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

CAPITAL ASSISTANCE PAPER

**Proposal and Recommendations
For the Review of the
Development Loan Committee**

NICARAGUA - Tax Improvement and Natural Resources
Inventory Loan

524-025

AID-DLC/P-356

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**A.I.D.
Reference Center
Room 1656 NS**

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

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AID-DLC/P-356
June 23, 1965

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Nicaragua - Tax Improvement and Natural Resources
Inventory Loan

Attached for your review are the recommendations for authorization of a loan in an amount not to exceed \$5,400,000 to the Government of Nicaragua to assist in financing the costs of the accelerated portion of Borrower's long-term real property tax improvement program and natural resources inventory surveys.

This loan proposal is scheduled for consideration by the Development Loan Staff Committee at its meeting on June 28, 1965.

Helen E. Nelson
Secretary
Development Loan Committee

Attachments:
Summary and Recommendations
Project Analysis
Annexes I-V

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NICARAGUA-TAX IMPROVEMENT AND NATURAL RESOURCES INVENTORY LOAN

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY AND RECOMMENDATIONS.....	1
SECTION I - DETAILED DESCRIPTION OF THE PROJECT.....	1
A. Borrower.....	1
B. History and Background.....	1
C. Country Team Comments.....	2
D. Alternate Source of Financing.....	3
E. Project Administration.....	3
F. Technical Analysis.....	4
1. General Description.....	4
2. Technical Plan.....	8
3. Plan for Implementation of the Technical Phases of the Program.....	10
4. Geology and Cartographic Buildings.....	10
5. Meteorological Building Sites-- Compliance with Section 611.....	11
6. Tax Objectives.....	11a
7. United States Government-Owned Property	11a
G. Economic Analysis.....	12
H. Financial Analysis.....	16
I. Adjustments to Original GON Loan Application.....	18
SECTION II - IMPLEMENTATION PLAN.....	23
SECTION III - IMPACT ON U. S. ECONOMY.....	25
SECTION IV - COVENANTS AND CONDITIONS.....	26
SECTION V - ISSUES.....	27
Annex I - Statutory Criteria	
Annex II - Detailed Description and Technical Plan	
Annex III - Program Charts, Tables and Exhibits	
Annex IV - Project Administration	
Annex V - Loan Authorization (draft)	

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AID-DLC/P-356
June 23, 1965

TAX IMPROVEMENT AND NATURAL RESOURCES INVENTORY LOAN

SUMMARY AND RECOMMENDATIONS

1. **BORROWER:** The Government of Nicaragua acting through the National Economic Council (for policy and direction) and the National Planning Office (for administrative and technical supervision).
2. **AMOUNT AND TERMS:** Up to \$5,400,000. Terms requested are a 40-year repayment period, including an initial 10-year grace period on amortization of principal, with interest to be paid at the rate of 1% during the grace period and 2 $\frac{1}{2}$ % thereafter.
3. **TOTAL COST OF PROJECT AND PROGRAM:** For purposes of this Loan Paper, the terms "Program," "Project," and "Activity," will be defined as follows: the "Program" is the GON's \$28 MM 10-year Integral Program of Evaluation and Utilization of National Resources and Management of the Real Property System; the "Project" is the 3-year accelerated portion of the Program composed of the activities which will be financed wholly or partially from the proceeds of the A.I.D. loan; and an "Activity" is any particular component of the Program such as the land use survey or ground water investigation.

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<u>Source of Funds</u>	<u>PROGRAM</u>		
	<u>Nat. Resources and Mapping</u>	<u>Tax Improvement</u>	<u>Total</u>
US AID Loan	\$ 3,900,000	\$ 1,500,000	\$ 5,400,000
ROCAP Grant (Aerial Photography)	30,000	30,000	60,000
IAGS	700,000	-	700,000
UN (FAO, WHO, ICAO)	300,000	-	300,000
German Grant	200,000	-	200,000
GON	3,000,000	700,000	3,700,000
Subtotal: Project	\$ 8,130,000	\$ 2,230,000	\$10,360,000
<u>UN Special Fund</u>			
UNSF * Hydrology	400,000		
** Agriculture	800,000		
Mineral Resources	700,000		
GON * Hydrology	500,000		
** Agriculture	500,000		
Mineral Resources	400,000		
CABEI * Loan Hydrology	300,000		
Subtotal: 3-Yr. Program	\$11,730,000	\$ 2,230,000	\$13,960,000
GON (Additional 7-Yr Budget)	\$ 9,500,000	\$ 3,200,000	\$12,700,000
IAGS (Est.)	\$ 1,000,000	-	\$ 1,000,000
UN (Est.)	\$ 300,000	-	\$ 300,000
TOTAL 10-YEAR PROGRAM	\$22,530,000	\$ 5,430,000	\$27,960,000

* This activity will cover all Nicaragua and will be financed entirely outside of the Project.

** This activity will cover certain areas of Nicaragua and will be financed outside the Project. Similar work in other areas of Nicaragua will be financed under the Project.

(Refer to Section I. H. 1. Financial Analysis for Project Cost Breakdown.)

A.I.D. loan proceeds will cover the Dollar costs of contract technical services of consultants and firms; procurement of U. S. equipment, materials and vehicles; and cost (56% of first year, 39% of second year, 20% of third year) of the Project as reflected in Annex III, Exhibits 4 and 9.

The ROCAP Grant provides appropriately aerial photography of the priority area of 35,000 square kilometers, on the Pacific slope. This is more than half completed and is expected to be completed during the flying season, November, 1965 - April, 1966 and is a basic tool of the program.

The yearly IAGS contribution of approximately \$235,000 covers salaries and field operations expenses of four military administrative personnel, four military personnel for operation of the aircraft, four civilian technicians and four local administrative personnel; the related costs of operating 19 vehicles, one airplane and one helicopter; and technical and administrative support of IAGS Headquarters/Panama. The IAGS assists the Nicaraguan Cartographic Agency in production of basic maps of the country.

The United Nations contribution covers the salaries of experts in soils, forestry, meteorology, hydrology and agriculture provided by FAO, ICAO and WHO to the Project.

The GON contribution will cover the costs of locally produced materials and equipment, European procurement of photogrammetric equipment not available in the United States or the Central American Common Market area; and, on a systematically ascending scale, the costs of new personnel as they become trained and are absorbed into the program.

The German Grant provides for \$154,000 of equipment for the exclusive use of Nicaragua and \$66,000 in services of a regional nature.

The UNSF Surface Hydrology Activity will have contributions from three sources: UNSF will cover Dollar costs of new equipment; GON will cover services in kind, i.e., personnel and related operations costs; and CABEI will cover part of the personnel costs and local currency costs of additional goods and services.

The UNSF Agricultural and Forest Resources Investigation Activity was initiated in January 1963 and is planned to continue in operation for four years. UNSF contribution is for Dollar costs of contract personnel and equipment; GON contribution is for services in kind for personnel and operational expenses.

The UNSF Mineral Resources Investigation Activity was initiated in November 1963 and, although originally planned for two and one-half years, will continue in operation until at least December 1966. UNSF contribution is for Dollar costs of contract personnel, equipment and contract aerial photography and aerial magnetometry; GON contribution is for services in kind for personnel and operational expenses.

The additional 7-year estimated budget for the GON will be used to finance personnel, maintenance and other costs. A detailed breakdown is shown in Annex III, Exhibit No. 6.

The estimated additional IAGS costs for the seven-year period following the three-year period of the loan contemplates the phasing-out of assistance once the basic mapping has been finished.

The estimated additional UN costs is based on projected FAO assistance in the fields of agricultural extension and agrarian reform project implementation.

4. DESCRIPTION OF PROJECT AND RELATIONSHIP TO PROGRAM: This Project comprises an accelerated three-year portion of the integrated ten-year Program of evaluation and utilization of natural resources and improvement in the real property tax system. The proposed loan will cover 39% of the total cost of the 3-year Program and 52% of the 3-year Project.

It is estimated that completion of the total Program will require 10 years, with the last 7 years being financed substantially by GON funds. The full 10-year program will cost \$28 million, 19% of which will be covered by the proposed loan.

The Project has as its basic aim the increasing of government revenues so as to help finance the Country's economic development. The Project also proposes to identify natural resources so that exploitation can be accelerated and again contribute to the country's economic development.

Property taxation is structurally and administratively rudimentary in Nicaragua. A major purpose of the loan activity is to assist the GON to realize the potential income yields and other benefits of a modern property tax. Thus, the loan activity will develop a mass appraisal and property identification capability. The major administrative obstacle to the enforcement of a property tax today is the lack of appraisals and an up-to-date inventory of land ownership. The loan activity will also assist in the creation of a tax administration-collection capability. The management and organization of the collection and enforcement functions are now very weak. Property tax legislation is also primitive. As a condition to disbursements under the loan (other than initial starting-up and study costs), the GON will be required to adopt legislation which eliminates statutory obstacles to the enforcement of a modern property tax and substitutes measures which make efficient enforcement possible. The GON will also covenant to revise the present effective rate structure upwards, within the next few years, after an effective administrative capability for enforcing the tax has been created.

The planned utilization of the natural resources data will assure project and program development needed for economic growth.

GON institutions will be strengthened by the creation of a cadre of equipped and trained professional and technical personnel able to carry on the Program.

5. BACKGROUND OF PROGRAM: Following a meeting of all the Ministers of Economy in Central America and Panama a broad plan for cadastral surveys and natural resources inventories was presented, a policy statement for a regional program for the "Evaluation and Utilization of Natural Resources and Improvement of Real Property Tax Systems" was developed by representatives of A.I.D. and CABEI. The program was proposed to the GON and specific technical and financing requirements were determined with the assistance of technical personnel from A.I.D., CABEI, OAS, FAO, WHO, IAGS and the Corps of Engineers.

A Collett and Clapp report was prepared. This report surveyed the present real property tax system in Nicaragua and suggested a comprehensive modernization program which was endorsed by the Internal Revenue Service. The goal and activities of this program are consistent with the recommendations of Collett and Clapp.

On February 11, 1965, a committee from LA/CD commented on the "Field Draft" of this CAP. As a result of these comments the Natural Resources Division of the Inter-American Geodetic Survey (NRD) was asked to review the Natural Resources portion of this loan project. From March 22, 1965, forward, this interdisciplinary team of seven experts has provided continuous advice and assistance to the project and their suggestions and recommendations are herein incorporated.

6. ALTERNATE FINANCING: The Export-Import Bank advised on and the IDB advised informally that they are not interested in financing this project. It is the opinion of this Capital Assistance Committee that financing suitable for this project is available in the Free World only from A.I.D.
7. COUNTRY TEAM: The Country Team gives this project top priority because of its importance to the National Development Planning, Tax Reform, Rural Development and other goals of the Country Assistance Plan.
8. STATUTORY CRITERIA: All statutory criteria have been or will be met.
9. ISSUES: The issue of A.I.D. financing of local cost is discussed in the paper.
10. RECOMMENDATIONS: Authorization of a loan to the GON for an amount not to exceed \$5,400,000, subject to the terms and conditions below:
 - A. Terms:
 1. Term of Loan: 40 years, including an initial 10-year grace period on amortization of principal.

2. Interest: 1% annually on the outstanding balance during the grace period, and 2 $\frac{1}{2}$ % thereafter.

3. Currency of Payment: U. S. Dollars.

B. Conditions:

- (a) Equipment, materials and services (except shipping and marine insurance) financed under the loan shall have their origin in and be procured from the United States or member countries of the Central American Common Market. Shipping financed under the loan shall be procured from the United States, and marine insurance finance under the loan shall be placed in the United States with a company authorized to do marine insurance business in any state of the United States.
- (b) United States dollars utilized under the loan to finance local currency costs shall be made available to Borrower or its designee through appropriate procedures and shall be used only for procurement in the United States.
- (c) Prior to any disbursement, Borrower shall designate an appropriate agency of Borrower to have exclusive responsibility for land appraisal.
- (d) The following shall be conditions precedent to any disbursement for other than (i) consulting services for the detailed work plan for carrying out the Project and (ii) engineering plans and specifications for the geology and cartographic buildings:
 - (1) Adoption of legislation providing that the title holder is responsible for paying on a withholding basis the entire tax on the full value of the property held in his name.
 - (2) Adoption of legislation providing for in rem enforcement of property taxes and establishment of an organizational framework satisfactory to A.I.D. to enforce such legislation.

- (e) Borrower shall adopt within a reasonable time legislation incorporating into law appraisal standards based on the recommendations set forth in the appraisal manual developed pursuant to the Project.
- (f) After a reasonable amount of land has been appraised pursuant to the Project, Borrower shall initiate proposed legislation with respect to revising the rate structure for real property taxation.
- (g) Borrower will use its best efforts to assure that the physical data produced pursuant to the Project will be combined with present and future economic and sociological data in a form that is well adapted to use for projects.
- (h) The loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

CAPITAL ASSISTANCE COMMITTEE

LOAN OFFICER : Kenneth W. Davidson, US AID/N
: Norman Cohen, LA/CD

DESK OFFICER : Anthony Albrecht / Carter Collins

COUNSEL : Peter Hornbostel, LA/GC
: William Skidmore, ROCAP/RLA

ENGINEER : Karl Kohler, LA/ENGR
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TAX ADVISORS : Cecil Morgan/ROCAP
: Jack Heller, AID/W
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: Leon Laitman, IAGS/NRD

US AID/NICARAGUA : Charles B. Johnson, Program Officer
: Norbert F. Kockler, Public Adminis-
tration Officer

DIRECTOR-US AID/N : W. Bailey Pace

TAX IMPROVEMENT AND NATURAL RESOURCES INVENTORY LOAN

SECTION I - DETAILED DESCRIPTION OF THE PROJECT

A. Borrower

The Government of Nicaragua acting through the National Economic Council (for policy and direction) and the National Planning Office (for administrative and technical supervision).

B. History and Background

In May, 1962, SIECA brought together the Cartographic Directors of Central America to formulate a regional cadastral program. A second regional meeting of Cartographic Directors was convened in November, 1962, and each Member Country was invited to submit an individual loan application.

In April, 1963, a broad plan for cadastral surveys and natural resources inventories was presented and approved by the Central America and Panama Ministers of Economy and in May, 1963, a revised set of loan criteria for a "Program of Investigation and Utilization of Natural Resources and Improvement of Real Property Tax Systems" was issued. Essentially the criteria called for a three-pronged approach: (1) installation of modern real property tax systems to increase government revenues; (2) an inventory of natural resources; and (3) mapping to support the first two objectives.

To assist in the development of loan applications, CABEI sent experts throughout Central America, and representatives from CABEI and ROCAP made a series of follow-up visits. Assistance was also provided by OAS, IAGS, US AID and AID/W.

In the real property tax area, US AID/Nicaragua contracted with Collett and Clapp to study the present system and recommended a comprehensive modernization program. The Collett and Clapp report was endorsed by the Internal Revenue Service (See Supplementary Documents for details). A Property Tax Specialist recruited by IRS arrived in Managua on January 23, 1965, and has reviewed and recommended changes reflected herein.

The IRR for this CAP was forwarded to AID/W on June 5, 1964, and the GON application was put under intensive review August 25, 1964.

On February 11, 1965, a committee from LA/CD commented on the "Field Draft" of this CAP. As a result of this review the Natural Resources Division of the Inter-American Geodetic Survey (NRD) was asked to review the Natural Resources portion of this loan project (See Supplementary Documents - Natural Resource Aspects - for details). From March 22, 1965, forward, this interdisciplinary team of seven experts has provided continuous advice and assistance to the project and their suggestions and recommendations are herein incorporated.

Other changes recommended from time to time by LA/CD are also reflected in this paper. (See Supplementary Documents - "Taxation Aspects" - for details.)

C. Country Team Comments

The Mission Executive Loan Committee has reviewed this project and:

- (1) concur with the NEC of the GON that it is of highest priority in the development plans of the country;
- (2) considers it to be of highest priority within the Alliance for Progress, Regional and US AID programs;
- (3) believes it to be eligible for A.I.D. financing.

D. Alternate Sources of Financing

The Export-Import Bank advised A.I.D. on _____ that it was not interested in financing this Project. IDP advised informally of a similar position.

E. Project Administration (Refer to Annex IV - "Project Administration" for details and organization chart)

1. Primary Responsibility for this project will be vested in the National Economic Council (NEC) of the GON, which will provide the over-all policy and direction. The Director of the National Planning Office (NPO), which is the Technical Secretariat and executing agency of the National Economic Council, will provide the continuing administrative and technical supervision required.

2. Project Execution. The NPO will employ an Executive Director, acceptable to the NEC and A.I.D., who will administer the project. The Director will be provided with a clear statement of the functions of his office and a job description clearly outlining his responsibilities and duties. He will administer the project under the general direction of the NEC and the general supervision of the NPO, but with full authority to execute and carry out the project within the general guidelines set forth by superior authority.

3. Activity Execution. Activities requiring coordination between the collectors and users of the data gathered will be carried out by the "Integrated Natural Resources Group" under the immediate direction of the Executive Director. Other complementary activities will be carried out by the specific agency involved, under the general direction of the Executive Director.

4. Administrative and Technical Assistance. The Executive Director will be provided with an "Executive Advisory Group," financed out of the loan, to assist with the management administration and supervision of the project operations. It is estimated that a consulting firm will be contracted to furnish a team of three men, a U. S. engineering senior representative, a local engineer and a U. S. fiscal control officer--the first two men for the full period of project operations and the fiscal officer during the period of procurement and the establishment of the project fiscal operating procedures. Additional specialized personnel will be furnished during the preparation of the detailed work plan and if needed for specific problems during the operating period.

CABEI will act as the technical agent to assure regional comparability of data.

Collaborating international and national agencies such as WMO, FAO, A.I.D., IAGS, IRS, etc. will provide advice to specific GON agencies implementing individual project activities and will be available for consultation by the Executive Director's office.

The "Contract Consultants' Group" will provide specific technical operational and training assistance to the GON implementing agencies. Contractors will be hired as needed from project funds and assigned to GON agencies to carry out project activities.

F. Technical Analysis

1. General Description

a. History

The Loan Project was initiated by a team of U. S. Consultants provided by the Central American Bank and through the US AID Mission in Nicaragua. The Loan Application and a separate Collett and Clapp study of the Real Property Tax Appraisal Assessment Programs describe the original project and are included as supplements to this Loan Paper.

Reviews have since been made of these studies and are being submitted as supplemental documents.

- (1) The Integrated Natural Resources Program.
- (2) The Evaluation of the Real Property Tax Program.

b. Present Nicaraguan Capability

The original loan application was reviewed to determine the availability of personnel needed to carry on the natural resources work. Government agencies involved were contacted and it was found that a sufficient number of technically competent persons can be made available to help plan and implement the present three-year project and over-all program. The GON has indicated its intention to provide the personnel required (See Annex III, Exhibit 14) and a training program including on-the-job training will be incorporated in the plan of operation.

c. General Description of Program

Nicaragua requires maps and basic data in order to identify and develop its natural resources, improve its rural property tax system and clarify its land tenure problems.

