreement of adjoining owners when possible. When adjoining owners cannot be brought together or when there is disagreement between them, the field crews will use the best information available to them and will indicate the source on the property record cards.

1. In the case of rural properties, the property lines will be plotted onto the enlargement of the semicontrolled mosaics mentioned above. Areas of rural parcels will be computed by use of compensating polar planimeters, area calculating grids of the type used by the U.S. Soil Conservation Service or by another method which will produce equally accurate results at less expense.

2. In the case of urban properties measurements will ordinarily be made with either a steel tape or with a steel wire reinforced cloth tape and area computations made by ordinary geometric means. Plottings will be made onto enlarged aerial photographs or onto plat drawings of available surveyed areas.

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C. Property identification map scales will be as follows:

- 1. High-value urban areas 1:500
- 2. Low-value urban areas 1:1000
- 3. ~~Suburban or small tract~~ areas 1:2000
- 4. Rural areas 1:5000

D. A system of map identification will be devised, so that each photo map and each plat will have an identifying symbol and/or number to differentiate same from all other photo maps for each mapped portion of the country, as well as the unmapped portions of the country.

E. Each lot or parcel will be identified under the system of numbers or symbols whereby the ownership of each lot or parcel can be ascertained by reference to the property owner's index card and property record cards.

F. A filing system will be devised for the rural photo maps and urban plats which will permit ready finding of any desired map or plat and any lot or parcel on the map by reference to its designating symbol and/or number. The map filing system will be keyed to the property owners' index cards and property record cards so that the ownerships and location of each parcel can be readily ascertained.

G. Pencil tracings on vellum, mylar or chronoflex sheets, of the photo maps and plats, will be prepared at the scale indicated in I-C above, together with two (2) prints of each tracing. In addition to the property lines, the tracings will show railroads, roads, streets, rivers, streams and lakes. Such physical features shall be identified by lettered names.

II. PROPERTY RECORD & APPRAISAL CARDS

A. Property record and appraisal cards will be designed by the contractor for residential, farm, commercial and industrial, and exempt or non-assessable real properties. These cards will contain such information as: name of owner, location, map index number, description of land and improvements and spaces for the recording of pertinent appraisal data for each parcel in the portion of the country included in the project.

B. These cards will be filed by plat and block for urban property and by map sheet for rural and suburban property, in geographical order. Exempt properties will not be appraised but cards identifying the exempt properties shall be placed in their proper geographical order.

C. The size, form and design of the property record card will require approval of the Project Administrator and the Chief of the Valuation Division of the Direct Tax Office, before being printed.

III. PROPERTY OWNER'S INDEX CARDS

A. Property owner's index cards will be designed by the contractor consisting of an alphabetical listing of all property owners within each canton or district showing the property index number of the lot or parcel owned by each owner within the canton or district and cross-indexed with the property tax maps, the address of the property owned and the mailing address of the property owner if available.

B. The size, form and design of the permanent property index card will require approval of the Project Administrator and Chief of the Valuation Division of the Direct Tax Office, before being printed.

IV. APPRAISAL STANDARDS AND PROCEDURES

A. Existing unit land values and building classifications, costs and depreciation schedules shall be reviewed and compared against evidences of full value.

B. Revisions to existing land and building appraisal standards, particularly for rural, commercial, industrial and special purpose properties will be prepared subject to approval by the Project Administrator and the Chief of the Valuation Division of the Direct Tax Office.

C. Procedures for field and office operations to insure uniformity of effort of the enlarged staff will be developed subject to approval as on B. above.

D. An enlarged appraisal manual incorporating the approved procedures and appraisal standards will be prepared and printed.

V. PROPERTY APPRAISALS

A. An enlarged field and office staff, together with the present appraisal staff of the Direct Tax Office, shall be trained in land and building appraisal techniques and in property line delineation of the aerial photographs.

B. Each property will be enumerated in the field to include measuring structures, recording structural details, details on permanent improvements (plantings, etc.) and delineating property lines on aerial photographs or urban plats.

C. All structures will be classified in the field into appropriate grades; deterioration and obsolescence of structures and permanent improvements will be estimated.