The present project proposes to collect and analyze specific data in all resource fields and make it available for rural and industrial development projects and programs.

The project will locate and determine property boundaries, establish equitable property values and install a modern assessment system. Until recently the process of property declarations has been slow and complicated so that of a total estimated 200,000 plus properties in all categories, approximately 40,000 have been declared.

The project will conduct natural resources and property tax studies over 35,000 square kilometers of the Pacific area including the most densely populated departments of Nicaragua such as Managua, Matagalpa, Leon, Chinandega and Masaya. These departments at present concentrate 91 percent of the population and the greatest agricultural and industrial activity. (See Map - Annex No. III, Exhibit 1.)

The program will utilize data being produced by two United Nations Special Fund projects; one a mineral resources project in two specific areas of high mineral potential, and another in vegetation and forestry in a 15,000 square kilometers area in the northeastern section of the country. Another United Nations Special Fund project to set up a long-range program to gather basic information for surface hydrology has been proposed by Nicaragua but has not been approved as yet by the United Nations. If this latter project is approved, it will be coordinated with the Loan Program. (Refer to Map in Annex III, Exhibit 1, for the first two UNSF projects mentioned.)

Aerial photographs at 1:20,000 scale are now available for 18,000 square kilometers of the total 35,000 Km² at the Cartographic Agency, so that there need be no delay in starting the first-year project studies. Additional photography to cover the rest of the Pacific region has been contracted for and will be undertaken as of November 1965. Topographic maps at 1:50,000 scale with 20 meter contour lines are now available for the entire 35,000 square kilometers area. Basic topographic mapping will be extended under the IAGS mapping program to 40,000 Km² of the country and large scale mapping will be provided for the priority area as a strong support to real property tax assessment and natural resources inventory programs.

d. Project Contributions

The proposed project when completed will supply the GON with the following:

- (1) Cadastral index of real properties of public and private ownership.
- (2) Land capability classification maps that can provide a more equitable basis for rural land evaluation as required for fiscal purposes.
- (3) A basis for systems for the taxation, sale and distribution of rural land.
- (4) Land capability and present land use maps for rural development, allowing for the choice of areas of cultivation, the establishment of cropping patterns and rotation, choice of permanent crop and pastures.
- (5) A collection of data and reports including maps, photographs, and punch cards for use in the identification and evaluation of land tenure, agricultural and industrial projects.

- (6) Local personnel capable of planning and implementing resources survey projects and maintaining a permanent cadastre and tax system. Annex II and Supplement contain the Detailed Technical Description of the Project program.

(A detailed technical description of the project is shown in Annex II and general aspects of the Natural Resources and Tax Programs are available in two attached supplements.)

e. The following is the estimated cost breakdown, by cost component for the Natural Resources Evaluation and Cadastral Survey Program (in U.S. \$ equivalents):

<u>Source of Funds</u>	<u>U.S. \$</u>	<u>Cordobas</u>	<u>Total</u>
A.I.D. Loan	\$ 2,473,486	\$ 2,898,293	\$ 5,371,779
ROCAP Grant	60,000		60,000
IAGS	700,000		700,000
UN (FAO, WHO, IGAO)	310,000		310,000
GON		3,749,068	3,749,068
German Grant		220,000	220,000
Loan Project Sub-Total	\$ 3,543,486	\$ 6,867,361	\$10,410,847
UN Special Fund	1,866,748		1,866,748
GON Contribution to UNSF Proj.		1,454,763	1,454,763
CABEI Loan UNSF Proj.		263,843	263,843
3-Year Program Sub-Total	\$ 5,410,234	\$ 8,585,964	\$13,996,198
GON 7-Year Add. Budget		12,655,965	
IAGS " " "	1,000,000		
UN " " "	300,000		
10-Year Program TOTAL	\$ 6,710,234	\$21,241,929	\$27,952,163

f. Technical and Engineering Service

The General Specifications are being prepared and will require a broad range of trained manpower, including photo interpreters, geologists, hydrometeorologist soil scientists, economists, photogrammetrists. Priority will be given to the training of Nicaraguan personnel who have the prerequisite experience and skill. Work of the Nicaraguan Agencies will be conducted under the responsible Agency, the National Economic Council, so as to place primary emphasis on the present project. Where required professional skills are not available in Nicaragua, arrangements will be made with qualified and approved U. S. consultants and specialists (See Annex III, Exhibit 4, for numbers of both foreign and national technicians and other personnel, which will be required during the several phases of the Program).

2. Technical Plan

a. Technical Feasibility

This program conforms to the policy statement developed by members of AID/W., ROCAP, SIECA and the Central American Bank on May 3, 1963. The policy statement describes the criteria for the "Central American Program for the Evaluation and Utilization of Natural Resources and for the Improvements of Real Property Tax Systems."

In preparing its Loan Application to conform with the CABEI-A.I.D. criteria, the GON received advice and assistance from a group of technicians drawn from the OAS, FAO, World Meteorological Organization, CABEI, ROCAP, U. S. Army Corps of Engineers, and IAGS.

A Collett and Clapp report on property tax administration in Nicaragua was prepared under an A.I.D. contract in 1963. This report surveyed the present real property tax system in Nicaragua and suggested a program of modernization which was endorsed by the Internal Revenue Service. It is the intention of the GON to put this property tax program into effect and to utilize the advisory services of consultants needed to assure its successful implementation. In like manner, it is the intention of the GON to draw on outside consulting sources as needed for technical assistance in the Natural Resources and Mapping portions of the program.

The over-all Program appears to be technically feasible. The GON either has sufficient technical capacity to execute, operate, and maintain the activity, will utilize already available technical assistance from cooperating agencies, or will use its resources and the Loan Funds to procure the other necessary assistance.

Annex III, Exhibit 4, lists the estimated number of local technicians who will be receiving on-the-job training in the Project and will be the permanent personnel carrying out the Program.

b. Economic Feasibility

The GON estimates that successful implementation of the property tax component of this program would lead to increased tax revenues of over four million dollars annually: The Collett and Clapp report on the subject consider this figure conservative. This is estimated to be about a 10% increase over the current GON annual total revenue, and would be very helpful in meeting the demands of the GON Budget, which is increasing partially because of extraordinary expenses on capital investments and the costs of development programs such as this one.

While economic benefits to accrue from the natural resources and mapping components may be less immediate, apparent, and spectacular, they will nonetheless be impressive. The Program will produce a foundation of evaluated natural resource information for development activities and projects that can be financed in the future by local or foreign capital. During the term of the Project the Nicaraguan agencies will objectively develop administrative, organizational, technical, and financial competence that would enable them to continue to the completion of the program. Preliminary activity cost estimates were checked by the various consultants and technicians involved and found to be reasonable. In all cases where loan funds are to partially support the increased cost of additional staffing necessary to carry out the project, loan-financed salaries are in line with current Nicaraguan wage and salary scales (see Annex III, Exhibit 4). Where loan funds are used to partially support these personnel and local operations costs the amount of A.I.D. loan funds so employed is phased out within three years. (See Annex III, Exhibit 9)

The GON Contribution increases gradually during the term of the Project to the point of assuming all costs (See Annex III, Exhibit 9), so that the Program continues to function at the accelerated rate without further foreign assistance. It is considered that sufficient planning has been done to assure the technical feasibility of the Project and that a reasonably firm estimate of cost of the Project to the United States is available, thus meeting the requirements of FAA Section 611.

3. Plan for Implementation of the Technical Phases of the Program

The Executive Director will have an advisory staff of consultants and operating technicians to assist him with the administration and technical supervision of the Project. The first step in project implementation will be the preparation of a detailed work plan by the Executive Director's office which will establish the operation program for the project.

Consultant services required for the real property appraisal, geology, soils and vegetation, land use, climatology, Potable ground water, surface water and administration will be contracted for by negotiation. It is estimated that about fourteen natural resource specialists and four property appraisal specialists will be retained for these services. This will involve two or more contracts for such services.

4. Geology and Cartographic Buildings

Preliminary plans and cost estimates have been completed covering the Geological Institute and Cartographic Agency buildings. Engineering services will be provided by engineering consultants to be engaged by the Executive Director of the Program. Their work will include the final design and specifications for the Geological Institute building and the Cartographic Agency building, the preparation of bidding documents, supervision of bidding procedures, inspection on construction, and certification of progress and payment requests.

Construction of these two buildings will be by A.I.D.-approved contractor(s) under A.I.D.-approved contract(s) arrived at through A.I.D.-approved bidding procedures. Bidding will be open to qualified United States and Central American Common Market firms.

5. Meteorological Building Sites - Compliance with Section 611

The sites for construction of the six meteorological observation sites have not yet been defined exactly, although the general area for each has been selected. In view of the ease with which a suitable location on GON land can be selected for each of these designed small structures, the simple design and construction requirements, the low unit cost, and the disproportionate expense to the GON of firms selections and subsurface investigations prior to construction, the ROCAP Regional Engineering Office considers that FAA Section 611 is met for this activity without the precise selection of each observation post site at this time. Evidence of site selections satisfactory to A.I.D. will be submitted to A.I.D. prior to the signing of any contract for loan-financed construction of these meteorological posts.

In view of the low-unit-costs estimated for the construction of the six meteorological observation posts (four at \$1,430 each and two at \$2,715 each), the Borrower intends to request a waiver of A.I.D.-required bidding procedures, with the negotiated contract, scope of work, and contractor subject to A.I.D. approval. It is the opinion of the ROCAP Regional Engineering Office that this waiver is justified.

A preliminary Operations Schedule is contained in Annex III, Exhibit 1; the Construction Schedule for the two major buildings is contained in Annex III, Exhibit 10 and 11; and an over-all estimated Disbursement Schedule of Loan funds, showing disbursement for engineering, construction, and consultant costs, is attached as Annex III, Exhibit 7.

The technical requirements of Section 611 of the FAA of 1962, as amended, are considered to have been met for this Project.

6. Tax Objectives

Property taxation is structurally and administratively rudimentary in Nicaragua. A major purpose of the loan activity is to assist the GON to realize the potential income yields and other benefits of a modern property tax. Thus, the loan activity will develop a mass appraisal and property identification capability. The major administrative obstacle to the enforcement of a property tax today is the lack of appraisals and an up-to-date inventory of land ownership. The loan activity will also assist in the creation of a tax administration-collection capability. The management and organization of the collection and enforcement functions are now very weak. Property tax legislation is also primitive. As a condition to disbursements under the loan (other than initial starting-up and study costs), the GON will be required to adopt legislation which eliminates statutory obstacles to the enforcement of a modern property tax and substitutes measures which make efficient enforcement possible. The GON will also covenant to revise the present effective rate structure upwards, within the next few years, after an effective administrative capability for enforcing the tax has been created.

7. United States Government-Owned Property.

The Borrower shall utilize such United States Government-Owned Excess Property as may be consistent with the requirements of the project and as may be available within a reasonable period of time. Prior to the procurement of any new tools, equipment or materials financed by A.I.D. under this loan, the Borrower shall indicate in writing to A.I.D. either that such tools, equipment and materials are not available from A.I.D.'s stocks of United States Government-Owned Excess Property on a timely basis or that the tools, equipment or materials which may be available are not technically suitable for use in the project.

G. Economic Analysis1. The Economy

Nicaragua is the largest of the Central American countries. The bulk of its population is located along the western slopes of the highlands and in the Nicaragua depression while its Atlantic coastal region remains sparsely populated and the least developed part of the country, mostly because of the unhealthy living conditions of the region.

Nicaragua trails its neighbors in total gross national product, which increased by more than 9 percent annually in the early fifties, but later tapered off to a 1 percent increase per year. In 1961 and 1962, economic growth again accelerated to the earlier rate and 1963 was a banner year, with foreign reserves increasing by about 85 percent. Reserves stood at slightly over \$41.3 million on December 31, 1964.

NICARAGUA: Economic Indicators

	<u>1956</u>	<u>1958</u>	<u>1960</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>
Population - thousands	1,288	1,378	1,477	1,578	1,529	1,586
Gross domestic prod. - millions of dollars	281	310	337	402	429	463
Per capita GDP - dollars	218	225	233	262	279	292
Cost of living - 1958:100	99	100	95	96	96	100
Foreign trade - millions \$						
Imports	68.8	77.9	71.7	97.5	107.0	109.1
Exports	57.8	63.8	56.0	82.5	115.0	124.0
Cotton	23.6	24.9	14.7	31.3	46.3	51.4
Coffee	23.2	24.2	19.2	15.4	18.5	21.3
Gold & Foreign Exchange - millions of dollars	7.0	7.6	8.9	17.2	31.8	42.1
Cotton fabric prod.mil. meters	5.0	6.6	9.7	10.4		
Electricity output-mil.kWh	119	143	184	200	220	
Agricultural prod.1953-55:100	121	128	121	165	186	226

Area:57,1 thousand square miles.

Agriculture, which accounts for about 40 percent of the gross domestic product, is concentrated on the Pacific slopes and plains. Here cotton output is rapidly increasing as modern production methods are put into operation, making Nicaragua Central America's leading cotton grower. A growing textile industry has doubled local demand for cotton since 1955. Coffee is also important to Nicaragua, and the world-wide drop in coffee prices has affected its foreign exchange earnings. Nicaragua has taken advantage of the trend to the consumption of soluble coffee by establishing a processing plant which sells mainly to the U. S. market. Not a large banana producer, this country is, nevertheless, trying banana cultivation on the Pacific coast, and output is rising. Cattle are being raised on an increasing scale, and shipments of frozen beef to the United States are mounting.

Transportation and power are still inadequate for Nicaragua's needs. Railroads total only some 215 miles in length and do not connect with any international lines. Highway transportation has been improving but considerably more investment in this sector will be required. Installed capacity of Nicaragua's electric power plants totaled about 75,000 kW in 1961. Only the region in the vicinity of Managua is adequately supplied for present needs and new industries must supply their own power. However, a new hydroelectric plant of 50,000 kW capacity is presently being installed with the help of A.I.D. financing. 25,000 kW was put on the line in December, 1964, and the other 25,000 kW was added in March, 1965. Industry is still in its infancy and is centered around the processing of food and beverages. Clothing and textiles are of growing importance, as are wood and cement. Developing industries include cotton ginning and vegetable oil, meat processing and chemicals.

Nicaragua's economic progress has been handicapped since 1957 by the decline in commodity prices, but the steady diversification of export production has softened the impact. Export earnings faltered in 1960 and 1961, but 1962 saw a dramatic recovery, with cotton shipments at record levels. Good economic conditions have continued through 1963 and 1964. Coffee prices are strengthening, and Nicaragua expects no difficulty in disposing of all production. Exports of soluble coffee has grown, shrimp and beef exports are gaining and sugar is now being processed here in one of the largest sugar refineries in Central America. Local refining of gasoline and milling of flour and oats have also begun. Other production

activities in the planning stage include the manufacture of caustic soda and insecticides, formica, naval stores, refined salt, dried mill, and the development of wood and paper from the northern rain forest. Sears Roebuck plans to establish a retail outlet in Managua in June, 1965, the Curacao Trading Company has been granted permission to operate in Nicaragua and several hotel projects appear to be nearing the construction start up stage.

Until 1963 imports tended to grow more rapidly than exports and trade deficits were rising. Measure to protect the country's foreign exchange reserves, taken in connection with stand-by arrangements with the International Monetary Fund, have been successful and reserves are at their highest level in recent years.

Nicaragua enjoys considerable capacity to absorb further foreign debt (debt service is 5.5% of export earnings) but its high reserves should not be interpreted to indicate that historic balance of payments problems have been solved. A sharp drop in the world price of cotton could quickly wipe out the gains of 1963 and 1964. Potential import on the balance of payments should, therefore, continue to be a consideration when determining terms on lending to Nicaragua.

2. Relation of Project to US AID/Nicaragua Program

This Project will produce information necessary for Nicaragua to achieve better utilization of its public lands, provide the base for an effective real property tax system, increase agricultural productivity in the rural areas, and serve as a stimulus to private investment. The over-all plan supports GON, UN, A.I.D. and other international efforts to increase economic growth by identifying and improving living standards.

The transmittal letter covering original submission of this project by the GON to CABEI, in January, 1964, contained the following statement: "The National Economic Council has assigned to the Integral Program for Evaluation and Utilization of Natural Resources and Improvement of Real Property Tax Systems the highest and most preferential priority, considering that it comprises an essential and basic program to enable planning related to natural resources and to mobilize and channelize additional national funds that will contribute to financing the implementation of the Five-Year (1965-1969) Economic and Social Development Plan under preparation, including those aspects that concern utilization of natural resources."

This Project will produce a survey and an inventory of natural resources necessary for determining land and resource capability, valuation, location, and development potential and feasibility essential to the country's growth. This project supports GON efforts to carry out a meaningful development program, contains the element of self-help, and is fully consistent with the goals of the Charter of Punta del Este.

This integrated cadastral-natural resources project is consistent with Mission FY-1966 goals:

1. Goal No. 1 calls for national planning, governmental policies and tax reform.
2. Under Goal No. 2 - Rural Development - data developed through the project will provide a solid base for this program.
3. Under Goal No. 3 - Industrial Expansion - the knowledge to be gained by the studies under the project is considered to be basic to industrial development, to identify areas of potential investment.
4. Goal No. 4 - Human Resources Development - will be carried forward as local personnel will be trained to implement the studies.

H. Financial Analysis

1. Financial Plan

TOTAL COST OF PROJECT AND PROGRAM
(in U.S.\$ Equivalents)

Source of Funds	US\$	CORDOBAS	TOTAL
A.I.D. Loan	\$2,473,486	\$ 2,898,293	\$ 5,371,779
GON		3,749,068	3,749,068
Other Sources	1,070,000	220,000	1,290,000
SUB-TOTAL LOAN PROJECT	\$3,543,486	\$ 6,867,361	\$10,410,847
GON Contribution to UNSF Project		\$ 1,718,603	\$ 1,718,603
UNSF	\$1,866,748		1,866,748
SUB-TOTAL 3-YEAR PROGRAM	\$5,410,234	\$ 8,585,964	\$13,996,198
GON 7-year add. Budget		\$12,655,965	\$12,655,965
Other " " "	\$1,300,000		1,300,000
TOTAL 10-YEAR PROGRAM.....	\$6,710,234	\$21,241,929	\$27,952,163

TOTAL GON CONTRIBUTION (US\$ Equivalents)

Total GON Contribution to Loan Project	-	\$3,744,355
Total GON Contribution to 3-Year Program	-	\$5,467,671
Total GON Contribution to 10-Year Program	-	\$18,123,636

The procurement of goods and services to be financed under this loan will be supervised by the National Planning Office. An organization chart describing the Program administrative structure to be employed is appended as Annex IV; Page 3a.