D. All rural lands will be classified into land capability classifications utilizing available information on soil type, slope, erosion, productivity and existing land use. The classification of rural lands will be plotted onto a copy of the aerial photograph coverage of the specified areas.

E. Appraisal standards will be applied in the office for land, buildings and permanent improvements utilizing the data recorded on the property record cards and aerial photographs to arrive at a preliminary valuation.

F. A final field review of the preliminary valuations will be made to check for valuation accuracy and uniformity.

VI. REVIEW OF VALUATIONS

A. Notification documents will be prepared for indicating new assessed valuations to all property owners.

B. Informal reviews of new assessed valuations and property ownership lines will be scheduled and conducted with property owners.

SUMMARY OF ESTIMATED COST OF TAX MAPPING AND
 APPRAISAL OF MAJOR DEVELOPED AREAS - 36-MONTH PLAN

<u>Account</u>	<u>Man-Months Required</u>	<u>Average Monthly Salary Cost</u>	<u>Total Cost</u>
<u>Personnel</u>		<u>\$U.S.</u>	<u>\$U.S.</u>
Enumerator	2,122	120	254,640
Cartographic Draftsman	72	185	13,320
Map Tracer	220	110	24,200
Clerk Supervisor	108	150	16,200
Clerk Typist	72	100	7,200
Clerk	1,445	90	130,050
Consultant Staff	120	1,000	120,000
			<u>\$565,610</u>

SCHEDULE OF STAFF REQUIREMENTS

Based on analysis of the type and complexity of properties to be mapped and appraised and on the experience of the appraisers in the Valuation Department, an estimate of the man-day staff requirements for each of the major operations has been computed.

The recommended plan is based on a 36-month completion and staff requirements have been estimated accordingly. An earlier completion is not recommended as such a schedule would require adding untrained and inexperienced appraisers (peritos) to increase the staff. We believe best results will be obtained by utilizing the existing appraisal staff to obtain realistic and sound appraisals.

The table on the following page shows the estimated man-day staff requirements for the recommended plan. This is a summary of the detailed estimate of staff requirements which was worked up and submitted to the US AID/CR Mission staff. It shows the estimated manpower requirements on each major operation.

On the major appraisal operation of field identification and enumeration of individual properties, it should be noted that the general plan calls for three-man crews to be in the field, composed of one appraiser (perito) as crew leader (GOCR) and two enumerators. The second and third largest volume operations of calculating values and preparing maps are shown by the requirements for clerical personnel, map tracers and abstractors.

The man-day staff requirements have been converted into man-month requirements using an average of 18 working days per month to account for holidays, required vacations and local personnel practices.

The following is a tabulation of man-month and staff requirements by class of personnel for the 36-month completion plan. The totals for the staff on the major operations are taken from the following summary and are augmented by our estimate of consultant staff.

36-MONTH COMPLETION PLAN - ESTIMATED MAN-MONTH STAFF REQUIREMENTS OF ALL LOCAL EMPLOYEES

<u>Class of Staff</u>	<u>Man Months</u>	<u>Number Staff Required</u>	<u>Number Months Required</u>
Enumerator	2,122	67	32
Cartographic Draftsman			
Supervisor	72	2	36
Map Tracer	220	7	35
Clerk Supervisor	108	3	36
Clerk-Typist	72	2	36
Clerk	1,445	40	36
Total Costa Rica Staff	<u>4,039</u>	<u>121</u>	
Consultant Staff	108	3	36
Consultant Staff	12	1	
Total Consultant Staff	<u>120</u>	<u>4</u>	
Total Staff Requirements	<u>4,159</u>	<u>125</u>	

ESTIMATED MAN-DAY STAFF REQUIREMENTS OF SUPERVISORY AND PRODUCTION EMPLOYEES

<u>Major Operation</u>	<u>Enumerator</u>	<u>Cartographic Draftsman Supervisor</u>	<u>Map Tracer</u>	<u>Clerk Super- visor</u>	<u>Clerk Typist</u>	<u>Clerk</u>
Set-up Training	820	55	100	75	30	580
Appraisal Standards	-	30	60	-	40	-
Appraisal	39,138			-	1,291	24,022
Property Ownership Identification Maps	-	206	4,000	-	-	-
Reconciliation of Records	300	-	-	-	-	2,704
Supervision	-	1,070	-	1,966	-	-
<u>Total Man-Days</u>	<u>40,258</u>	<u>1,361</u>	<u>4,160</u>	<u>2,041</u>	<u>1,361</u>	<u>27,306</u>
<u>Total Man-Months</u>	<u>2,122</u>	<u>72</u>	<u>220</u>	<u>108</u>	<u>72</u>	<u>1,445</u>