The technical assistance CABEI will furnish to the NPO to assure regional comparability of data and to keep abreast of project progress will be financed by the GON, similarly to the procedure used in the Costa Rica Cadastral Project.

A.I.D. loan funds will cover the Dollar costs of contract technical services of consultants and firms satisfactory to A.I.D. and procurement of U. S. equipment, materials and vehicles required for all phases of the program. Cordobas provided by the loan will pay for office and field operational costs and salaries and local construction materials and labor. The GON and cooperating agencies' contributions will cover the local costs of salaries and operational expenses, except for that of the UNSF, which is paying the dollar costs of equipment and engineering services for the two project areas in which it is involved. Annex III, Exhibits 6 and 7 contain detailed cost estimate analyses for each Project Activity.

Requests for the first disbursement of loan funds for the employment of the consulting advisors may be expected promptly following execution of the Loan Agreement and satisfaction of Conditions Precedent. Following the approval of the detailed work plan by A.I.D. procurement can be initialed for the eight activities. All agencies involved have ready tentative lists of proposed commodity procurement and engineering firms have already been selected--subject to A.I.D. approval--to complete the final design and specifications for the proposed construction of buildings. Full disbursement of the loan is expected within 40 months following satisfaction of Conditions Precedent to first disbursement. (See Annex III, Exhibits 5, 6 and 7 for additional cost details.)

2. Prospects of Repayment

This loan will be an obligation of the Government of Nicaragua. It is the opinion of this Capital Assistance Committee that based on Nicaragua's past record of repayments and present debt service ability there are reasonable prospects of repayment.

3. Terms

The project committee recommends that the loan terms be as follows:

Amortization: 40 years, including a 10-year grace period.

Interest: 1% during grace and 2 1/2% thereafter.

I. Adjustments to Original GON Loan Application

The original GON loan application has been reviewed in detail and several adjustments, both major and minor in nature, were found to be needed. Among the major revisions is a revamping of the natural resources disciplines so as to unit complementary competencies, increase productivity and to provide the needed link between the inventory of data and the final users of the data. A serious lack of foreign consultant advisors was discovered as well as the lack of emphasis of some parts of various disciplines.

Other major revisions include elimination of the Electronic Data Processing Center, addition of contract personnel in lieu of Internal Revenue Service personnel as advisors to the Real Property Tax Improvement Activity as well as inclusion of additional personnel to process the data, addition of analysis of surface water and meteorological data previously not taken into account and the elimination of European equipment from the A.I.D. loan. The GON will obtain this equipment with their own funds. In detail, the Capital Assistance Paper contains the following adjustments to the original GON loan application to CABEI.

1. Improvement of Real Property Tax System

a. Substituting the IRS assistance originally proposed, 64 man-months of contract consultant assistance was added, total cost of which is estimated at \$160,000.

b. A detailed review of the Activity by the IRS personnel advisors to the A.I.D. Mission demonstrated the need to add personnel in handling property titles with a resultant added A.I.D. loan cost of \$95,485. In like manner, additional minor equipment of \$15,286 and materials of \$1,500 were added.

2. Geology

a. A detailed review of the over-all natural resources activities indicated the need to center all basic underground water investigations within the Geological Institute. The establishment of this discipline under Geology caused some reduction of costs in the potable ground water activity and will certainly cause reduction in costs of contracting test wells for irrigation ground water although the saving to the latter could not be estimated at this time. It was found necessary to add \$9,429 in personnel costs, \$6,286 in equipment, \$6,000 in operational funds and 24 man-months of contract consulting service estimated at \$60,000.

b. Several items originally requested in the Loan Application were deleted as they were questionable as items appropriate for A.I.D. financing under the project. These items are:

1. Five (5) scholarships for Geology studies in the United States, four years each, \$72,000.
2. Attendance to Geology Congresses (three technicians/yr., three years, \$6,600.
3. Visit of Director, National Geological Service to the U. S. Geological Survey for three months, \$4,000.
4. Acquisition of technical magazines, \$3,000.
5. Subscription to technical magazines, \$1,000.

Total deleted: \$86,600.

c. The amount of funds originally estimated for consulting personnel was increased \$39,000 to conform to a standard estimate of \$30,000 per consultant year for consultants obtained through a consortium of specialized firms.

3. Soils and Vegetation

- a. A detailed review of the activity demonstrated that personnel envisioned to carry out the proposed work would be completely inadequate to accomplish the task. Seven local personnel had to be added in the fields of pasture agronomy and land use for a total A.I.D. loan cost of \$65,143 and contract consultants increased 36 man-months at a total estimated cost of \$90,000.
- b. The amount of funds originally estimated for consulting personnel was increased \$91,200 to conform to a standard estimate of \$30,000 per consultant year for consultants obtained through a consortium of specialized firms.

4. Meteorology

A detailed over-all review of natural resources activities brought to light that the meteorologic activity had to be completely revamped to meet the needs of the program. Instead of phasing a program of construction of meteorologic sites over the period of three years, the immediate needs of analysis of existing data was given top priority and the construction of the sites delayed until the third year. The gathering of data for aeronautical weather forecasting was eliminated and emphasis placed on agricultural and hydrological climatology.

The elimination of information for aeronautical purposes caused a reduction of \$34,951 in equipment. The reorganization caused added costs of \$8,914 in personnel, \$1,200 in operations, \$6,230 in equipment, \$1,500 in materials and 15 man-months of contract consulting services estimated at \$37,500.

5. Potable Ground Water

a. As a result of integrating the ground water investigation with the Geological Institute, contract consultant costs were reduced \$12,500, personnel costs were increased \$1,542, operations costs reduced \$1,500 and equipment costs reduced \$3,000.

b. The amount of funds originally estimated for consulting personnel was increased \$29,000 to conform to a standard estimate of \$30,000 per consultant year for consultants obtained through a consortium of specialized firms.

6. Irrigation Ground Water

As a result of integrating the ground water investigations with the Geological Institute, economies are expected in contracting of the test wells for irrigation projects. At the same time, the basic ground water studies are expected to discover additional areas of ground water availability heretofore not thought feasible. No change was made in the funding for contracting the test wells, but it is expected to accomplish a greater amount of work with the funds requested.

7. Basic and Special Mapping

- a. After consultations with officials of the GON, the request for \$136,985 for European photogrammetric equipment was eliminated from the A.I.D. loan and will be purchased with GON funds.
- b. The GON originally included a sum of \$137,000 as a GON contribution for equipment toward the project. As this equipment was procured with A.I.D. Grant Funds, it was eliminated.
- c. The German Grant provides for \$154,035 of mapping equipment, \$18,020 of which substitutes for equipment scheduled for U. S. procurement and \$73,410 of which substitutes for European equipment originally envisioned in the loan. The A.I.D. loan has been reduced \$18,020 and the GON contribution \$73,410.

8. Electronic Data Processing Center

The activity, as proposed, is undoubtedly feasible and worthy but has little immediate application to the program. The total activity cost of \$127,300 was eliminated from the A.I.D. loan.

9. Surface Water Investigation

- a. The GON plans a country-wide program of surface water investigation that has as its goal the establishment of 250 rain gages, 50 stations to measure rain, evaporation, humidity and temperature and 50 stream gaging stations. The program will be presented to the UN in January, 1966.
- b. A detailed over-all review of the needs in an integrated natural resources program determined the necessity to begin analysis of existing data immediately. The GON will contribute \$151,629 to acquire personnel that were to be obtained for the UNSF program so that the analysis may be initiated together with the rest of the natural resources disciplines. The A.I.D. loan will provide \$19,800 in salary costs, 20 months of contract consultant services estimated at \$50,000, \$7,800 in operational expenses and \$6,500 for equipment.

10. Administration and Supervision

An Executive Advisory Group will provide technical support for the over-all administration and supervision of the program. The technical support will consist of a Chief Consultant of a U. S. firm assisted by a bilingual Central American engineer and temporary assistance, as needed, from the U. S. firm. It is estimated that the top technical U. S. advisor for the full three-year period will cost \$120,000; approximately ten man-months of additional assistance from the same firm to formulate the detailed work plan. \$27,500; approximately twelve man-months of additional assistance from the same firm to provide additional consulting service during the three-year operation of the loan program, \$33,000; and the assistance of a bilingual Central American engineer for the three-year period, \$30,000. A reserve of \$15,000 will be held to finance a study for conversion of the natural resources information gathered and the property appraisal information to an Automatic Data Processing System. The GON will make separate arrangements to have CABEI provide the part-time services of a regional engineer and loan operations officer.

SECTION II - IMPLEMENTATION PLAN

A. Program Implementation

Following authorization of this loan, a draft Loan Agreement will be prepared for submission to the Borrower for negotiation, and signature. The basic implementation letter will be submitted at the same time. This should be completed within 60 days following authorization.

As soon as the loan is authorized the GON should initiate action on the contracts with the architectural engineering firm for the Geology and Cartographic Buildings and the consulting firm that will furnish the advisory service to the Executive Director. These contracts could be signed as soon as the loan agreement is signed --with the understanding the GON would pay any cost incurred should they be unable to meet the loan agreement initial conditions precedent, or they could be signed after the initial conditions precedent were met. Since the beginning of operations under the project is dependent upon the completion and approval by GON and A.I.D. of the detailed work plan it is imperative that the advisory consultants be contracted as soon as possible so they can start work on this plan.

Four months have been allowed in the present operating schedule for the contracting with the above-mentioned firms, the preparation and approval of the detailed work plan, the initiation of the contracting with the operating consultants and the initiation of procurement for the project--36 months are then estimated for the completion of the project operations.

The Loan Agreement will include three sets of Conditions Precedent to Disbursement: Conditions Precedent to Initial Financing (for the architectural engineering and advisory consultant contracts); Conditions Precedent for other than Initial Financing: proper legal measures will be taken to insure enforceability and structural adequacy of the property tax administration (see paragraph 10b of Summary); Conditions Precedent to Initial Financing of the Operations Activities (acceptance of the detailed work plan and for financing construction).

Section I F-3 of this Loan Paper, "Plan for Implementation of the Technical Phases of Program" includes a description of the procedures to be followed in arranging for the engineering, construction, and various consultant services required for this Project. The Borrower has received numerous inquiries from consulting firms interested in participating in this Project, but no specific consultants or consulting firms have yet been considered.

A preliminary Operation Schedule is contained in Annex III, Exhibit 2; the Construction Schedules for the two major buildings is contained in Annex III, Exhibits 10 and 11; and an over-all estimated Disbursement Schedule of Loan Funds, showing disbursements for engineering, construction, and consultant costs, is attached in Annex III, Exhibit 7.

B. Capacity of Borrower to Execute Project and Program

Section I E-2, "Project Administration," describes the Borrower's plan for administrating and executing this Program.

As the effectiveness of the Executive Director will be essential to the Program's success, appointment of an Executive Director acceptable to the National Economic Council and A.I.D. will be a Condition Precedent to initial Disbursement under the loan.

It is the opinion of US AID/N that the National Planning Office and the Executive Director working with the technical assistance described in Annex IV. will be competent to administer the execution of this Project and Program.

C. Capacity of Mission to Implement and Monitor this Loan

Primary responsibility for the implementation and monitoring of this loan within US AID/N under the present staffing pattern will reside in Capital Development Officer for the tax portion and the N.R. portion. The Mission will be assisted in meeting this responsibility by IAGS, ROCAP, I.R.S. and AID/W as needed. It may be necessary to add additional personnel to Mission staff to assist in monitoring implementation of this project.

SECTION III - IMPACT ON U. S. ECONOMY

A. Source/Origin and Procurement of Goods and Services

This Project will provide for the procurement in United States and CACM countries of goods and services utilizing the letter of commitment with special letter of credit procedures. It is estimated that at least \$1.1 million in contract services and \$5.6 million in commodities will be procured in the United States under letter of commitment for the project.

B. Competition with Private Enterprise

This Project will assist United States private enterprise. U. S. consulting firms, in preliminary discussions with National Planning Office officials, have already indicated their interest and capability for carrying out the consulting services required by this program.

C. Effect on U. S. Economy

This loan will not have an unfavorable effect on the U. S. economy.

SECTION IV - COVENANTS AND CONDITIONS

See Loan Authorization (Annex V, attached).

SECTION V - ISSUES

The one issue of this paper is that A.I.D. is financing 42% of the local costs of the project. However, this matter is not considered to be one of major concern when viewing the GON input to the three-year project (\$3.7 million or 54% of total local costs), and particularly when considering the planned GON contribution to the 10-year program of \$18.1 million.

Nicaragua is a developing country with reliance on only several basic crops to support its external trade market. The reliability of this market is somewhat uncertain and demands the maintenance of whatever foreign exchange reserves the country holds. In addition, like many countries in a similar economic condition, Nicaragua is devoting sizable resources to other capital development projects, thus limiting the amount of funds which could otherwise be allocated to this project.

For these reasons, the project committee is of the opinion that A.I.D. financing of local costs for this project is justified.

June 23, 1965

UNCLASSIFIED
AID-DLC/P-356
ANNEX I, 1 of 9

TAX IMPROVEMENT AND NATURAL RESOURCES INVENTORY LOAN

CHECK LIST OF STATUTORY CRITERIA (ALLIANCE FOR PROGRESS)

1. Foreign Assistance Act of 1961, as amended (hereinafter FAA), Section 102. Precautions that have been or are being taken to assure that loan proceeds are not diverted to short-term emergency purposes (such as budgetary, balance of payments, or military purposes) or any other purpose not essential to the country's long-range economic development.

The purpose of this loan is to assist in the financing of studies and related costs of evaluation and utilization of natural resources and improvement in the real property tax system.

2. FAA Section 201(d). Information and conclusion on legality (under laws of country and United States) and reasonableness of lending and relending terms of the loan.

Loan terms are consistent with United States and Nicaraguan laws.

3. FAA Section 251(a). Manner in which loan will promote country's economic development and contribute to the welfare of its people.

This loan will provide the basis for evaluating and utilizing the natural resource potential of Nicaragua and improvement of the property tax system.

4. FAA Section 251(b)(1). Extent to which country 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 extent to which country has demonstrated a clear determination to take effective self-help measures. The Government of Nicaragua has continually demonstrated a positive effort to adhere to the principles of the Act of Bogota and the Charter of Punta del Este. This effort is reflected in the GON's responsiveness to the vital

social, political and economic needs of the Nicaraguan people. Although the major stress has been on strengthening the infrastructure of the nation, much attention has also been given to the improvement of health, education and social welfare agencies. Through the operations of The National Development Institute, the Ministry of Agriculture and the Institute for Agrarian Reform, agricultural and industrial progress has been made. The end product of such progress is an upward trend in the standard of living for the Nicaraguan people.

In the area of self-help, the Government of Nicaragua has taken a number of practical steps. These include such areas as public administration; budget increases for the social agencies; liberalization of bank credit; and participation in the efforts to form a successful Central American Common Market. Also, it should be noted, that all United States-connected projects in Nicaragua, whether funded by grant or loan, have been financed on a joint basis with the GON contributing its proportional share of the funds.

5. FAA Section 251(b)(2). Information and conclusion on activity's economic and technical soundness.

See Sections I. F. and G.

6. FAA Section 251(b)(3). Information and conclusion on activity's relationship to other development activities, and its contribution to realizable long-range objectives.

This project involves studies of natural resource potential and the property tax system which is inter-related to other development activities and will contribute to realizable long-range objectives of Nicaragua.

7. FAA Section 251(b)(4). Information and conclusion on possible effects on U. S. economy, with special reference to areas of substantial labor surplus.

This project will not have an unfavorable impact on the U.S. economy.

8. FAA Section 251(b). Information and conclusion on availability of financing from other free world sources, including private sources within the United States.

Other free world financial sources are not interested in financing this project.

9. FAA Section 251(b). Information and conclusion on capacity of the country to repay the loan. It is believed that Nicaragua has the capacity to repay this loan.
10. FAA Section 251(b). Information and conclusion on country's efforts to repatriate capital invested in other countries by its own citizens. Capital flight is not considered to be a problem in Nicaragua at this time.
11. FAA Section 251(b). Information and conclusion on reasonable prospects of repayment. It is believed that there are reasonable prospects of repayment of this loan.

12. FAA Section 251(c). Information and conclusion on availability of an application together with sufficient information and assurances to indicate reasonably that funds will be used in an economically and technically sound manner.

There is sufficient information to indicate that the funds under this loan will be used in an economically and technically sound manner.

13. FAA Section 251(g). Information and conclusion on use of loan to assist in promoting the cooperative movement in Latin America. Not applicable.

14. FAA Section 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 procurement from private sources.

All funds under this loan will be used to procure goods and services from private sources.

15. FAA Section 601. Information and conclusion on 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; (f) strengthen free labor unions.

Results of this project are expected to have far-reaching affects on Nicaraguan economic development.

16. FAA Section 601(b):621. Information and conclusion on how the loan will encourage and facilitate participation by private enterprise to the maximum extent practicable. 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. Participation by private enterprise will be encouraged and facilitated to the maximum extent practicable.

17. FAA Section 601(d). Conclusion and supporting information on compliance with the Congressional policy that engineering and professional services of U. S. firms and their affiliates are to be used in connection with capital projects to the maximum extent consistent with the national interest.

This policy will be complied with.

18. FAA Sections 601, 602. Information and conclusions whether loan will (a) encourage U.S. private trade and investment abroad; (b) encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U. S. private enterprise), and (c) permit American small business to participate equitably in the furnishing of goods and services financed by it.

Private enterprise will be encouraged to participate in the furnishing of goods and services for this project.

19. FAA Section 604(a). Compliance with restriction of commodity procurement to U. S. except as otherwise determined by the President and subject to statutory reporting requirements. Will be complied with.
20. FAA Section 604(b). Compliance with bulk commodity procurement restriction to prices no higher than the market price prevailing in the United States at time of purchase. Will be complied with.
21. FAA Section 604(d). Compliance with requirement that marine insurance be purchased on commodities if the host country discriminates, and that such insurance be placed in the United States. Will be complied with.

22. FAA Section 611(a)(1). Information and conclusion on availability of engineering, financial, and other plans necessary to carry out the assistance and of a reasonably firm estimate of the cost of the assistance to the United States.

Necessary substantive technical and financial planning for the project has been completed and a reasonably firm estimate of cost for the project has been obtained.

23. FAA Section 611(a)(2). Necessary legislative action required within host country and basis for reasonable anticipation such action will be completed in time to permit orderly accomplishment of purposes of loan. Tax legislation will be required as Conditions Precedent to the Loan. Legislative approval of the loan is required before the Loan Agreement may be signed. It is expected that this approval will be obtained within a short period of time to permit orderly accomplishment of the purposes of the loan.
24. FAA Section 611(b): App. Section 101. If water or water-related resource construction project or program, information and conclusion on benefit-cost computation. Not applicable.
25. FAA Section 611(c). Compliance with requirement that contracts for construction be let on competitive basis to maximum extent practicable.

Will be complied with.

26. FAA Section 619. Compliance with requirement that assistance to newly independent countries be furnished through multilateral organizations as plans to maximum extent appropriate. Not applicable.
27. FAA Section 620(a); Foreign Aid and Related Agencies Appropriations Act of 1965 (Hereinafter "App.") Section 107. Compliance with prohibitions against assistance to Cuba and any country (a) which furnishes assistance to Cuba or failed to take appropriate steps by February 14, 1964, to prevent ships or aircraft under its registry from carrying equipment, materials, or supplies from or to Cuba; or (b) which sells, furnishes or permits any ships under its registry from carrying items of primary strategic significance, or items of economic assistance to Cuba. Nicaragua provides no assistance to Cuba.

UNCLASSIFIED
ANNEX I, 7 of 9

28. FAA Section 620(b). If assistance to the government of a country, existence of determination it is not controlled by the international Communist movement. Nicaragua is not controlled by the international Communist movement.
29. FAA Section 620(c). If assistance to the government of a country, existence of indebtedness to a U.S. citizen for goods or services furnished or ordered where such citizen has exhausted available legal remedies or where the debt is not denied or contested by such government or the indebtedness arises under an unconditional guaranty of payment given by such government. Not applicable.
30. FAA Section 620(d). If assistance for any productive enterprise which will compete in the United States with U. S. enterprise, existence of agreement by the recipient country to prevent export to the United States of more than 20% of the enterprise's annual production during the life of the loan. Not applicable.
31. FAA Section 620(e). If assistance to the government of a country, extent to which it (including government agencies or subdivisions) has, after January 1, 1962, taken steps to repudiate or nullify contracts or 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 appropriate steps to discharge its obligations. Nicaragua has taken no such action.
32. FAA Section 620(f); App. Section 109. Compliance with prohibitions against assistance to any Communist country. Nicaragua is not a Communist country.
33. FAA Section 620(g). Compliance with prohibition against use of assistance to compensate owners for expropriated or nationalized property. Will be complied with.
34. FAA Section 620(h). Compliance with regulations and procedures adopted to insure against use of assistance in a manner which, contrary to the best interests of the U.S. promotes or assists the foreign aid projects or activities of the Communist-bloc countries. Will be complied with.

UNCLASSIFIED

35. FAA Section 620(i). Existence of determination that the country is not engaging in or preparing for aggressive military efforts. Nicaragua is not engaging in such activity.
36. FAA Section 620(k). If construction of productive enterprise where aggregate value of assistance to be furnished by United States will exceed \$100 million, identification of statutory authority. Not applicable.
37. FAA Section 620(l). Compliance with prohibition against assistance after 31 December 1965 for the government of a country which fails to institute investment guaranty program. Nicaragua has an investment guaranty program.
38. FAA Sections 636(h); 612(c). Appropriate steps that have been taken to assure that, to maximum extent possible, country is contributing local currencies to meet the cost of contractual and other services and foreign currencies owned by the United States are utilized to meet the cost of contractual and other services.

Nicaragua is contributing local currencies to the maximum extent possible.
39. App. (Section Unnumbered). Use of funds to carry out FAA Section 205, which pertains to IDA. Not applicable.
40. App. Section 102. Compliance with requirement that payment in excess of \$25,000 for architectural and engineering services on any one project be reported to Congress. Will be complied with.
41. App. Section 104. Compliance with bar against funds to pay pensions, etc., for military personnel. Will be complied with.
42. App. Section 111. Compliance with requirement for security clearance of personnel under contracts for services. Will be complied with.

43. App. Section 112. Compliance with requirement for approval of contractors and contract terms for capital projects. Will be complied with.
44. App. Section 114. Compliance with bar against use of funds to pay assessments, etc., of UN member. Will be complied with.
45. App. Section 117. Compliance with regulations on employment of United States and local personnel for funds obligated after 30 April 1964 (Regulation 7). Will be complied with.
46. App. Section 401. Compliance with bar against use of funds for publicity or propaganda purposes within United States not heretofore authorized by Congress. Will be complied with.

June 23, 1965

DETAILED TECHNICAL DESCRIPTION

ANNEX II

INDEX

	<u>Page</u>
A. Project Objectives.....	1
B. Property Tax Improvements.....	1
C. Description of the Natural Resources Survey.....	2
D. Purposes of the Natural Resources Inventory.....	5
E. Basic and Special Mapping.....	6
F. Geologic and Cartographic Building.....	8
1. Construction of Buildings.....	8
2. Surface Water Investigations.....	10
3. Investigation of Agriculture and Forestry Resources	10
4. Investigation of Mineral Resources.....	11
5. Aerial Photography.....	11

DETAILED TECHNICAL DESCRIPTION

A. Project Objectives

The Project has as its basic aims the increasing of government revenues so as to help finance the Country's Economic development and the identification of natural resources so that exploitation can be accelerated and contribute to the country's economic development.

The increase of government revenues will, in this Project, be accomplished through the modernization of the real property tax system primarily by establishing a cadastre of private and public properties and the use of scientific methods of property appraisal. The basic techniques to be used in both respects is map production on which will be compiled the necessary information that can more readily be used to establish land capability classifications and delineate and evaluate properties.

Tax administration improvement will supplement efforts to establish public and private properties and their values so as to satisfy the need to reorganize the existing system.

The planned utilization of the natural resources data and the acceleration of basic mapping will assure project and program development needed for economic growth.

General studies will be conducted over 35,000 square kilometers of the Pacific area during a three-year period (see Annex III, Exhibit I) in Geology, Geomorphology, Soils and Vegetation, Land-use, Ground Water and Surface Water Hydrology, Climatology, Land Capability. Property Tax Studies will include the same region. Basic mapping will be extended to unmapped Atlantic Coast and Central areas of Nicaragua.

B. Property Tax Improvements (Additional detail is available in Supplement 3.)

1. The improvement and modernization of the real property tax structure for Nicaragua will enable the Government to realize an immediate increase in this source of revenue and at the same time effect a more equitable distribution of the tax burden.

2. The establishment of a uniform and equitable base for the levy and collection of a direct tax on real property includes a coordinated system which will fulfill all the requirements of an adequate tax administrative structure.
3. The property tax base will be created in three coordinated steps:
 - a. Discovery or Inventory
 - b. Evaluation
 - c. Listing

The discovery of property will include the production of property ownership maps, property ownership records, taxpayers' returns, and a field canvas of property. Evaluation of land and property improvements entails the use of procedures and techniques that have been gradually introduced over many years by property tax assessors and specialists in the appraisal field.

Listing will require the mechanical tabulation of the properties on a roll to include the ownership and valuation that, when a tax rate is included, can serve as a tax roll.

4. The above steps will correct the system now in use for Nicaragua in order to provide an effective administration of the property tax structure.
- C. Description of the Natural Resources Survey - (Additional detail is available in Supp. 2)
1. A 35,000 sq. km. region will be divided into carefully defined areas. The studies will be undertaken in one area at a time according to a plan of priority established by the Project Executive Director based on the property tax study and development needs. A review of all existing programs and projects will precede the delimitation of the areas as well as the priority evaluation.

2. The data developed will be plotted on 1:10,000, 1:20,000 and 1:50,000 scale mosaics and overlays. They will be made into a permanent record, as appropriate for each subject and area, in a form that can be readily used for project development. The data will be further adopted for ADP analysis, together with the systemization of the real property data.
3. The maps and overlays for geology, soils, hydrology and other disciplines will be produced by individual agencies in close coordination with one another, all assisted by foreign technicians, where necessary.
 - (a) Geology and geomorphology will locate and describe rock units, their origin, composition, texture, tectolinear patterns; map and identify transported materials, land forms such as flood plains, terraces, lava flows, intrusions, etc.
 - (b) Ground water hydrology will map all wells and surface springs, locate tectolinears; use seismic profiles, resistivity tests to map geophysical characteristics, determine the soil permeability, drainability and make water quality analyses; prepare maps of ground water potential or aquifer yield, etc.
 - (c) Soils studies will show pedological classifications; profiles samples for analysis of horizons; fertility, etc.
 - (d) Forestry and vegetation studies will develop a classification of forest species, evaluate potential capacity of each forest area, determine distribution of species, etc.
 - (e) Land use studies will identify existing land use in the Project area, both of the cultivated and uncultivated land surface. Urban and rural areas will consider cultural and physical features--crops, pasture land, and forest.
 - (f) Land capability surveys will follow Soil conservation methods in classifying agricultural land potential.

- (g) Climatological data gathered will include: mapping of all stations, collection and preparation of climatological information: drawing isohyetal maps; preparation of maps by climates of areas; rainfall maps.
 - (h) Surface water hydrology will include maps of all stream gage stations; compilation of water rights, etc.
4. Although general geology and geomorphology maps will be produced by the Servicio Geologico Nacional and the soils maps by the Ministerio de Agricultura, both agencies' representatives will be operative as teams. This will have a material effect on the final product, both on the quality and the efficiency of the operation. The land use specialists will likewise work closely with Cartografia and Ingreso in the Cadastral Survey. At various stages of the project, ground Hydrology will collaborate with Geology. The land capability survey will then require the full coordination of all disciplines.
 5. The most modern techniques of aerial photography and photo interpretation, of well drilling, stream measurement, selective instrument location, etc. will be used to increase output and analysis of data in support of field operations and laboratory testing.
 6. The natural resources evaluation program in Nicaragua is expected to require 10 years, during which there will be full map coverage for over 100,000 sq. km. Since the A.I.D. will finance services of foreign technicians for the first three-year period, it will be necessary to strengthen GON institutions by the training of professional and technical personnel so that the work may continue beyond the third year. Necessary equipment will likewise be made available to the participating agencies as support for this program.
 7. The training and equipment provided for in the program will help set the basis for long-range records and help produce more accurate data on a continuing basis.

D. Purposes of the Natural Resources Inventory

1. An interdisciplinary approach will be used to identify natural resources and study their utilization. Activities will be coordinated as often as possible in order to achieve the maximum efficiency of operation. The loan will, in the main, finance the services to be provided by foreign technicians. They will help direct data collection analysis as well as on-the-job training.
2. One of the principal results will be the development of land capability classifications primarily for agricultural use, but for industrial, mining, extraction of fertilizers and construction materials and control of erosion, as well.
3. The land capability classification maps will provide a more equitable basis for land evaluation as required for fiscal purposes.
4. These maps will be used for planning farm operations, such as the selection of areas of cultivation, the establishment of cropping patterns and rotation, and the selection of permanent crops and pastures.
5. The Agrarian Reform Institute will more readily determine economic farm unit sizes in planning for colonization and resettlement.
6. The National Planning Office will find the land capability classifications a basic tool in projections of future agricultural production and income. The determination of areas of more intensive and extensive agriculture will yield data on the supply possibilities of meeting projected demand.
7. In sectoral studies, land capability classifications will help benefit cost studies, analysis of irrigation and hydroelectric projects and select priorities from among alternative projects.

8. The maps and overlays for geology, soils, etc. can be used as desired, independently or together, with one or two other subject maps as basic tools for the GON in its planning and implementation of agricultural and infrastructure development. Land use maps will provide a valuable tool for both fiscal and general program planning.
9. Geology and geomorphology together with soils surveys will be used for more efficient resource surveys in soils classification, water availability, construction, erosion, location of industrial sites.
10. Geology and soils information are of great value to engineers in planning and building canals, highways, powerlines and pipe lines.
11. Hydrologic studies determine the quantity of water available for irrigation; meteorological and climatological studies provide rainfall data to classify agricultural zones and need for irrigation.

E. Basic and Special Mapping

1. Acceleration of Basic Mapping

2. Acceleration of Basic Mapping Basic topographic maps at a scale of 1:50,000, completed to date cover approximately 38,000 square kilometers of the national territory. The area that remains to be covered amounts to 92,000 square kilometers. The present production capacity for this type of maps is 8,000 square kilometers covered per year. At this rate of production 12 years will be required to complete the basic map of the country. This period of time is considered too long to adequately satisfy the demand for these maps for study, investigation, or development purposes. Consequently, the present project proposes to provide Direccion General de Cartografia with the necessary equipment facilities and personnel to enable it to double the present production capacity, with the object of completing the basic topographic map in a period of six years.

The cartographic activities to be completed include:

Establishment of Supplementary Control	- 49,500 KM ²
Field Classification	- 44,800 KM ²
Photogrammetric Compilation	- 42,000 KM ²
Cartographic Drafting	- 44,000 KM ²

2. Preparation of Special Maps for Specific Projects

At present, the Direccion General de Cartografia does not have the capacity to produce maps at large scales for specific projects without significantly affecting its basic map production schedule.

It is necessary to provide the Direccion General de Cartografia with the basic equipment and funds to create the capacity for meeting a certain percentage of the demands anticipated for this type of maps. It has been estimated that the minimum requirements could be satisfied by providing the Direccion General de Cartografia with the capacity for producing an amount of mapping, per year, equivalent to 1,500 square kilometers at a scale of 1:5,000 with a 2-meter contour interval.

The maps for specific projects will be utilized by all the Government agencies engaged in development programs, among which the most important are: highway, city planning and municipal services, rural colonization, irrigation, hydro-electric developments, and flood control and drainage.

3. Other

Under the proposed project for the increase of production capacity the Direccion General de Cartografia will have personnel and equipment available for obtaining aerial photography, preparing photographic copies and enlargements, photomosaics, and photomaps to support the program for Evaluation of Natural Resources and Improvement of Real Estate Property Tax System. It will also be in a position to assist

in the projects and program prepared by other Government Institutions. However, due to the considerable number of national agencies that utilize aerial photographic services and due to the fact that as a result of the development of the present Program this use of aerial photographic services will be greatly increased, it is proposed to include in the cost estimates of the Direccion General de Cartografia only the personnel and equipment required for the performance of the services mentioned above, and to assign the responsibility -- providing the necessary materials, such as photographic papers and chemicals, etc. to the interested organizations.

F. Geologic and Cartographic Buildings

1. Construction of Buildings

The construction of two buildings will be financed under the loan Project:

- a. The Geologic Institute building will be built as a single story building and will have 1,300 square meters in area (14,000 square feet).

This roof will be built in form of slabs of prefabricated ceramic tile beams reinforced with steel and a thin cover of concrete and impermeable Flinkote, and main beams of reinforced concrete. Ceilings will be cement mortar and plaster finish.

The columns and footings will be of reinforced concrete. The walls will be of hollow ceramic tile with seismic connections at all openings and intersections and will be covered with a cement mortar and finished with plaster. Floors will be made of local cement tiles. Minor partitions will be of wood and plywood. Windows will be glass jalousies in aluminum frames and doors of solid wood or plywood. Plumbing will be of cast iron and galvanized iron. Included in the building cost is a telephone plant for 15 internal phones, 3 ventilators, and air compressor and a hot water heater for the laboratories. The building

will be airconditioned with separate window units. A separate wall of decorative ceramic tile will be built around the front and part of the sides. Apart from the main building a garage, supply room and coffee bar will be of corrugated zinc, over light prefabricated steel purlins. The columns and footings will be of reinforced concrete. The walls of the supply room and coffee bar as in the main building but the garage will be covered with heavy wire mesh with doors of galvanized pipe and wire mesh. The floors will be of heavy concrete block.

- b. The Cartographic Agency Building will be built as a one-story building and will have 2,000 square meters in area (21,000 square feet). The roof will be built of reinforced concrete slabs and covered with insulation and impermeable roofing material and the roof beams and joists will be of prestressed reinforced concrete. The columns and footings will be of reinforced concrete, the entire structure designed for seismic load. The walls will be of concrete block, plastered on both sides with seismic connections. The ceiling will be of incombustible acoustic tile on a metallic suspension system. The floors will be of local cement tile. Partitions will be of a movable metallic frames with wood and glass panels. The windows will be aluminum jalousies and the main door of plate glass with aluminum frame. Plumbing will be of cast iron and copper pipe. Included in the building cost is an integral roof top airconditioning unit.

Apart from the main building will be a coffee bar of 90 sq. meters built of concrete block, reinforce concrete columns and a corrugated zinc roof supported by light prefabricated steel purlins. Another building of 480 sq. meters and of similar type construction will be built for vehicle maintenance and supply room.

2. Surfaces Water Investigations

The GON expects a favorable determination of the Surface Water Investigation Project that will be presented for financing to the United Nations Special Fund in January 1966. The Central American Bank has approved a loan to the GON to assist in paying some of the Cordoba costs of the Activity, subject to the UNSF approval. The Activity will meet long-range needs for accurate information on surface water for the development of irrigation, potable water, transportation and hydroelectric projects. The program calls for establishment of 250 rain gauges, 50 stations to measure rainfall, evaporation, humidity and temperature and 50 stream gaging stations.

In the event that the United Nations does not approve the project, the long-range program of accurate data on surface water characteristics could be adversely affected but the immediate goal of collecting and reviewing surface water data will nevertheless be undertaken under the integrated natural resources studies. The Loan Project will therefore not be influenced by the acceptance or disapproval of the United Nations Project.

3. Investigation of Agriculture and Forestry Resources

An Activity financed by the United Nations Special Fund is being carried out to investigate agricultural and forest potential in a 15,000 Km.² area near the Atlantic Coast. This Activity is not included in the proposed Loan Project, but is an important part of the over-all Country Program. This is a detailed four-year Activity that will be complete in November 1966.

4. Investigation of Mineral Resources

An Activity financed by the United Nations Special Fund is being carried out to investigate two areas of high mineral potential in Nicaragua and to assist the GON draw up a new mining code. The data gathered, coupled with a modern mining code, is expected to attract private venture capital for mining development, and the Activity will have provided specialized training for Nicaraguan geologists. The Activity is not included in the proposed Loan Project, but is an important part of the over-all Country Program. This Activity is of two and one-half-year duration, and is scheduled to be completed in early 1966. The GON technicians working on this Activity will not be available to work on the A.I.D. Loan Project initially, but will be integrated into the Geology Activity in early 1966.

5. Aerial Photography

In anticipation of real property tax programs and natural resources programs that the representatives of the countries of Central American and Panama indicated to be of top priority, ROCAP financed a regional contract to supply the immediate aerial photography needs for the programs. The contract covers the 35,000 Km² priority area of Nicaragua at the scale of 1:20,000 and is more than 50% completed. The entire area should be completed by June 1966 when the contract terminates. The photography is a basic tool for the program as new, large scale photography is essential for the proposed studies. The ROCAP-financed photography is apart from that which is used for basic mapping and which is being obtained by arrangements made with IAGS at the scale of 1:60,000. The photography for basic mapping is of much smaller scale and is not suitable for the detailed studies proposed by the program.