EQUIPMENT, SUPPLY, TRANSPORTATION AND EXPENSE REQUIREMENTS
TAX MAPPING AND TAX APPRAISAL

<u>Item</u>	<u>Unit Cost</u> <u>U.S. \$</u>	<u>Quantity</u>	<u>Total</u> <u>Cost</u>
<u>OFFICE SPACE</u>	\$15/M/ yr.	700/M/ 3 yrs.	\$ 31,500 *
Utilities	30/mos.	36 mos.	1,080 *
Telephone Service	100/mos.	36 mos.	3,600 *
Sub-Total			<u>\$ 36,180 *</u>
<u>OFFICE FURNITURE AND EQUIPMENT</u>			
Desks	100 ea.	15	\$ 1,500 *
Tables (2 place)	85 ea.	25	2,125 *
Chairs - posture	30 ea.	56	1,680 *
- folding	10 ea.	100	1,000 *
File Cabinets	50 ea.	80	4,000
Calculating Machines	700 ea.	35	24,500
Adding Machines	150 ea.	5	750
Typewriters	300 ea.	2	600
Office Supplies	3/man/mos.	5331 man/mos.	15,995
sub-Total			<u>\$ 52,150</u>
<u>MAPPING SUPPLIES, FURNITURE & EQUIPMENT</u>			
Drafting Tables and Chairs	150 ea.	9	\$ 1,350
Fluorescent Light Tables	100 ea.	8	800
Drafting Equipment	50 set	9	450
Mylar Sheets	3,500 total	-	3,500
Topographic Maps	200 total	-	200
Duplicating Service for Existing Maps	5,000 total	-	5,000
Map Files	150 ea.	10	1,500
Sub-total			<u>\$ 12,800</u>

*To be contributed by GOCR.

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<u>Item</u>	<u>Unit Cost</u> <u>U.S.\$</u>	<u>Quantity</u>	<u>Total</u> <u>Cost</u>
<u>NEW AERIAL PHOTOGRAPHY 1:25000</u>			
Central Plain:1"=500'Enl.fr.Mosaics	25/sq.mi.	1000 sq.mi.	\$ 25,000
Other Areas:1"=1000'Enl.fr. Mosaics	15/sq.mi.	4000 sq.mi.	10,000
Sub-Total			<u>\$ 35,000</u>
<u>PRINTING</u>			
Appraisal Record Cards	20/M	350 M	7,000
Index Cards	7/M	350 M	2,450
Control Forms	500 total	-	500
Appraisal Manuals	1000 total	-	1,000
Sub-Total			<u>\$ 10,950</u>
<u>FIELD SUPPLIES</u>			
Clipboards	1 ea.	100	100
Map Boards and Covers	10 ea.	30	300
Tapes, metallic	16 ea.	90	1,440
Tape refills	10 ea.	360	3,600
Scales	7 ea.	90	630
Field Bags	5 ea.	90	450
Hectare grids	5 ea.	90	450
Sub-Total			<u>\$ 6,970</u>
<u>TRANSPORTATION (Local)</u>			
Sedans	2,000 ea.	1	\$ 2,000
Jeep station wagons	2,700 ea.	4	10,800
Jeeps (4 wheel drive)	2,000 ea.	26+4 spares	60,000
Vehicle Maintenance	40/mos./veh.	40x36x35	50,400
Gasoline and Oil	30/mos./veh.	30x36x35	37,800
Sub-Total			<u>\$ 161,000</u>

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LOCAL HOUSING AND SUBSISTENCE

ALLOWANCES (for work away
from home base)

Perito	4/day	7,500 man-days	\$ 30,000
Enumerators	3/day	15,000 man-days	45,000
Sub-Total			<u>\$ 75,000</u>

TRANSPORTATION (Supervisory)

Round-trips to Chicago (incl. families)	320 ea.	25	\$ 8,000
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SUPERVISORY HOUSING ALLOWANCE

150/mo.ea.	120 mos	\$ 18,000
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Reserve for Contingencies

\$ 45,000

TOTAL EQUIPMENT, SUPPLY, TRANSPORTATION AND EXPENSE REQUIREMENTS

\$ 461,050

RECAPITULATION

Personnel	\$ 565,610
Equipment, Supply, Transportation, and Expense	461,050
Consultant Fee	120,000
Total	<u>\$1,146,660</u>
Less: Items to be contributed by GOCR	42,485
Total cost to be financed by A.I.D.	<u>\$1,104,175</u>

A summary of local vs. U.S. expenditures is as follows:

Tax Mapping and Tax Appraisal

Local Costs:

Personnel -

Enumerators	\$254,640
Cartographic draftsmen	13,320
Map tracers	24,200
Clerk supervisors	16,200
Clerk typist	7,200
Clerks	130,050

Other Local Expenses -

Office space & utilities	36,180	**
Aerial photos & mosaics	20,000	
Printing	8,450	
Supplies	2,000	
Vehicle maintenance	25,000	
*Gas and oil	37,800	
Consultant transportation & housing	21,000	
Reserve for contingencies	22,500	

Total Local Costs \$693,540

*Travel expense local employees 75,000

Dollar Costs

Consultant staff salaries	\$120,000
Consultant fee	120,000
Office furniture & equipment	52,150**
Mapping supplies	12,800
Aerial photos & mosaics	15,000
Printing	2,500
Field supplies	4,970
Vehicles	72,800
Vehicle maintenance	25,400
Consultant staff transp.&housing	5,000
Reserve for contingencies	22,500

Total Dollar Costs \$453,120

TOTAL COSTS \$1,146,660

** - Less: Items contributed by GOCR: \$36,180
 Office space & utilities 42,485
 Furniture 6,305
 Total costs to be financed by A.I.D. - \$1,104,175

TOPOGRAPHIC MAPPING

BASIS FOR COMPUTING NEEDS:

1. It will be necessary to increase the production of 1:50,000 scale maps from 10 sheets (5,000 Kms) per year to 15 sheets (7,500 Kms) per year in order to complete the basic mapping program in the proposed period of four (4) years.
2. A study was made to determine the appropriate scale for basic mapping by reducing the scale, and therefore the costs, of the mapping of the areas not developed. The Northeastern section of Costa Rica - Las Llanuras de Santa Clara and Tortuguero - is the only area in the state of under development adaptable to 1:100,000 scale mapping. An agreement has been made with Nicaragua to jointly map the Costa Rica - Nicaragua border at 1:50,000; the remainder of the area is a narrow strip covered by four (4) lines of aerial photography at a scale of 1:60,000. Analysis of the area proved that the small savings that could be realized by mapping at a small scale was insignificant compared to the convenience of having the maps at the same scale. It was decided therefore that the entire area should be mapped at 1:50,000 scale.
3. The Instituto Geografico de Costa Rica (IGCR) will provide assistance to the Tributacion Directa in the form of equipment and personnel to accomplish the photo mosaics and photo enlargements for the real property assessment; Tributacion Directa will provide the materials needed. The latter has included in their program the cost for their support.
4. The following observations are made regarding the increased capacity in each division:
 - a. Aerial Photography.

(1) No increased potential is needed to perform the tasks outlined above as 95% of the country is covered by 1:60,000 scale photography, a contribution of the I.A.G.S. IAGS in collaboration with the USAF, is presently trying to complete the aerial photography of the remaining area.

(2) The special photography needed for tax assessment will be accomplished by a donation from the U.S. Agency for International Development, (AID/ROCAP).

b. Supplemental Field Control.

(1) The field control will be accelerated in order to finish the field surveys for the basic mapping in three (3) years. Modern electronic distance measuring instruments are required to speed up the work.

(2) No additional funds will be needed to accomplish the geophysical observation needed.

c. Field Classification.