ANNEX III

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ANNEX III

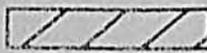
INDEX

AID-DIC-P-356
June 23, 1965

- Exhibit 1 Map of Program Activities
- Exhibit 2 Loan Project - Operation Schedule
- Exhibit 3 Loan Project - Technical Assistance
- Exhibit 4 GON Permanent Personnel - Present and Additional
- Exhibit 5 Total Program Costs - by Source and Use of Funds
- Exhibit 6 Total Program Costs - GON vs. Loan Contributions
- Exhibit 7 Total Project Costs - by Activity and Component
- Exhibit 8 List of Major Equipment Requirements
- Exhibit 9 Contributions to Development Costs of New Personnel; GON vs Loan
- Exhibit 10 Construction Schedules - Cartographic Building
- Exhibit 11 Construction Schedules - Geological Building
- Exhibit 12 Construction Schedules - Meteorological Stations
- Exhibit 13 Construction Site Information for Geological and Cartographic Bldgs.
- Exhibit 14 GON Statement on Availability of Required Personnel
- Exhibit 15 Provision For Maintenance of Program Equipment

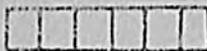
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REPUBLIC OF NICARAGUA

 Priority Area (3 Year Program)

(Approximately 35,000 Km²)

Real Property Tax	Vegetation and Forestry
Geology, Geomorphology	Climatology
Underground Water	Soils, Land Use
Surface Water	Land Capability

 2nd. Phase of 10 Year Program

(Approximately 95,000 Km²)

 Meteorologic Stations

 UNSF Agriculture and Forestry

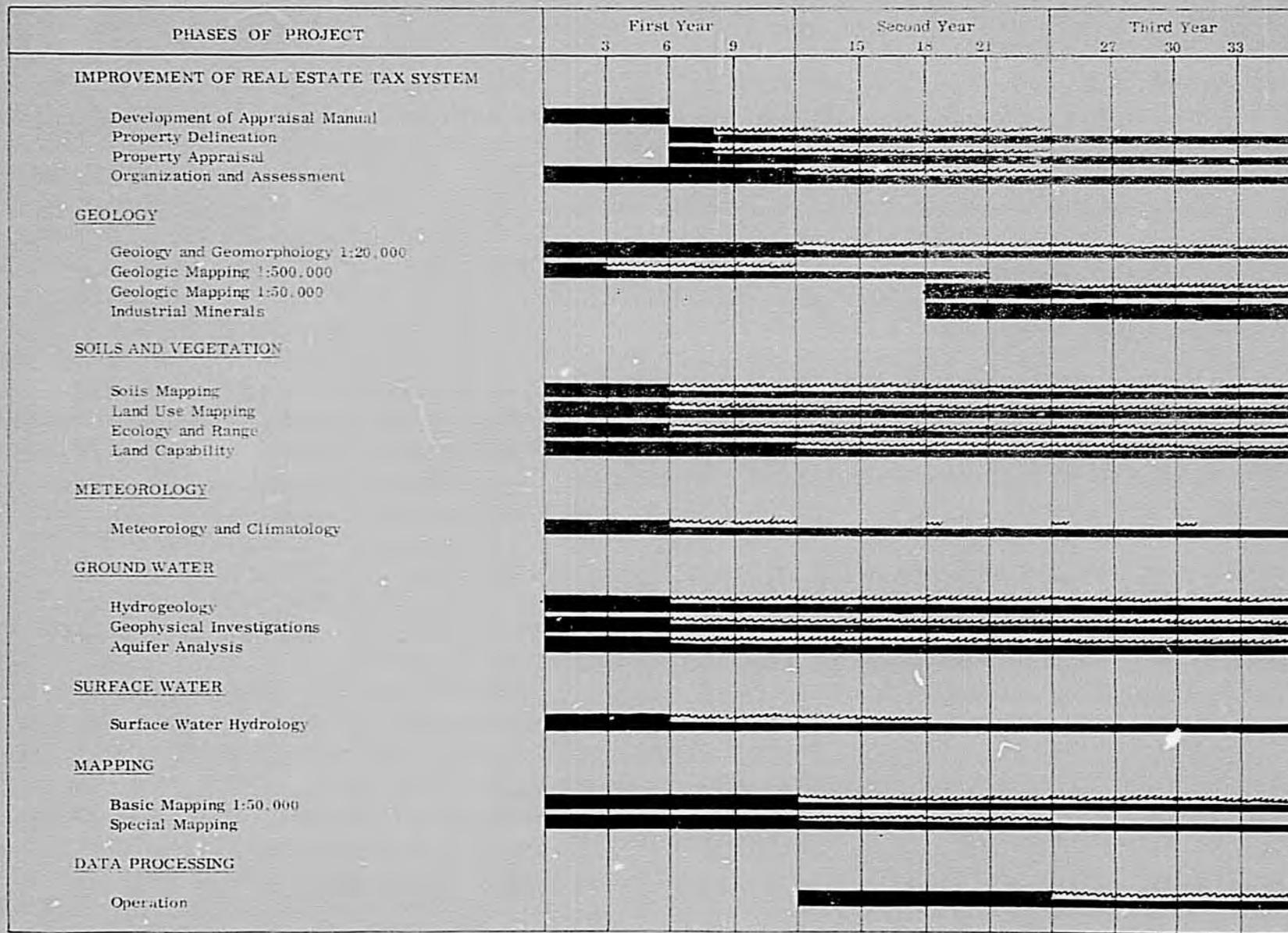
 UNSF
Mineral Resources

Approximate Scale: 1:2,800,000

Total Area: 57,100 square miles

Managua

TECHNICAL ASSISTANCE AND FOREIGN CONSULTANTS



■ Preliminary training ■ Operation Period ~~~~~ On-job training

15

1-100000
1-100000
1-100000

TECHNICAL ASSISTANCE AND FOREIGN CONSULTANTS

Phases of Project		First Year			Second Year			Third Year		
		3	6	9	15	18	21	27	30	33
Improvement of Real Property Tax System	Property Tax Advisor				(Contract)					
	Cost of Construction Expert				(Contract)					
	Property Appraisal Expert				(Contract)					
	Map Preparation Expert		(Contract)							
Geology	Supervising Geologist				(Contract)					
	Geologist (Photogeologist)				(Contract)					
	Librarian			(Contract)						
	Hydrogeologist							(Contract)		
Soils and Vegetation	Land Use Specialist						(Contract)			
	Soils Expert (Photo Interpretation)						(Contract)	(Contract)		
	Agrostologist (Range & Pasture)						(Contract)			
	Irrigation Soils Expert						(Contract)			
	Forester-Ecologist						FAO			
	Land Capability Expert						FAO			
Meteorology	Aeronautical Meteorologist		(ICAO)							
	Chimatologist				(Contract)					
Ground Water (Potable)	Supervisor Hydrologist								(Contract)	
	Engineer (Well construction)						(Contract)			
	Chemical Analist				(Contract)					
	Hydrogeologist				WHO					
Ground Water (Irrigation)	Consultant Hydrologist				(Contract)					
	Agricultural Economist				(INFONAC)					
	Agropedologist				(INFONAC)					
	Soils Expert				(FAO)					
Basic and Special Mapping	Project Engineer				(IAGS)					
	Field Surveys Engr.				(IAGS)					
	Photogrammetrist				(IAGS)					
	Vertical Control Supr.				(IAGS)					
	Cartographic Specialist									(IAGS)
Surface Water	Surface Water Hydrologist						(Contract)			
Administration and Supervision	Chief Consultant and Advisors						(Contract)			
	Assistant Engineer						(Contract)			
	Loan Operations Officer						(CABEI)			
	Regional Engineer Advisor						(CABEI)			

FAO - Food and Agricultural Organization (U. N.)
 ICAO- International Civil Aviation Organization (U. N.)
 WHO - World Health Organization (U. N.)

INFONAC - Instituto de Fomento Nacional (Nic.)
 IAGS - Interamerican Geodetic Survey (U. S.)
 CABEI - Central American Bank (C. A.)

Best Available Document

14-00000-101

52

PERMANENT PERSONNEL
IMPROVEMENT OF REAL ESTATE TAX SYSTEM
(FIGURES IN CORDOBAS - 1 US\$ = 7 CORDOBAS)

TITLE	No.	Monthly Salary	Present Staff	New Personnel
<u>GENERAL ADMINISTRATION</u>				
Director General (15% of Salary)	.15	5,000	9,000	
Secretary General (15% of Salary)	.15	4,000	7,200	
Chief Property Tax Division	1	4,000	48,000	
Assistant Chief, Property Tax Division	1	3,500	42,000	
Secretary, Class C	1	1,000	12,000	
Typist	1	900	10,800	
Cadastral Project Supervisor	1	4,000		48,000
Secretary, Short Hand, Class A	1	1,500		18,000
Project Analysis Clerk	1	1,500		**18,000
Typist	2	900		**21,600
<u>MAP PREPARATION AND PROPERTY DESCRIPTION</u>				
Supervisor, Drafting	1	2,500		30,000
Draftsmen	10	1,000		120,000
Rural Zone Supervisor	1	1,800		*21,600
Urban Zone Supervisor	1	1,800		*21,600
Property Registry Clerks	12	1,200		**172,800
Delineators	12	900		129,600
Surveyors	12	1,000		*144,000

TITLE	No.	Monthly Salary	Present Staff	New Personnel
<u>APPRAISAL SECTION</u>				
Chief, Appraisal Section	1	2,500	30,000	
Appraisers	3	1,500	54,000	
Tax Computer	1	1,800	21,600	
Tax computer	1	1,400	16,800	
Typist	1	846	10,156	
Secretary	1	1,200		** 14,400
Supervisor Appraisers	10	2,500		* 300,000
Appraisers	50	2,000		** 1,200,000
Assistant Appraisers	50	700		** 420,000
Computer and Transfer Clerks	20	1,200		** 288,000
Auditor Appraisers	2	2,200		** 52,800
Commercial and Industry Appraisers	2	2,200		** 52,800
Cost Estimators	4	1,800		86,400
<u>RECORDS STORAGE AND CONTROL</u>				
Chief of Section	1	2,000	24,000	
Declarations Clerk	1	900	10,800	
Clerical Assistant	1	800	9,600	
Control Clerk	1	750	9,000	
Clerical Assistant	1	600	7,200	

TITLE	No.	Monthly Salary	Present Staff	New Personnel
File Clerk	1	900	10,800	
File Clerk	1	800	9,600	
<u>DEPARTMENTAL REPRESENTATIVES</u>				
Representative, Boaco	1	750	9,000	
Representative, Carazo	1	1,000	12,000	
Representative, Chontales	1	750	9,000	
Representative, Chinandega	1	1,000	12,000	
Representative, Estelí	1	750	9,000	
Representative, Granada	1	900	10,800	
Representative, Jinotega	1	750	9,000	
Representative, León	1	1,200	14,400	
Representative, Madriz	1	700	8,400	
Representative, Masaya	1	1,000	12,000	
Representative, Matagalpa	1	900	8,400	
Representative, Nueva Segovia	1	700	8,400	
Representative, San Juan	1	650	7,800	
Representative, Rivas	1	750	9,000	
Representative, Zelaya	1	900	10,800	
TOTAL:			494,956	***3,159,600

* Employed only nine months of first year.

** Employed only six months of first year.

*** Loan pays all of first year, 2/3 of second, 1/3 of third year.

55

PERMANENT PERSONNEL
GEOLOGY
(FIGURES IN CORDOBAS - 1 US\$ 7 CORDOBAS)

TITLE	No.	Monthly Salary	Present Staff	New Personnel
<u>GENERAL ADMINISTRATION</u>				
Director	1	4,000	48,000	
Secretary	1	1,200	14,400	
<u>OPERATIONS DIVISION</u>				
+Geologist, Mining	2	4,000	96,000	
Geologist, Geophysical	2	3,500	84,000	
+Geologist, Geophysical	1	3,500	42,000	
+Technicians, Seismic	2	1,800	43,200	
+Engineer, Mining	1	3,500	42,000	
Field Assistants	2	1,200	28,800	
+Field Assistants	4	1,200	57,600	
+Secretaries, Bilingual	2	1,500	36,000	
+Topographer	1	1,200	14,400	
+Cartographer	1	1,200	14,400	
Draftsman	1	1,200	14,400	
Draftsman, Assistant	1	900	10,800	
Draftsman	2	1,500		36,000
Drivers	1	600	7,200	
+Drivers	3	600	21,600	

TITLE	No.	Monthly Salary	Present Staff	New Personnel
<u>LABORATORIES DIVISION</u>				
Chief Chemist	1	3,500	42,000	
Assayor Technician	1	1,800	21,600	
Assistant	1	800	9,600	
Helper	1	800	9,600	
<u>ADMINISTRATIVE DIVISION</u>				
Secretary	1	900	10,800	
Supply man	1	800	9,600	
File Clerk	1	600	7,200	
Janitor	1	450	5,400	
<u>INTEGRATED NATURAL RESOURCES GROUP</u>				
<u>GEOLOGY AND GEOMORPHOLOGY</u>				
Photogeologists	2	3,850		92,400
Field Assistants	2	1,500		36,000
Drivers	2	600		14,400
<u>GROUNDWATER HYDROLOGIC INFORMATION CENTER</u>				
Chief hydrogeologist	1	4,000	48,000	
Assistant to Hydrologist	1	1,500	18,000	
Geological Engineer	1	3,850		46,200
Assistant to Geologist	1	1,500		18,000
Water Analyst	1	2,000		24,000
		TOTAL	756,600	++ 267,000

+ Not charged to project for first 18 months as they are assigned to UNSF project.
++ Loan pays all of first year, 2/3 of second year, 1/3 of third year.

PERMANENT PERSONNEL
SOILS AND VEGETATION
(FIGURES IN CORDOBAS - 1 US\$ 7 CORDOBAS)

T I T L E	No.	Monthly Salary	Present Staff	New Personnel
<u>INTEGRATED NATURAL RESOURCES GROUP</u>				
<u>GENERAL ADMINISTRATION</u>				
Project Supervisor	1	4,000		48,000
Bilingual Secretary	1	1,500		18,000
<u>SOILS DIVISION</u>				
Chief of Division	1	3,500	42,000	
Soils Technicians	6	2,500		180,000
Soils Engineer	1	2,000	24,000	
Irrigation Engineer*	1	2,000		
Cartographer *	1	1,700		
Soils Technician Assistant	2	1,700	40,800	
Topographer	1	1,100	13,200	
Draftsman *	1	900		
Typist	1	900	10,800	
Janitor *	1	350		
<u>FORESTRY DIVISION</u>				
Chief of Division	1	2,700	32,400	
Senior Forester	5	2,500	32,400	
Foresters	5	2,500		150,000
Forest Inspectors	3	1,500	54,000	
Forest Inspectors	7	1,000	84,000	
Pasture Technician	2	2,500		60,000

T I T L E	No.	Monthly Salary	Present Staff	New Personnel
Secretary	1	1,000	12,000	
Seed Technician	1	500	6,000	
Driver	1	450	5,400	
Caretaker-Watchman	3	260	9,360	
<u>LAND USE DIVISION</u>				
Agronomy Engineers	4	2,800		134,400
Agricultural Economist	1	2,800		33,600
<u>LABORATORY</u>				
Soils Chemist	1	3,000		36,000
Laboratory Assistant	1	2,000		24,000
		<u>TOTAL</u>	366,360	684,000**

* Not charged to project as they are not directly involved.

** Loan pays 51% of first year, 31% of second year 15% of third year.

PERMANENT PERSONNEL
METEOROLOGY
(FIGURES IN CORDOBAS - (US\$:7 CORDOBAS))

T I T L E	No.	Monthly Salary	Present Staff	New Personnel
<u>(1) GENERAL ADMINISTRATION</u>				
Director	1	3,000	36,000	
Secretary	1	1,400	16,800	
<u>CENTRAL OFFICE OPERATION</u>				
Instrument Specialist	1	2,000	24,000	
Weather Forecaster	2	1,800	43,200+++	
Statistician	1	1,200	14,400	
Observer 1st Class	3	1,500	54,000	
Assistant Observer, 2nd Class	4	800		38,400+
Assistant Observer, 3rd Class	1	700	8,400	
<u>FIELD OPERATIONS</u>				
Observers, 1st Class	2	1,500	36,000	
Assistant Observers, 1st Class	3	1,200		43,200+
Observers, 2nd Class	10	1,000	108,000	12,000+
Assistant Observers, 2nd Class	3	800		28,000+
<u>INTEGRATED NATURAL RESOURCES GROUP</u>				
<u>CLIMATOLOGICAL OFFICE</u>				
Chief Climatologist	1	2,500	30,000	
Agricultural Meteorologist	1	2,300		27,600
Assistant Meteorologist	2	1,200		28,800
Calculators	4	1,200		57,600
Draftsman	1	1,500		18,000
Secretary	1	1,400		16,800
TOTAL			370,800	271,200++

- (1) Organization represents new organization scheme.
- (2) GON will raise salaries approximately 50% to figure shown during period of loan.
 - + Not to begin until third year of Loan.
 - ++ Loan pays all of first year. 50% of second year, 45% of third year.
 - +++ Two weather forecasters will be added by the GON during the third year.

PERMANENT PERSONNEL
POTABLE GROUND WATER

(FIGURES IN CORDOBAS - 1 US#:7 CORDOBAS)

T I T L E	No.	Monthly Salary	Present Staff	New Personnel
<u>DIRECTION (5% of Salaries)</u>				
Director	.05	5,000	3,000	
Chief Mechanic	.05	2,700	1,620	
Project Inspector	.05	2,500	1,500	
Purchase Agent	.05	2,000	1,200	
Electrician	.05	1,400	840	
Statistician	.05	1,100	660	
Secretary	.05	1,000	600	
Chief of Transportation	.05	800	480	
<u>ADMINISTRATION (10% of Salaries)</u>				
Chief Administrator	.10	3,500	4,200	
Cost Accountant	.10	2,500	3,000	
Payroll Accountant	.10	1,800	2,160	
Coordinator	.10	1,750	2,100	
Assistant Accountants	.30	1,000	3,600	
Typist	.10	750	900	
Warehouse Accountant	.10	600	720	
Typist	.20	450	1,080	
Janitor	.10	400	480	
<u>SUPPLY (20% of Salaries)</u>				
Chief of Supply	.20	1,400	3,360	
Kardex Clerk	.20	1,000	2,400	
Supply Assistants	.40	800	3,840	
Secretary	.20	500	1,200	
Janitor	.20	400	960	
<u>PART-TIME WORKERS (10% of Salaries)</u>	.10	27,216	32,660	

T I T L E	No.	Monthly Salary	Present Staff	New Personnel
<u>ENGINEERING & STUDIES DIVISION</u>				
Chief Engineer (25% of Salary)	.25	4,500	13,500	
Planning Engineer (50% of Salary)	.50	3,100	18,600	
Engineer (Not involved)	0	3,000		
Engineer (Not involved)	0	2,800		
Engineer Aids (50% of Salary)	1.00	2,500	30,000	
Engineer Aid (Not involved)	0	1,500		
Draftsman B (Not involved)	0	1,000		
Draftsman C (Not involved)	0	900		
Draftsman D (Not involved)	0	850		
Topographer	1	1,400		16,800
Topographer A	1	1,400	16,800	
Topographer B (Not involved)	0	1,000		
Secretary	1	850	10,200	
Levelsman	1	850	10,200	
Chainman - Notekeeper	1	700		8,400
Chainman - (50% of Salary)	3	650	23,400	
Chainman - Driver	3	700		25,200
Chainman - Driver (50% of Salary)	1	700	8,400	
Driver (Not involved)	0	650		
<u>HYDROGEOLOGY SECTION</u>				
Chief Engineer	1	4,550		54,600
Engineer	1	3,500	42,000	
Engineer Aid	1	2,000	24,000	
Well Drillers A	3	1,750	21,000	
Well Drillers B (Not involved)	0	1,400		

T I T L E	No.	Monthly Salary	Present Staff	New Personnel
Well Driller C (Not involved)	0	1,000		
Well Drillers Helpers	4	840		40,320
Welder A (50% of Salary)	.50	850	10,200	
Welder B (Not involved)	0	700		
Welder C (Not involved)	0	600		
Mechanic (25% of Salary)	1	800	9,600	
Guards	2	700		16,800
Secretary (50% of Salary)	.50	700	8,400	
<u>INTEGRATED NATURAL RESOURCES GROUP</u>				
<u>GROUNDWATER HYDROLOGIC INFORMATION CENTER</u>				
Engineer Hydrologist	1	3,850		46,200
Bilingual Draftsman	1	1,750		21,000
Draftsman "A"	1	1,300	15,600	
Bilingual Secretary	1	1,500		18,000
TOTAL			334,940	289,320+

+ Loan pays all of first year, 2/3 of second year, 1/3 of third year.

PERMANENT PERSONNEL
IRRIGATION GROUND WATER
 (FIGURES IN CORDOBAS - 1 US\$: 7 CORDOBAS)

T I T L E	No.	Monthly Salary	Present Staff	New Personnel
Engineer	1	4,800	57,600	
Engineer Aid	1	600	7,200	
Secretary (Part Time)	.3	1,300	5,520	
Irrigation Consultant	.25	8,000	24,000	
Economist	.10	7,000	8,400	
Agronomist	.25	7,000	21,000	
Agronomist	.25	3,000	9,000	
Soils Specialist	.40	3,000	14,400	
		TOTAL	147,120*	

* No loan funds involved.

65

PERMANENT PERSONNEL
BASIC AND SPECIAL MAPPING
(FIGURES IN CORDOBAS- 1US\$:7 CORDOBAS)

T I T L E	No.	Monthly Salary	Present Staff	New Personnel
<u>GENERAL ADMINISTRATION</u>				
Director	1	4,000	48,000	
Deputy Director	1	3,500	42,000	
Secretary	1	1,400	16,800	
Administration Chief	1	2,500	30,000	
Secretary	* 3	800	9,600	19,200
Supply man	1	940	11,280	
Chief of Archives	1	1,500		18,000
Archives Clerk	1	1,060	12,720	
Accountant	1	1,500		18,000
Carpenter	1	1,060	12,720	
Carpenters Helper	1	590	7,080	
Janitor	4	590	21,240	7,080
Driver	6	765	55,080	
Watchman	2	490	11,760	
Chief Mechanic	1	1,600	19,200	
Mechanic, 1st Class	* 5	1,000	24,000	36,000
Mechanic, 2nd Class	* 5	700	25,200	16,800
Welder	1	880	10,560	
Mechanics Helper	3	240	8,640	
Vehicle Dispatcher	1	1,000		12,000
<u>AERIAL PHOTOGRAPHY</u>				
Pilot	1	1,300	15,600	
Co-Pilot	1	1,100	13,200	
Cameramen	1	1,300	15,600	
Mechanic	1	1,200	14,400	

T I T L E	No.	Monthly Salary	Present Staff	New Personnel
<u>GEODETTIC CONTROL</u>				
Chief Engineer	1	2,100	25,200	
Chief Basic Mapping Section	1	1,760	21,120	
Chief Special Mapping Section	1	2,000		24,000
Chief Vertical Control	1	1,460	17,520	
Observer, 1st Class	* 6	1,500		108,000
Observers, 2nd Class	* 5	1,235	74,100	
Recorder	11	1,000	48,000	84,000
Reconnaissance Engineer	2	1,170	14,040	14,040
Filed Computer	1	1,500		18,000
Station Preparation man	2	1,200		28,800
Station Preparation & Driver	4	900		43,200
Rodman	6	700	16,800	33,600
Driver	4	600		28,800
<u>FIELD CLASSIFICATION</u>				
Chief of Classification	1	1,500	18,000	
Classifier, 1st Class	3	1,450		52,200
Classifier, 2nd Class	3	1,000	36,000	
Field Editor, 2nd Class	2	1,000	24,000	
Drivers	4	600		28,800
<u>GEODETTIC COMPUTATION</u>				
Computers	5	1,450	17,400	69,600
Typists	2	800		19,200
<u>PHOTOGRAMMETRY</u>				
Chief of Section	1	2,200	26,400	
Chief of Aerial Traingulation	1	2,000		24,000
Aerial triangulation Adjuster	1	2,000		24,000

T I T L E	No.	Monthly Salary	Present Staff	New Personnel
Operator-Autograph	1	2,000		24,000
Autograph Helper	1	800	9,600	
Compiler, 1st Class	* 16	1,500	18,000	270,000
Compiler, 2nd Class	6	1,300	93,600	
Compilation Supervisor	2	1,800		42,200
Operator-Coordinatograph	1	1,000		12,000
Editor, 1st Class	1	1,400	16,800	
Editor, 2nd Class	1	1,260	15,120	
<u>DRAFTING</u>				
Chief of Section	1	2,200	26,400	
Supervisor	1	1,800		21,600
Draftsman, 1st Class	7	1,500		126,000
Draftsman, 2nd Class	8	1,200	28,800	86,400
Draftsman, 3rd Class	* 6	1,000	72,000	
Editor, 1st Class	1	1,600		19,200
Editor, 2nd Class	1	1,400	16,800	
Mosaic Preparation man	1	1,500		18,000
Mosaic Compiler	1	1,200		14,400
Mosaic Assistant	1	800		9,600
<u>REPRODUCTION</u>				
Chief of Section	1	2,500		30,000
Laboratory Technician, 1st Class	1	1,800	21,600	
Laboratory Technician, 2nd Class	2	1,000	12,000	12,000
Laboratory Assistant	1	930	11,160	
Press Operator	1	1,530		18,000
Assistant Press Operator	1	800		9,600
		1,105,140		**1,458,720

* Some personnel do not earn top salary authorized due to short period of employment.
**Loan pays all of first year, 2/3 of second year, 1/3 of third year.

68

PERMANENT PERSONNEL
SURFACE WATER
 (FIGURES IN CORDOBAS 1 US\$:7 CORDOBAS)

T I T L E	No.	Monthly Salary	Present Staff	New Personnel
<u>ADMINISTRATION (15% of Salary)</u>				
Director	15	4,500	8,100	
Secretary	15	1,550	2,790	
Chief Administration	15	2,500	4,500	
Bookkeeper	15	1,100	1,980	
Break room clerk	30	1,000	3,600	
Typist	15	900	1,620	
Office boy	15	450	810	
<u>TECHNICAL STAFF (Not involved)</u>				
Civil Engineer, Chief	1	3,000		
Electrical Engineer	1	3,750		
Civil Engineer	1	2,500		
Legal Advisor	1	3,000		
Legal Assistant	1	1,100		
Calculator	1	1,300		
Draftsman	1	1,100		
Laboratory, Chief	1	1,600		
Laboratory Assistant	1	1,300		
Laboratory Helper	1	800		
Auditor	1	1,500		
Assistant Auditor	1	1,300		
Secretary	1	1,000		
Typist	1	900		

T I T L E	No.	Monthly Salary	Present Staff	New Personnel
<u>INTEGRATED NATURAL RESOURCES GROUP</u>				
Chief Engineer	1	4,000	48,000	
Engineer Hydrologist	2	3,850	46,200*	46,200
Civil Engineer	1	3,850	46,200*	
Chief Calculator	1	2,000	24,000	
Calculator	2	1,500	36,000*	
Secretary	1	1,500	18,000*	
Draftsman	1	1,500	18,000*	
Stream Flow Measures	3	800	28,800	
Drivers	2	675	16,200*	
		TOTAL	304,800	**46,200

* To be hired by GON in anticipation of UNSF project.

** To be contracted for 3 years with loan funds.

410

PERMANENT PERSONNEL

ADMINISTRATION AND SUPERVISION

(FIGURES IN CORDOBAS 1 US\$: 7 CORDOBAS)

T I T L E	No.	Monthly Salary	Present Staff	New Personnel
Executive Director	1	7,000		84,000
Administrative Assistant	1	2,500		30,000
Bilingual Secretary	1	1,800		21,600
			TOTAL	135,600 *

* No loan funds involved.

TOTAL COST OF PROGRAM
(IN US\$ EQUIVALENTS)*

<u>SOURCE OF FUNDS</u>	NATURAL RESOURCES AND MAPPING		TAX IMPROVEMENT		TOTAL	
	US\$	CORDOBAS	US\$	CORDOBAS	US\$	CORDOBAS
	AID LOAN (\$5,400,000	2,204,018	1,670,219	269,468	1,228,074	2,473,486
ROCAP Grant (Aerial Photography)	30,000		30,000		60,000	
IAGS	700,000				700,000	
UN (FAO, WHO, ICAO)	310,000				310,000	
GON		3,015,307		733,761		3,749,068
German Grant		220,000				220,000
<u>SUB-TOTAL LOAN PROJECT (\$10,410,847)</u>	<u>3,244,018</u>	<u>4,905,526</u>	<u>299,468</u>	<u>1,961,835</u>	<u>3,543,486</u>	<u>6,867,361</u>
UN Special Fund Projects						
<u>UNSF</u> Surface Hydrology	406,948				406,948	
Agriculture & Forestry	766,800				766,800	
Mineral Resources	693,000				693,000	
<u>GON</u> Surface Hydrology		484,310				484,310
Agriculture & Forestry		524,150				524,150
Mineral Resources		446,300				446,300
<u>CABEI</u> Surface Hydrology		263,843				263,843
<u>SUB-TOTAL 3-YEAR PROGRAM (\$13,996,198)</u>	<u>5,110,766</u>	<u>6,624,129</u>	<u>299,468</u>	<u>1,961,835</u>	<u>5,410,234</u>	<u>8,585,964</u>
GON Additional 7-Year Budget		9,508,366		3,147,599		12,655,965
IAGS (Estimate)	1,000,000				1,000,000	
UN (Estimate)	300,000				300,000	
<u>TOTAL 10-YEAR PROGRAM (\$27,952,163)</u>	<u>6,410,766</u>	<u>16,132,495</u>	<u>299,468</u>	<u>5,109,434</u>	<u>6,710,234</u>	<u>21,241,929</u>

* Includes 10% contingencies.

ANNEX III
Exhibit

SUMMARY BREAKDOWN
TOTAL PROJECT AND PROGRAM COSTS
(IN DOLLARS AND CORDOBA EQUIVALENTS)

PHASE OF PROGRAM		GON REGULAR BUDGET (3-YRS.)	ADDITIONS TO GON BUDGET (3-YRS.)	YEARLY GON BUDGET 4-10 YRS.	LOAN	TOTAL COST 3-YRS. PERIOD	TOTAL COSTS ADDITIONAL 7-YRS. PERIOD
Improvement of Real Estate Tax System	\$	215,685	451,371	447,657	1,361,402	2,028,458	3,147,599
	¢	1,509,798	3,159,599	3,147,600	9,529,814	14,199,211	22,033,200
Geology	\$	303,900	76,285	209,014	616,982	999,167	1,423,098
	¢	2,127,300	534,000	1,463,100	4,332,870	6,994,170	10,241,700
Soils and Vegetation	\$	157,955	297,015	224,151	591,486	1,046,456	1,569,057
	¢	1,105,680	2,079,100	1,569,060	4,140,400	7,325,180	10,983,420
Meteorology	\$	137,139	52,374	102,829	126,859	316,372	719,803
	¢	959,970	366,620	719,800	888,019	2,214,609	5,038,600
Potable Ground Water	\$	180,960	64,511	139,860	444,522	689,993	979,020
	¢	1,266,720	451,580	979,020	3,111,660	4,829,960	6,853,140
Irrigation Ground Water	\$	61,701	9,851	116,841	285,429	356,981	817,587
	¢	431,900	68,960	817,886	1,998,000	2,498,860	5,725,202
Basic and Special Mapping	\$	917,791	271,964	486,529	1,145,156	2,334,911	3,405,703
	¢	6,424,538	1,903,745	3,405,704	8,016,090	16,344,372	23,839,928
Surface Water	\$	74,229	77,400	59,743	84,100	235,729	418,201
	¢	519,600	541,800	418,200	588,700	1,652,100	2,927,400
Administration and Supervision	\$	-	56,113	19,371	225,500	289,613	135,597
	¢	-	406,800	135,600	1,576,500	2,027,300	949,200
Total (Less Contingencies)	\$	2,049,360	1,350,884	1,807,995	4,883,436	3,279,339	12,655,965
	¢	14,345,506	9,512,204	12,655,970	34,184,653	51,955,367	86,591,790
Total Including 10% Contingencies	\$		3,749,068		5,371,779	9,120,847	
	¢		26,243,481		37,602,433	63,845,939	

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SUMMARY
(IN DOLLAR AND CORDOBA EQUIVALENTS)

	FIRST YEAR			SECOND YEAR			THIRD YEAR			TOTAL		
	GON	LOAN		GON	LOAN		GON	LOAN		GON	LOAN	
		€	US\$		€	US\$		€	US\$		€	US\$
Salaries	\$ 491,631	639,377	-	834,414	540,338	-	1,144,949	285,640	-	2,498,953	1,465,353	-
	€ 3,637,410	4,475,640	-	5,840,890	3,782,360	-	8,014,370	1,999,480	-	17,492,670	10,257,480	-
Consultants	€ -	-	437,500	-	-	315,000	-	-	177,500	-	-	930,000
	€ -	-	3,062,500	-	-	2,205,000	-	-	1,242,500	-	-	6,510,000
Contracts	€ -	-	93,857	-	-	93,857	-	-	93,857	-	-	281,571
	€ -	-	657,000	-	-	657,000	-	-	657,000	-	-	1,971,000
Openings	\$ 47,982	199,460	21,100	80,012	211,545	21,100	111,115	180,298	21,100	239,109	591,303	63,300
Office, Building	€ 335,867	1,396,211	147,700	560,087	1,480,810	147,700	777,806	1,262,090	147,700	1,673,760	4,139,111	443,100
	\$ 14,629	246,873	203,686	3,200	12,429	-	3,200	23,399	180	21,029	282,701	203,866
Equipment	€ 102,403	1,728,108	1,425,800	22,400	87,003	-	22,400	163,793	1,260	147,203	1,978,904	1,427,060
	\$ 405,567	-	425,285	7,571	-	56,200	11,714	-	7,927	424,852	-	489,412
	€ 338,958	-	2,976,990	53,000	-	393,400	82,000	-	55,589	2,973,958	-	3,425,879
Furniture	€ 6,525	52,253	41,375	2,525	1,005	-	3,097	715	-	12,147	53,973	41,375
	€ 3,676	372,769	289,630	17,675	7,040	-	21,675	5,000	-	85,026	384,809	289,630
Materials, Publications	\$ 4,788	52,839	8,000	48,927	81,007	-	59,769	77,636	-	148,684	211,482	8,000
	€ 279,714	560,880	56,000	342,484	567,050	-	418,385	543,450	-	1,040,783	1,480,380	56,000
Scholar Administration	\$ 1,785	-	24,800	1,786	-	10,800	1,786	-	-	5,357	-	35,600
	€ 12,500	-	173,600	12,500	-	75,600	12,500	-	-	37,500	-	249,200
Supervision	\$ 19,371	10,000	93,500	19,371	10,000	51,000	19,371	10,000	51,000	58,113	30,000	195,500
	€ 135,600	70,000	654,500	135,600	70,000	357,000	135,600	70,000	357,000	406,800	210,000	1,368,500
Sub-Total	\$ 1,055,478	1,200,802	1,349,103	997,806	856,324	547,957	1,354,961	577,688	351,564	3,408,244	2,634,812	2,248,624
	€ 7,388,238	8,405,608	9,443,720	6,984,636	5,994,263	3,835,700	9,484,736	4,043,813	2,460,949	23,857,710	18,443,684	15,740,369
Contingencies 10%	\$ 105,548	120,000	134,710	99,781	85,632	54,796	135,496	57,769	35,156	340,824	263,481	224,862
	€ 738,834	840,561	914,372	698,464	599,426	383,570	948,474	404,381	246,095	2,385,771	1,844,368	1,574,037
Total	\$ 1,161,026	1,320,882	1,484,013	1,097,587	941,956	602,753	1,490,457	635,457	386,720	3,749,068	2,898,293	2,473,486
	€ 8,127,172	9,246,169	10,388,092	7,683,100	6,593,689	4,219,270	10,433,210	4,448,194	2,707,044	26,243,481	20,288,052	17,314,406

TOTAL LOAN
US\$ 5,371,779
€ 37,602,458

HL

IMPROVEMENT OF REAL ESTATE TAX SYSTEM
(IN DOLLAR AND CORDOBA EQUIVALENTS)

	FIRST YEAR			SECOND YEAR			THIRD YEAR			T O T A L		
	GON	LOAN		GON	LOAN		GON	LOAN		GON	LOAN	
		€	US\$		€	US\$		€	US\$		€	US\$
Salaries	70,708 494,956	273,943 1,917,600	-	221,165 1,548,156	300,914 2,106,400	-	371,622 2,601,356	150,457 1,053,200	-	663,495 4,644,468	725,314 5,077,200	-
Consultants	-	-	100,000 700,000	-	-	60,000 420,000	-	-	-	-	-	160,000 1,120,000
Contracts	-	-	-	-	-	-	-	-	-	-	-	-
Operations	-	42,165 295,155	-	-	77,490 542,430	-	-	77,490 542,430	-	-	197,145 1,380,015	-
Office, Build.	-	2,142 14,994	-	-	12,429 87,000	-	-	12,429 87,003	-	-	27,000 129,000	-
Equipment	-	-	80,500 563,500	-	-	-	-	-	-	-	-	80,500 563,500
Furniture	240 1,676	31,972 223,799	4,471 31,300	239 1,675	-	-	239 1,675	-	-	718 5,026	31,972 223,799	4,471 31,300
Materials, Pub.	947 6,634	30,600 214,200	-	948 6,634	52,200 365,400	-	948 6,635	52,200 365,400	-	2,843 19,903	135,000 945,000	-
Scholarships	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	71,895 503,266	380,822 2,665,748	184,971 1,294,800	222,352 1,556,465	443,033 3,101,233	60,000 420,000	372,809 2,609,666	292,576 2,048,033	-	667,056 4,669,397	1,116,431 7,815,014	244,971 1,714,800
										TOTAL US\$ 1,361,402		
										LOAN € 9,529,814		