Work will be accelerated from the present 4,500 square kilometers per year to 7,000 square kilometers per year.

d. Geodetic Computations.

Additional personnel and calculating machines are needed to handle the increased workload.

e. Photogrammetry.

(1) No capacity at all exists within the country to accomplish aerial triangulation. It will be necessary to employ and train personnel and procure equipment to perform this highly skilled phase.

(2) It will be necessary to increase the personnel and equipment to accelerate the present stereo compilation production of 5,000 sq. Kms. per year to 7,000 sq. Kms. per year.

(3) No capacity presently exists to accomplish field edit and/or field completion of map sheets. It will be necessary to provide personnel to perform this task, as photography to be utilized is a few years old and will require up-to-date field completion surveys.

f. Drafting

(1) Increase capacity from 5,000 sq. Kms. per year to 7,500 sq. Kms. per year.

(2) Three additional personnel will be needed to assist in laying out radial line template work for mosaics and in preparation of compilation sheets for the photogrammetric section.

g. Photographic Laboratory.

Personnel and equipment will be needed to rectify aerial photography, prepare mosaics and photographic enlargements in support of the real property assessment program.

h. Reproduction.

No additional personnel will be needed to handle the additional workload.

i. Administration.

Additional personnel will be needed for vehicle maintenance.

j. Vehicle and Maintenance.

In order to support the additional field potential, the following additional vehicular support is needed:

- 2 Power wagons for field survey parties
- 2 Jeeps with trailers for field survey parties
- 2 Jeeps for field classification
- 2 Jeeps for field edit parties.

l. Gasoline and Oil.

Funds will be needed for gasoline, oil and lubricants of the eight vehicles.

m. Other Costs.

Additional supplies such as photographic paper, film, paper, engraving stabalene film, stable base film, expendable items, etc. will be needed for the increased production of maps. These materials are in addition to the specific support to be provided by the Tributacion Directa for photo enlargements and/or photo mosaics.

SUMMARY

TOPOGRAPHIC MAPPING PROGRAM AND SUPPORT
OF REAL PROPERTY ASSESSMENT PROGRAM
(\$ = U.S. Dollars)

Photogrammetric Equipment	\$ 171,000
Salaries and Travel Exp. (Add. Staff)	180,000
Vehicles and Maintenance	28,000
Gas and Oil (Add.)	10,000
Field and Office Equipment	43,000
Other Costs	20,000
Total Costs	<u>\$ 452,000</u>

¢ = Colones (Costa Rica)

\$ = U.S. Dollars

Computation based on a rate of exchange of ¢6.62 (Colones) to \$1 (U.S. dollar).

PHOTOGRAMMETRIC EQUIPMENT

<u>QUANTITY</u>	<u>ITEM</u>	<u>COST</u>
1	Autograph Wild A-7 with 100 cm x 100 cm drawing table	\$ 57,500
1	Electrical Coordinate Printer, Wild EX5 with one set of contact gears for A7, one relay cabinet, one typewriter IBM with output - input writer, one control panel (leaflet PH 198 with sheet PH 199)	10,850
1	Pair of "Metrogon" compensating plates for A7	995
1	Reversing "Y" Coordinate gear	400
1	Steroplotting machine, Wild A-8, complete with drawing table 100 X 100 cm (Leaflet PH 182)	31,200
1	Pair of Metrogon compensating plates for A-8	995
1	Point transfer device, Wild PUG-2 (Leaflet PH 179)	2,700
1	Wild U-3 diapositive printer (Model U3-A)	8,000
1	Photographic Rectifier, 9X9", KARGEL, 0.5 to 5.0 magnification, vernier readings 0-1 of 1%. Auto focusing through full range, motor driven with hand wheel for fine setting. Kargel Instruments Inc. 8123 Broadway, San Antonio 9, Texas	16,000
2	Stereoplotter, M-2, two projectors, 5 diameters magnification, 153 mm fixed focal length, 9X9" format with 840 mm pantograph	30,600

1	Rectangular Coordinate Plotter, Haag-Streit AG model 1200 mm X 1200 mm with luminous table and accessories	\$ 2,500
2	Electric calculators, 10-key board, "Friden"	2,000
2	Air Conditioning Units, 1- $\frac{1}{2}$ ton	600
2	Tracing Table, Stereoplotter Multiplex (Cat. 53-14-94 Bansch & Lomb, April 1960)	1,600
1	Tracing Table, Stereoplotter Kelsh	800
1	Frame, printing vacuum, Floor Mtg; open frame, steel, tilting; elevating, automatic vacuum controls; electric motor driven, AC, 115 v, Single phase, 60 cys; 60" long 48" wide plate size; MIL Spec F-3724, Type II	2,200
1	Lamp, wide spread area, double, 220 v, 45 amp, 60 cycle, w/transformer control moveable base, Spec L-3543, Type II	900
1	Printer Washer, photographic, stainless steel tank, Army Pacolux PB-240B	500
1	Dryer, Photographic print, EL-5(3) Model 26	660
	Total	<hr/> \$171,000

ADDITIONAL PERSONNEL

	<u>SALARY</u>	<u>MONTHLY TOTAL</u>	<u>ANNUAL TOTAL</u>
1. <u>Aerial Photography Section</u>			
Not considered necessary for this program.			
2. <u>Supplemental Map Control(Field Surveys)</u>			
a. <u>Horizontal</u>			
1. Supervisor	¢1300	¢1300	¢15,600
2. Observers, Electronic Measuring Instrument	1000	2000	24,000
1 Field Computer	850	850	10,200
			<u>¢49,800</u>
			Supplemental pay-by-law <u>4,150</u>
			Total Annual Salaries <u>¢53,950</u>
Per diem at ¢12 (Colones) per day and estimated at 200 days in the field per year.			
4 men X 200 days X ¢12 -			<u>9,600</u>
			Total Salaries and Per Diem <u>¢63,550</u>
b. <u>Vertical</u>			
It is not considered necessary to increase personnel in this phase.			
c. <u>Geophysical</u>			
Not considered necessary to increase present staff.			

	<u>SALARY</u>	<u>MONTHLY TOTAL</u>	<u>ANNUAL TOTAL</u>
3. <u>Field Classification</u>			
1 Chief, Classifier	¢950	¢950	¢11,400
1 Classifier	650	650	7,800
2 Drivers	400	400	9,600
			<hr/>
Sub-total			¢ 28,800
Supplemental Pay			2,400
Total Annual Salaries			<hr/> ¢ 31,200

Per diem at ¢12 (Colones per day and estimated at 200 days in the field per year.

4 men X 200 X ¢12 =	<hr/> 9,600
Total Salaries and per diem	¢ 40,800

4. Geodetic Computing Section - Office

2 Geodetic Computers	¢850	¢1700	¢ 20,400
1 Computer Aide	650	650	7,800
			<hr/>
Sub-Total			¢ 28,200
Supplemental pay			2,350
Total annual salaries			<hr/> ¢ 30,550

Temporary support of field operations, per diem at ¢12 (Colones) per day and estimated at 100 days total in the field for all computers

1 man X 100 days X ¢ 12 =	<hr/> ¢ 1,200
Total Salaries and Per Diem	¢ 31,750

	<u>SALARY</u>	<u>MONTHLY TOTAL</u>	<u>ANNUAL TOTAL</u>
5. <u>Photogrammetric Division</u>			
a. <u>Aerial Triangulation and Adjustment</u>			
1 Supervisor	¢ 1400	¢ 1400	¢ 16,800
2 Precision Instrument Operators	1200	2400	28,800
2 Adjustment Men	1200	2400	28,800
2 Instrument Operator -Aides	700	1400	16,800
			<u>¢ 91,200</u>
			Supplemental Pay 7,600
			<u>¢ 98,800</u>
b. <u>Stereo - Compilation</u>			
1 Materials and preparation man	¢ 1200	¢ 1200	¢ 14,400
3 Stereo-Instrument Compilers	950	2850	34,200
1 Draftsman	700	700	8,400
			<u>¢ 57,000</u>
			Supplemental Pay 4,750
			<u>¢ 61,750</u>
c. <u>Field Edit (Completion)</u>			
2 Editors	¢ 1000	¢ 2000	¢ 24,000
2 Drivers	400	800	9,600
			<u>¢ 33,600</u>
			Supplementary Pay 2,800
			<u>¢ 36,400</u>
Per diem at ¢12 (Colones) per day and estimated at 200 days in the field per year			
4 men X 200 days X ¢12 =			<u>9,600</u>
			<u>¢ 46,000</u>