UNCLASSIFIED
ANNEX III
EXHIBIT 7, 1999

75

GEOLOGY
(IN DOLLAR AND CUSDEBA EQUIVALENT)

ANNEX III
Exhibit
Page 3

	1st Year			2nd Year			3rd Year			TOTAL		
	GCM	LOAN		GCM	LOAN		GCM	LOAN		GCM	LOAN	
		\$	US\$		\$	US\$		\$	US\$		\$	US\$
Salaries	43,800	38,143	-	88,857	23,425	-	132,514	17,714	-	265,171	76,186	-
	308,400	287,000	-	620,400	178,000	-	934,800	99,000	-	1,861,800	534,000	-
Consultants	-	-	100,000	-	-	80,000	-	-	60,000	-	-	250,000
	-	-	735,000	-	-	630,000	-	-	420,000	-	-	1,785,000
Contracts	-	-	1,000	-	-	1,000	-	-	1,000	-	-	3,000
	-	-	7,000	-	-	7,000	-	-	7,000	-	-	21,000
Operations	13,372	14,236	-	18,511	9,714	-	22,857	5,478	-	55,000	29,178	-
	95,000	99,646	-	130,000	68,000	-	160,000	38,000	-	385,000	205,646	-
Office Build.	-	112,581	61,486	-	-	-	-	-	-	-	112,581	61,486
	-	788,064	430,400	-	-	-	-	-	-	-	788,064	430,400
Equipment	1,429	-	20,000	4,000	-	-	4,000	-	-	12,429	-	20,000
	17,000	-	140,000	28,000	-	-	42,000	-	-	87,000	-	140,000
Furniture	571	7,314	11,230	857	-	-	1,429	-	-	2,857	7,314	11,230
	4,000	51,200	78,610	6,000	-	-	10,000	-	-	20,000	51,200	78,610
Materials, Pub.	7,000	3,107	8,000	12,143	5,000	-	19,478	5,000	-	38,511	13,107	8,000
	49,000	21,750	56,000	85,000	35,000	-	136,000	35,000	-	270,000	91,750	56,000
Scholarships	1,785	-	10,800	1,786	-	10,800	1,785	-	-	5,357	-	21,600
	12,500	-	75,800	12,500	-	75,600	12,500	-	-	37,500	-	151,200
TOTAL	69,157	175,381	217,516	126,014	40,143	101,800	185,014	23,142	61,000	380,185	238,666	380,316
	484,100	1,227,660	1,522,610	882,100	281,000	712,600	1,295,100	162,000	427,000	2,661,300	1,670,660	2,662,210

TOTAL US\$ 618,982
LOAN \$ 4,332,870

SOILS AND VEGETATION

(IN DOLLAR AND GORDOBA EQUIVALENTS)

ANNEX III
Exhibit
Page 4

	1st Year			2nd Year			3rd Year			TOTAL		
	GON	LOAN		GON	LOAN		GON	LOAN		GON	LOAN	
		\$	US\$		\$	US\$		\$	US\$		\$	US\$
Salaries	100,337 702,360	49,714 343,000	-	119,766 338,360	30,286 212,000	-	134,909 944,360	15,143 100,000	-	355,012 2,435,080	95,143 666,000	-
Consultants	-	-	120,000 840,000	-	-	120,000 840,000	-	-	90,000 630,000	-	-	330,000 2,310,000
Contracts	-	-	-	-	-	-	-	-	-	-	-	-
Operations	1,029 7,200	50,500 353,500	-	19,500 136,500	32,600 228,200	-	38,857 272,000	13,100 91,700	-	59,386 415,700	96,200 673,400	-
Office, Build..	2,357 20,000	-	-	2,357 20,000	-	-	2,357 20,000	-	-	8,571 60,000	-	-
Equipment	2,144 15,000	-	24,257 169,800	3,571 25,000	-	-	5,714 40,000	-	-	11,429 80,000	-	24,257 169,800
Furniture	5,714 40,000	714 5,000	24,417 170,920	1,429 10,000	714 5,000	-	1,429 10,000	715 5,000	-	8,572 60,000	2,143 15,000	24,417 170,920
Materials, Pub..	571 4,000	7,897 55,280	-	4,143 29,000	7,286 51,000	-	7,286 51,000	4,143 29,000	-	12,000 84,000	19,326 135,280	-
Scholarships	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	112,652 788,560	108,825 761,720	169,674 1,150,720	151,266 1,058,860	70,886 496,200	120,000 840,000	191,052 1,337,360	33,101 231,700	90,000 630,000	454,970 3,184,730	212,812 1,489,680	378,674 2,650,720

TOTAL	\$	591,486
LOAN	\$	4,140,400

ANNEX III
Exhibit
4 of 9

17

METEOROLOGY
(IN DOLLAR AND CORDOBA EQUIVALENTS)

ANNEX III
Exhibit
Page 5

	1st Year			2nd Year			3rd Year			TOTAL		
	GON	LOAN		GON	LOAN		GON	LOAN		GON	LOAN	
		¢	US\$		¢	US\$		¢	US\$		¢	US\$
Salaries	40,629	21,258	-	57,429	10,629	-	74,229	17,486	-	172,286	49,371	-
	284,400	148,800		402,000	74,400		519,600	122,400		1,206,000	345,600	
Consultants	-	-	30,000	-	-	5,000	-	-	2,500	-	-	37,500
			210,000			35,000			17,500			262,500
Contracts	-	-	-	-	-	-	-	-	-	-	-	-
Operations	4,300	1,786	-	4,800	1,456	-	5,200	1,056	-	14,300	4,298	-
	30,100	12,500		33,600	10,190		36,400	7,390		100,100	30,080	
Office, Build.	-	-	-	-	-	-	-	10,970	180	-	10,970	180
								76,790	1,260		76,790	1,260
Equipment	-	-	10,740	-	-	-	-	-	7,927	-	-	18,667
			75,180						55,489			130,669
Furniture	-	1,133	1,257	-	291	-	-	-	-	-	1,424	1,257
		7,930	8,800		2,040						9,970	8,800
Materials, Pub.	784	1,235	-	1,007	1,093	-	1,136	864	-	2,927	3,192	-
	5,490	8,650		7,050	7,650		7,950	6,050		20,490	22,350	
Scholarships	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	45,713	25,412	41,997	63,236	13,469	5,000	80,565	30,376	10,607	189,513	69,255	57,604
	319,990	177,880	293,980	442,650	94,280	35,000	563,000	212,630	74,249	1,326,590	484,790	403,229

TOTAL US\$ 126,859
LOAN ¢ 888,019

ANNEX III
EXHIBIT
Page 5

29

GROUND WATER (POTABLE)
(IN DOLLAR AND CORDOBA EQUIVALENTS)

ANNEX III
Exhibit
Page 6.

	1st Year			2nd Year			3rd Year			TOTAL		
	CON	LOAN		GON	LOAN		GON	LOAN		GON	LOAN	
		\$	US\$		\$	US\$		\$	US\$		\$	US\$
Salaries	47,849	41,331	-	61,626	27,554	-	75,402	13,777	-	184,877	82,662	-
	334,940	289,320	-	431,380	192,880	-	527,820	96,440	-	1,294,140	578,640	-
Consultants	-	-	52,500	-	-	25,000	-	-	20,000	-	-	97,500
	-	-	367,500	-	-	175,000	-	-	140,000	-	-	682,500
Contracts	-	-	-	-	-	-	-	-	-	-	-	-
Operations	5,971	22,680	21,100	14,031	14,620	21,100	21,092	7,560	21,100	41,094	44,860	63,300
	41,800	158,760	147,700	99,220	102,340	147,700	147,640	52,920	147,700	287,660	314,020	443,100
Office, Build.	-	-	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	86,000	-	-	56,200	-	-	-	-	-	142,200
	-	-	602,000	-	-	393,400	-	-	-	-	-	995,400
Furniture	-	-	-	-	-	-	-	-	-	-	-	-
Materials, Pub.	6,500	-	-	6,500	-	-	6,500	-	-	-	-	-
	45,500	-	-	45,500	-	-	45,500	-	-	19,500	-	-
Scholarships	-	-	14,000	-	-	-	-	-	-	136,500	-	-
	-	-	98,000	-	-	-	-	-	-	-	-	14,000
	-	-	-	-	-	-	-	-	-	-	-	98,000
TOTAL	60,320	64,011	173,600	82,157	43,174	102,300	102,994	21,337	41,100	245,471	127,522	317,000
	422,240	448,080	1,152,000	575,100	295,220	716,100	720,960	149,360	287,700	1,718,300	892,660	2,219,000

TOTAL US\$ 444,522
LOAN \$ 3,111,660

16

GROUND WATER (DRINKING)
(In Dollar and Cordoba Equivalents)

ANNEX III
Exhibit
Page 7

	1st Year		2nd Year		3rd Year		TOTAL					
	GON	LOAN		GON	LOAN		GON	LOAN				
		¢	US\$		¢	US\$		¢	US\$			
Salaries	21,017 147,120	-	-	21,017 147,120	-	-	21,017 147,120	-	-	63,051 441,360	-	-
Consultants	-	-	-	-	-	-	-	-	-	-	-	-
Contracts	-	-	92,857 650,000	-	-	92,857 650,000	-	-	92,857 650,000	-	-	278,571 1,950,000
Operations	2,110 14,767	-	-	2,110 14,767	-	-	2,109 14,766	-	-	6,329 44,300	-	-
Office, Build.	343 2,400	-	-	343 2,400	-	-	343 2,400	-	-	1,029 7,200	-	-
Equipment	-	-	6,858 48,000	-	-	-	-	-	-	-	-	6,858 48,000
Furniture	-	-	-	-	-	-	-	-	-	-	-	-
Materials, Pub.	286 2,000	-	-	286 2,000	-	-	571 4,000	-	-	1,143 8,000	-	-
Scholarships	-	-	-	-	-	-	-	-	-	-	-	-
T O T A L	23,756 166,287	-	99,715 696,000	23,756 166,287	-	92,857 650,000	24,040 168,286	-	92,857 650,000	71,552 500,860	-	285,429 1,998,000
											TOTAL US\$	285,429
											LOAN	¢ 1,998,000

ANNEX III
Exhibit T, 7 of 9

90

BASIC AND SPECIAL MAPPING

ANNEX III
Exhibit
Page 8

(In Dollar and Cordoba Equivalents)

	1st Year			2nd Year			3rd Year			TOTAL		
	GON	LOAN		GON	LOAN		GON	LOAN		GON	LOAN	
		¢	US\$		¢	US\$		¢	US\$		¢	US\$
Salaries	151,748 1,062,234	208,368 1,458,720	-	221,211 1,548,474	138,926 972,480	-	290,673 2,034,714	69,463 486,240	-	663,632 4,645,422	416,777 2,917,440	-
Consultants	-	-	-	-	-	-	-	-	-	-	-	-
Contracts	-	-	-	-	-	-	-	-	-	-	-	-
Operations	15,000 105,000	55,493 458,450	-	15,000 105,000	73,065 511,450	-	15,000 105,000	73,064 511,450	-	45,000 315,000	211,622 1,481,350	-
Office, Build.	11,429 80,003	132,150 925,050	142,200 995,400	-	-	-	-	-	-	11,429 80,003	132,150 925,050	142,200 995,400
Equipment	400,994 2,808,958	-	190,430 1,333,010	-	-	-	-	-	-	400,994 2,808,958	-	190,430 1,333,010
Furniture	-	11,120 77,840	-	-	-	-	-	-	-	-	11,120 77,840	-
Materials, Pub.	22,900 160,300	10,000 70,000	-	22,900 160,300	15,428 108,000	-	22,900 160,300	15,429 108,000	-	48,700 480,900	40,857 288,000	-
Scholarships	-	-	-	-	-	-	-	-	-	-	-	-
T O T A L	602,971 4,214,495	427,151 2,990,060	332,630 2,328,410	259,111 1,813,774	227,419 1,591,940	-	328,573 2,300,014	157,956 1,105,690	-	1,189,755 8,328,283	12,526 5,087,660	332,630 2,328,410

TOTAL US\$ 1,145,156
LOAN ¢ 8,018,090

10

SURFACE WATER INVESTIGATION

ANNEX III
Exhibit
Page 9

(In Dollar and Cordoba Equivalents)

	1st Year			2nd Year			3rd Year			TOTAL		
	GON	LOAN		GON	LOAN		GON	LOAN		GON	LOAN	
		¢	US\$		¢	US\$		¢	US\$		¢	US\$
Salaries	43,543 304,800	6,600 46,200	-	43,543 304,800	6,600 46,200	-	43,543 304,800	6,600 46,200	-	130,629 914,400	19,800 138,600	-
Consultants	-	-	30,000 210,000	-	-	15,000 105,000	-	-	5,000 35,000	-	-	50,000 350,000
Contracts	-	-	-	-	-	-	-	-	-	-	-	-
Operation costs	6,000 42,000	2,600 18,200	-	6,000 42,000	2,600 18,200	-	6,000 42,000	2,600 18,200	-	18,000 126,000	7,800 54,600	-
Office, Build.	-	-	-	-	-	-	-	-	-	-	-	-
Equipment	-	-	6,500 45,500	-	-	-	-	-	-	-	-	6,500 45,500
Furniture	-	-	-	-	-	-	-	-	-	-	-	-
Materials, Pub.	1,000 7,000	-	-	1,000 7,000	-	-	1,000 7,000	-	-	3,000 21,000	-	-
Scholarships	-	-	-	-	-	-	-	-	-	-	-	-
T O T A L	50,543 353,800	9,200 64,400	36,500 255,500	50,543 353,800	9,200 64,400	15,000 105,000	50,543 353,800	9,200 64,400	5,000 35,000	151,629 1,061,400	27,500 193,200	56,500 395,500

TOTAL US\$ 64,100
LOAN ¢ 388,700

2

List of Major Equipment Requirements
(of U.S. Origin)
(Total \$805,953)

I. Taxation Improvement

1	Ozolid reproduction machine	\$	3,300
1	Sedan, 4 door vehicle		3,000
25	Jeeps, 4 wheel drive \$2,500 ea.		62,500
4	Station wagons, 4 wheel drive \$3,000 ea.		12,000
	Miscellaneous office equipment		4,471
	Total	\$	84,971

II. Natural Resources and Mapping

1. Geology

4	vehicle \$3,500 ea.	\$	14,000
2	Jeeps \$2,500 ea.		5,000
1	Map-o-Graph Projector		1,000
	Miscellaneous geologic field equipment		2,184
	Miscellaneous groundwater equipment		1,286
	Miscellaneous office equipment		8,260
	Library reference material		7,500
	Total	\$	84,971

2. Soils and Vegetation

2	Station vagns, 4 wheel drive \$2,571 ea.	\$	5,142
3	Jeeps, 4 wheel drive, \$2,086 ea.		6,258
5	Jeeps, 4 wheel drive w/winch \$2,571 ea		12,855

Miscellaneous soils and forestry field equipment	\$ 21,316
Miscellaneous office equipment	3,103
Total	\$ 48,674

3. Meteorology

1 Jeep, 4 wheel drive	\$ 2,200
1 Station wagon	2,800
Miscellaneous meteorological equipment	7,177
Total	\$ 20,104

4. Ground Water (Potable)

1 Rotating drill, diesel	\$ 35,000
1 Percussion drill, diesel	30,000
1 Compressor, air 200 psi, 300 ctm.	3,500
1 Welder, arc. electric	2,000
1 Truck, tank	5,000
1 Generator plant, 75KW electric on trailer	4,000
2 Pumps, submersible, 100 GPM, 600 head 600 C.T.D. \$4,500 ea.	9,000
3 Pumps, turbine diesel motor, 200 to 500 GPM, 400 to 200 head \$5,000 ea.	15,000
1 Recorder, resistivity and spontaneous potential	8,500
1 Geophysical equipment	1,800
2 Truck, dump, 1½ tons \$3,500 ea.	7,000
3 Station wagons \$3,000 ea.	9,000

Miscellaneous drilling equipment	\$ 5,400
Miscellaneous office equipment	3,000
Miscellaneous drilling pipe, casing, strainers, drill bits, drilling mud	67,300
	<hr/>
Total	\$ 205,500
5. <u>Ground Water (Irrigation)</u>	
2 Jeep pick-ups \$3,429 ea.	\$ 6,858
	<hr/>
Total	\$ 6,858
6. <u>Mapping</u>	
3 Stereoprojectors, 153 mm with pantograph 840 mm \$15,300 ea.	\$ 45,900
1 Rectangular coordinatograph 120 cm x 120 cm. with light table	2,500
1 Projector, vertical reflecting, Satzman Model 23-70A	6,700
1 Aircraft, Cessna 130 or equivalent modified for aerial photography	19,000
3 Electronic measuring instruments, Cubic model DM-20 or equivalent \$6,200 ea.	18,600
9 Trucks $\frac{3}{4}$ ton, wheel drive, with winch \$3,700 ea.	33,300
6 Electric calculators, 10 key \$1,000 ea.	6,000
11 Jeeps, 4 wheel drive \$2,500 ea.	27,500
Miscellaneous field equipment	17,235
Miscellaneous technical equipment	11,495
Miscellaneous office equipment	2,200
	<hr/>
Total	\$ 190,430

85

7. Surface Water Investigation

2 Jeeps \$2,500 ea.	\$ 5,000
1 Boat, 8 ft. fiberglass with 10 HP motor	1,000
1 Raft, rubber with 3HP motor	500
	<hr/>
Total	\$ 6,500

8. Cartographic Building

Mild Steel 110, lbs.	\$ 7,700
Presstressing steel 27,000 lbs.	14,000
Cement admixture, 5,000 lbs.	1,300
Structural steel, for joists	3,000
Acoustic tile and hangers, 20,000 ft. ²	7,500
Partitions, metal, 540 lin. ft.	3,000
Aluminum doors, 4ea.; windows, 70 ea.	11,000
Roofing materials 208 Squares	7,500
Luminaries, 408 ea.; outlets 600 ea.; misc.	27,000
Pipe, cast iron, 2,500 ft.	3,100
Air conditioning unit, 80 tons	37,000
Sanitary fixtures, 26 units	1,100
Miscellaneous construction material	14,000
	<hr/>
Total	\$ 142,200

9. Geology Building

Mild steel, 77,000 lbs.; galvanized wire 1,500 lbs.; nails 2,800 lbs.	\$ 7,143
Roofing, Flinkote, 160 Square; aluminum	5,714
Miscellaneous building materials	12,286