	<u>SALARY</u>	<u>MONTHLY</u>	<u>ANNUAL</u>
		<u>TOTAL</u>	<u>TOTAL</u>
6. <u>Cartographic Drafting</u>			
1 Supervisor - Draftsman	¢1200	¢1200	¢14,400
3 Cartographic Draftsman (Scribing)	750	2250	27,000
2 Draftsman	500	1000	12,000
1 Coordinatograph Operator	750	750	9,000
			<hr/>
	Sub Total		¢62,400
	Supplemental Pay		5,200
	Total Annual Salaries		<hr/> ¢67,600
7. <u>Map Reproduction</u>			
a. <u>Camera and Press Room</u>			
Not considered necessary to increase present staffing.			
b. <u>Photo Lab</u>			
1 Operator (Rectifier-Enlarger)	¢ 900	¢ 900	¢10,800
2 Lab Assistants	500	1000	12,000
			<hr/>
	Sub Total		¢22,800
	Supplemental Pay		1,900
	Total Annual Salaries		<hr/> ¢24,700
8. <u>Administrative Services</u>			
1 Journeyman Mechanic (Auto)	¢ 700	¢ 700	¢ 8,400
2 Mechanic Helpers	500	1000	12,000
2 Secretaries	500	1000	12,000
2 Janitors	300	600	7,200
			<hr/>
	Sub-Total		¢ 39,600
	Supplemental Pay		3,300
	Total Annual Salaries		<hr/> ¢ 42,900

TOTAL SALARIES AND WAGES

Salaries	\$147,651
Per Diem	13,596
Wages of Temporary field Personnel	<u>18,753</u>
Total : US	<u><u>\$180,000</u></u>

VEHICLES AND MAINTENANCE

<u>Quantity</u>	<u>Item</u>	<u>Cost</u>
6	Jeeps at \$2,500 each	\$15,000
2	Power Wagons, 1 ton, \$3,500 ea.	7,000
	Maintenance of 6 jeeps for 3 years	3,000
	Maintenance of 2 power wagons for 3 years	2,000
2	Trailers for jeep at \$500.00 ea.	1,000
	Total	<u><u>US \$28,000</u></u>

(PETROLEUM-OIL-LUBRICANT)

1. Based on support of:

6 Jeeps

2 Power-Wagons

2. Estimated at 12,000 Km. (Average) a year per jeep,
6 X 12,000 = 72,000 Km. per year at 20 Km. per
Gal. = 3,600 Gals.
3. Estimated at 16,000 Km. (Average) a year per Power-Wagon,
2 X 16,000 = 32,000 Km. per year at 10 Km. per
Gal. = 3,200 Gals.
-
- Total Consumption per Year = 6,800 Gals.

4. Total gasoline consumption in three years will be
20,400 gallons at ϕ 3.00 (Colones) per gallon = 61,200

Total Cost: ϕ 61,200

U.S. \$ 9,245

5. Grease and oil estimated at ϕ 200.00 Colones per Jeep
per year and ϕ 233.33 Colones per Power Wagon per year,

6 Jeeps X ϕ 200 X 3 years = ϕ 3,600

2 Power Wagons X ϕ 233.33 X 3 yrs = ϕ 1,400 = ϕ 5,000
US \$ 755

TOTAL US \$10,000

OFFICE AND FIELD EQUIPMENT

<u>Quantity</u>	<u>Item</u>	<u>Cost</u>
3	Survey Instruments, Distance Measuring Electronic micro wave, 100 meters to 50 Kms. radio telephone headset, w/accessories, electro-type, model DM-20, or equal, Cubic Corporation @ \$6,200 unit	\$ 18,600
6	Battery, Nickel, Cadmium, 12 volts, Sonotone Corp. Federal Stock No. 6140-LOG A-0137	1,200
5	Tripods, Wild XX1b, or equal, extension, with metal cap for tripod head	375
3	Phychrometer, battery operated, Bendix, therometers in centigrade, w/accessories	225
1	Battery charger, 40 amp (for charging item 2 above in field)	200
4	Universal theodalite Wild T-2/ 360° with metal case, optical centering, built-in electrical wiring, with tripod	4,000
2	Traverse target set without tripods	800
	Miscellaneous field equipment: Cots, sleeping bags, compasses, hand levels, tapes, etc.	1,500
2	Electric calculators, Friden or equal, 10 key board	2,000
3	Trays, Processing Photographic, 4 in. deep, 31 in. long, 25 in. wide \$80.00 each (includes shipping)	240
	Miscellaneous Lab Equipment Trays, Safelights, Stove, Therometers, etc.	150
1	Endialsecator, Max.diam. of templets 32", scale 0.5 to 1.5, spotting microscope 4X, electricity illumination.	2,400

<u>Quantity</u>	<u>Item</u>	<u>Cost</u>
	Map file - 5 drawer Section, 53" X 41" X 15-3/4" per Section	
	1 Section Aerial Triangulation	
	1 Section Computing	
	1 Section Field Survey	
	3 Section Photogrammetry	
	4 Section Archives	
	3 Section Drafting	
	Total 18 Sections, @ \$200 ea	3,600
1	Air Conditioning Unit, 4 ton (for photogrammetric Compilation Section)	1,200
1	Printer, photographic contact, 30 X 30 cm. image size	750
30	Pocket Stereoscopes	300
4	Binoculars 7.5 X (2 Reconnaissance Engineers) (2 Tellurometer Parties) @ \$170 ea.	680
	Drafting Equipment	580
3	Typewriters (1 portable - 2 office)	750
1	Ozalid, Blue-line copying machine	2,850
1	Lens for photographic process copy camera	600
	TOTAL: US	<u>\$43,000</u>

OTHER COST

(Three (3) Years Period)

1. Field Survey Supplies (Expandable)	\$5,000
2. Photogrammetric Supplies	5,000
3. Cartographic Drafting Supplies	5,000
4. Map Reproduction Supplies	3,000
5. Maintenance - Office	1,000
6. Materials (Other than 1 - 4 above)	1,000
	<hr/>
Total:	US <u>\$20,000</u>

LOAN AUTHORIZATION

Provided from: Alliance for Progress Funds
COSTA RICA: Cadastral Survey

Pursuant to the authority vested in me as Deputy United States 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 I, Chapter 2, Title VI, Alliance for Progress, to the Government of Costa Rica (Borrower) of not to exceed one million six hundred thousand United States dollars (\$1,600,000) to assist in financing the costs of a Cadastral Survey, including tax and topographic mapping, and property appraisal (Project), 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 three-quarters of one ($3/4$ of 1) percent per annum during the grace period and two (2) percent per annum thereafter.
2. Other Terms and Conditions.
 - (a) Equipment, materials and services (except shipping which shall be procured from the United States, and marine insurance) financed under the loan shall be procured from the United States of America or the member countries of the Central American Common Market.
 - (b) United States dollars utilized under the loan to finance local costs shall be made available to the Borrower or its designee through appropriate procedures and shall be used only for procurement in the United States (excepting procurement of marine insurance).

- (c) Prior to first disbursement, Borrower shall make arrangements satisfactory to A.I.D. for the services of a consulting firm to provide technical supervision for the tax mapping and property appraisal portion of the Project, to certify progress payments, to assist in the development of appraisal standards and in the training of staff.
- (d) Prior to first disbursement, Borrower shall establish additional arrangements, satisfactory to A.I.D., with the Central American Bank for Economic Integration (CABEI) for CABEI to serve as regional technical advisor for the Project at a fee to be agreed upon between CABEI and Borrower, with the concurrence of A.I.D.
- (e) Borrower shall covenant to make available sufficient resources for the timely completion of the Project, including such resources as may be necessary to meet possible increases in the salaries of personnel employed on the Project.
- (f) The loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

Deputy United States Coordinator
Alliance for Progress

Date