86

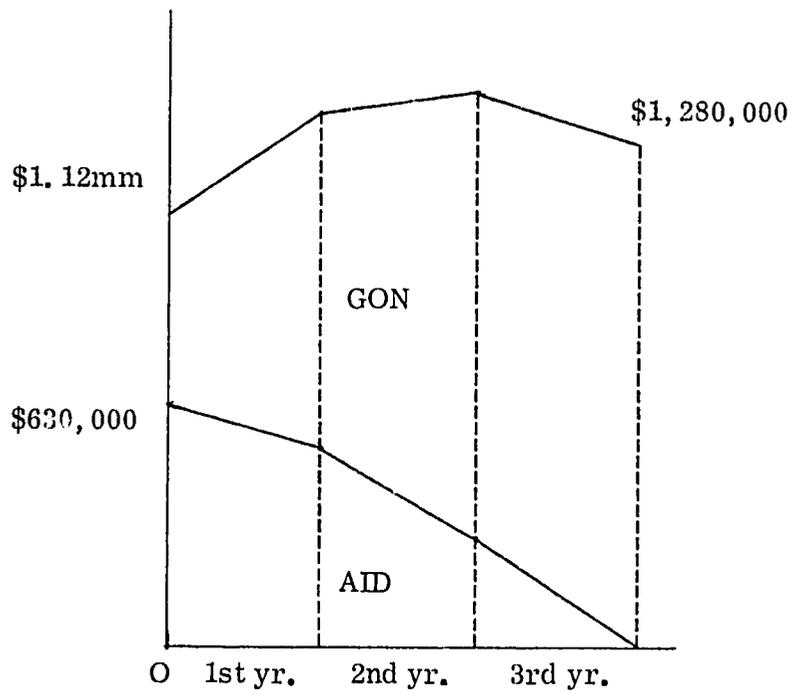
Pipe, castiron, 2,000 ft. and accessories	\$ 9,714
Wash basins, 7; comodes 11 and accessories	1,714
Miscellaneous electrical connections and wire	10,314
Telephone switch board, 6 lines, 15 telephones	4,600
Air conditioning units; 9,000 BTV, 1; 16,500 BTV 7; 20,000 BTV, 2; 23,500 BTV, 4 and miscellaneous ducts	8,751
Air compressor, 3 HP and hot water heater, 80 gal. and ventilator, 3	1,250
Total	<u>\$ 61,486</u>

13. European Origin (US\$ equivalent) to be Purchased by GON

1 Wild A-8 Sterocompiler with EK-5 register for IBM (Swiss)	\$ 41,000
1 Jerie Analog Computer (Netherlands)	6,000
1 Universal reduction printer Wild U-3 (Swiss)	8,000
1 Point transfer device Wild PUG-II (Swiss)	2,700
Miscellaneous field equipment (Swiss)	5,870
Total	<u>\$ 63,575</u>

(Not included in total
of U.S. Equipment)

Comparison of GON vs LOAN
Contribution to Training Costs of New Personnel



88

CONSTRUCTION SCHEDULE
CARTOGRAPHIC AGENCY BUILDING

	0	3	6	9	12	15	18	21	24	27	30	33	36	Months
Engineering Detailed Plans	-----													
Preparation of Bid Documents, Advertising of Bids, Award of Contract			-----											
Construction				-----										

29

COST ESTIMATE
CARTOGRAPHIC AGENCY BUILDING
(Cordobas in US dollar equivalents)

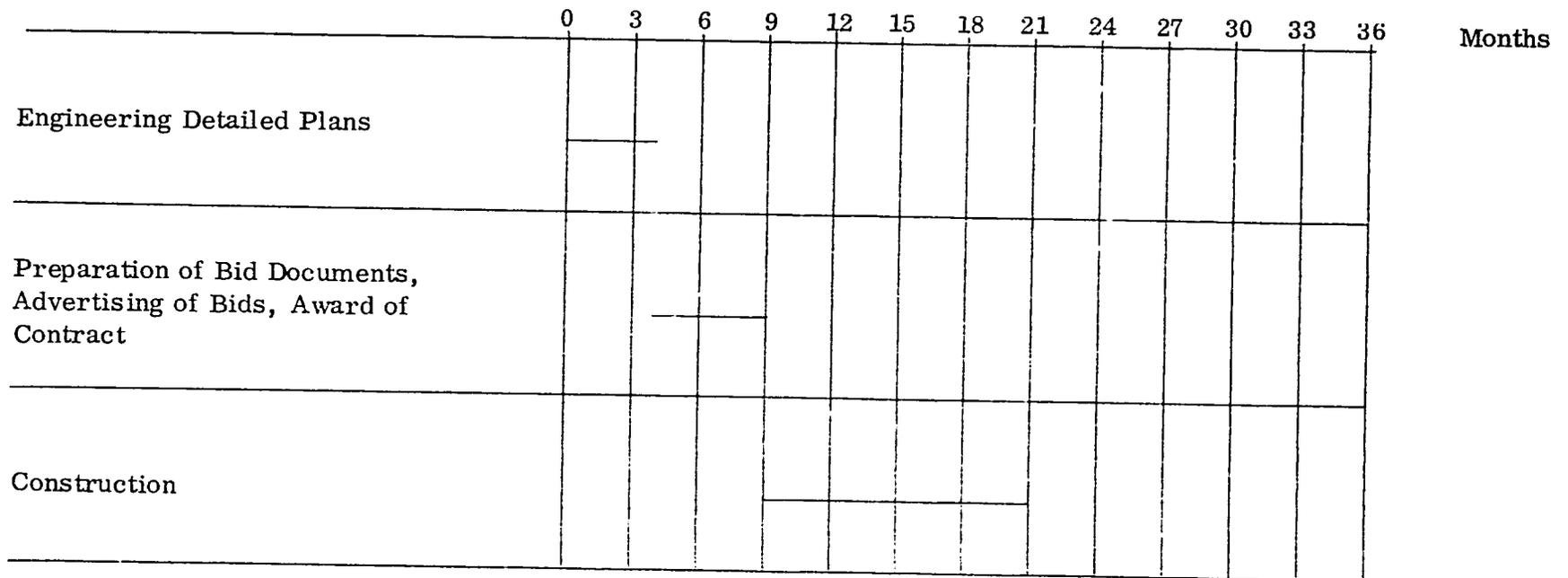
Item	Quantity	Cordoba Costs	Dollar Costs	TOTAL	
1	Preliminary grading and foundation excavation	\$ 4,529	---	\$ 4,529	
2	Concrete and masonry	650 m ³	54,644	\$26,000	80,644
3	Floors	20,000 ft. ²	9,560	---	9,560
4	Acoustic ceiling and roof	20,000 ft. ²	3,019	15,000	18,019
5	Finishing (Partition, doors, windows, etc.)	3,774	22,500	26,274	
6	Service Installations	600 outlets 24 plumbing units 80 Ton air Cond.	15,357	68,200	83,557
7	Miscellaneous	2,209	10,500	12,709	
	Sub-Total	\$ 93,092	\$ 142,200	\$ 235,292	
8	Construction Contractor's Profit (10%)	\$ 23,528	----	\$ 23,528	
	TOTAL CONSTRUCTION COST	\$116,620	\$142,200	\$ 258,820	
9	Architect and Engineering Fee	10,353	---	10,353	
10	Construction Supervision Fee	5,177	---	5,177	
	TOTAL COST	132,150	142,200	274,350	

Note: Contingencies of 10% have been anticipated but have been included in the overall 10% contingency for the entire loan.

DISBURSEMENT SCHEDULE
 CARTOGRAPHIC AGENCY BUILDING
 (Cordobas in US Dollar equivalents)

Months	Cordobas Costs	Dollars Costs	TOTAL
0 - 3	\$ 6,213	---	\$ 6,213
4 - 6	2,070	---	2,070
6 - 9	2,070	---	2,070
9 - 12	28,518	\$ 136,200	164,718
12 - 15	27,386	6,000	33,386
15 - 18	32,258	---	32,258
18 - 21	23,635	---	23,635
TOTAL	<u>\$ 132,150</u>	<u>\$ 142,200</u>	<u>\$ 274,350</u>

CONSTRUCTION SCHEDULE
GEOLOGICAL INSTITUTE BUILDING



97

COST ESTIMATE
NATIONAL GEOLOGIC SERVICE BUILDING
 (Cordobas in US dollar equivalents)

Item	Quantity	Cordoba Costs	Dollar Cost	TOTAL
1	Excavation	--	\$ 4,200	\$ 4,200
2	Concrete, masonry, and roof	1,600 m ²	33,615	12,857
3	Floors	1,300 m ²	13,357	--
4	Finishing (partitions, doors, windows, etc.)	--	27,328	12,286
5	Service Installations	--	10,071	36,343
	SUB-TOTAL		<u>\$ 88,571</u>	<u>\$ 61,486</u>
6	Construction Contractor's Profit 10%		<u>15,006</u>	<u>15,006</u>
	TOTAL CONSTRUCTION COST		\$ 103,577	\$ 61,486
7	Architect and Engineering Fee		6,003	6,003
8	Construction Supervision Fee		<u>3,001</u>	<u>3,001</u>
	TOTAL		<u>112,581</u>	<u>61,486</u>

Note: Contingencies of 10% have been anticipated but have been included in the overall 10% contingency for the entire loan.

92

DISBURSEMENT SCHEDULE
 NATIONAL GEOLOGIC SERVICE BUILDING
 (Cordobas in US dollar equivalents)

Months	Cordoba Costs	Dollar Costs	TOTAL
0 - 3	\$ 5,000	---	\$ 5,000
4 - 6	1,003	---	1,003
5 - 9	600	---	600
9 - 12	46,521	\$ 53,628	100,149
12 - 15	49,607	2,858	52,465
15 - 18	9,249	---	9,249
18 - 21	601		601
TOTAL	112,581	61,486	174,067

98

CONSTRUCTION SCHEDULE

METEOROLOGICAL STATIONS

		0	3	6	9	12	15	18	21	24	27	30	33	36	Months
Engineering	Detailed Plans														
	Preparation of Bid Documents, Advertising of Bids, Award of Contract														
Construction	Chinandega Corn Island Siuna Jinotega San Carlos San Juan del Norte														

95

COST ESTIMATE
METEOROLOGIC BUILDINGS
(Cordobas are in dollar equivalents)

1. Building Type "A" -- 38.50m²

<u>Item</u>	<u>Cordoba Costs</u>	<u>Dollar Cost</u>
Materials	\$ 771	---
Labor	429	---
Construction Fee	230	---
TOTAL	\$ 1,430	---

2. Building Type "B" -- 44.25m²

<u>Item</u>	<u>Cordoba Costs</u>	<u>Dollar Cost</u>
Materials	\$ 1,282	\$ 90
Labor	771	--
Construction Fee	572	--
TOTAL	\$ 2,625	\$ 90

3. Total Cost

<u>Item</u>	<u>Cordoba Costs</u>	<u>Dollar Cost</u>	<u>TOTAL</u>
4 Buildings Type "A"	\$ 5,720	\$ --	\$ 5,720
2 Buildings Type "B"	5,250	180	5,430
TOTAL	\$ 10,970	\$ 180	\$ 11,150

Note: Contingencies of 10% have been anticipated but have been included in the overall 10% contingency for the entire loan.

DISBURSEMENT SCHEDULE
METEOROLOGIC BUILDINGS
(CORDOBAS IN DOLLAR EQUIVALENTS)

<u>MONTH</u>	<u>CORDOBA COSTS</u>	<u>DOLLAR COSTS</u>	<u>TOTAL</u>
24 - 27	\$ 5,485	\$ 90	\$ 5,575
27 - 30	<u>5,485</u>	<u>90</u>	<u>5,575</u>
TOTAL	\$ 10,970	\$ 180	\$11,150

97

CONSTRUCTION SITE INFORMATION
FOR
GEOLOGICAL AND CARTOGRAPHIC BLDGS

Several letters, all in Spanish and on file at the AID Mission in Nicaragua, deal with the construction site of the buildings for the National Geologic Institute and National Cartographic Agency. A summary follows:

1. Minister of Finance and Public Credit to Director of the National Planning Office, January 22, 1965: By instructions from President Schick, five hectares (approximately twelve acres) of land have been officially destined for use for the Cartographic and Geologic buildings and for the future Institute of Natural Resources. The land is located at the old Xolotlán Airport directly east and across the street from the new clinic in construction for the National Social Security Institute. The land is national property and whose registration is referenced.
2. J. Cardenal H. y R. Lacayo Fiallos Company statement dated November 18, 1964: Describes the land as flat, sod, without trees or structures and describes the provision for public utilities.
3. National Urbanization Office to Diseños y Construcciones, S.A. Company dated November 18, 1964: The National Urbanization Office authorizes the construction site of the two buildings provided a request is made to reclassify this area from residential use to office and public building use.
4. Diseños y Construcciones, S.A. Company to National Planning Office dated January 19, 1965: The Company explains that the National Urbanization Office has authorized construction of the buildings and that upon presentation of the final building plans will authorize the reclassification to permit construction of public buildings as was done for the new National Social Security Institute Clinic located west and across the street from the building site.

98

5. Empresa Aguadora de Managua to National Geologic Service dated November 18, 1964: The water company states that adequate potable water is available within 800 meters of the building site and that new pipe will be laid to the site by March 1965.

6. National District to National Geologic Service dated November 20, 1964: The National District states that they will provide street paving, curbs, storm sewers, that an adequate connection for sewerage exists and that will provide all public utilities needed.

7. Empresa Nacional de Luz y Fuerza to National Geologic Service dated November 18, 1964: The National Light Company states that they will provide the electric power necessary within 30 days after payment is made for work order.

8. Department of Highways to National Cartographic Institute dated December 22, 1964: Details of sub-surfaces perforations of building sites. Four perforations were made to the depth of 15 feet. The tests show that the ground is satisfactory for the construction.

GON STATEMENT OF AVAILABILITY OF PROFESSIONAL PERSONNEL

Two letters, in Spanish and on file at the AID Mission in Nicaragua were received from Dr. Antfoco Sacasa Sarria, Director of the National Planning Office. The letters, dated January 22, 1965, file No. 57 and May 19, 1965, file No. 350, are directed to the Director of the AID Mission in Nicaragua and, in summary, state the following:

The implementation of the loan project calls for additional professionals to be hired (three hydrologic engineers, one water analyst, three geologists, seven soils experts, two pasture technicians, five forestry experts, four land use agronomists, one agricultural economist, one soils chemist and one supervisor for real property assessment). The National Planning Office has investigated, together with the agencies involved (Annex III, Exhibit 17) and found that these additional professionals are available in Nicaragua and states that they will be contracted as soon as loan funds are provided.

PROVISION FOR MAINTENANCE OF EQUIPMENT PURCHASED WITH LOAN FUNDS

1. Real Property Taxat on Improvement

The purchase of thirty vehicles is contemplated. \$120 per vehicle per year has been programmed for maintenance which will be performed under contract by a local repair shop.

2. Geology

Provision has been made to raise the present GON budget for vehicle maintenance from \$1,400 per year to \$2,800 per year, building maintenance from \$400 per year to \$2,800 per year, and equipment maintenance and replacement from \$1,200 per year to \$2,100 per year gradually over the three year period of the loan.

3. Soils and Vegetation

Provision has been made to raise the present GON bueget for vehicle and equipment maintenance from \$2,000 per year to \$6,000 per year.

4. Meteurology

Provision has been made for approximately \$120 per vehicle per year for maintenance; maintenance funds for building will be raised from the present GON budgeted \$280 per year to \$500 per year; and provision for maintenance and replacement of equipment will be provided as a newly budgeted item of \$1,000 per year.

5. Potable Ground Water

A newly created GON budget item will provide \$5,500 per year for vehicle maintenance and equipment maintenance and replacement.

101

6. Irrigation Ground Water

The GON budget has included maintenance of vehicles in the provision of \$1,000 per year per vehicle for operating and maintenance costs.

7. Mapping

The GON budget includes \$120 per vehicle per year for maintenance and \$15,887 per year for building maintenance and equipment maintenance and replacement. The IAGS area mechanic trains and assists the GON mechanics in vehicle maintenance. The IAGS instrument repair shop periodically inspects and maintains precision instruments on a reimburseable cost basis. Both the Wild Co. of Switzerland and the Zeiss Co. of Germany provide periodic maintenance of the heavy photogrammetric equipment.

8. Surface Water Investigation

The GON plans to increase its present budget for maintenance of vehicles and equipment from \$700 per year to \$4,050 per year.

PROJECT ADMINISTRATION

A. Project Policy, Direction and Supervision (See Organization Chart, Page 3A)

Primary responsibility for this project will be vested in the National Economic Council (NEC) of the GON, which will provide the overall policy and direction. The Director of the National Planning Office (NPO), which is the Technical Secretariat and executing agency of the National Economic Council, will provide the continuing administrative and technical supervision required.

The principal functions of the NEC are the following:

1. Develop medium and long-range National Plans for economic and social development.
2. Formulate, at any time, specific social and economic sectoral and regional programs, plans and projects.
3. Keep abreast of and coordinate on-going programs and projects carried out by all agencies of the GON, the National District and Municipalities, which are related to National plans of a regional or sectoral nature.
4. Periodically review and evaluate all properly approved program plans and projects which are underway in order to make pertinent recommendations.
5. Indicate the priorities for public investment.
6. Carry out studies in order to permanently maintain the tax legislation in accordance with modern principles.
7. Assure the establishment of efficient methods for the collection and control of the public income.
8. Keep abreast of the technical assistance needs of all agencies of the GON with a view toward procuring required services.
9. Study the economic and financial legislation presently in effect with a view toward

determining those areas requiring modification in order to adapt it to the needs for the social and economic development of the country.

10. Study any other matters which may be submitted by the President of the Republic, assigned by Law or which the NEC considers necessary to fulfill its legal functions.

In order to meet the objective of developing social and economic plans the NEC relies upon the NPO, which also acts as the Technical Secretariat of the NEC. The NPO has the following functions:

1. Carry out economic and technical studies essential to the formulation of social and economic development plans.
2. Formulate such plans in accordance with the guidelines provided by the NEC.
3. Keep the NEC informed as to the execution of plans and projects approved by the GON and suggest to the NEC such modifications as may be deemed necessary.
4. Establish positions or present opinions on technical matters submitted by the NEC and carry out specific surveys or investigations as indicated by the NEC.
5. Carry out any other activities the NEC may require or which the NPO may consider essential to successfully fulfilling its functions.

The NEC is composed of the Ministers of Economy, Finance, Public Works, and Agriculture, the Presidents of the Central and National Banks, the President of the National Agrarian Institute and the National Development Institute (INFONAC) and a representative of the Minority Party. The Council contains the executive skills required to set the policies and give overall direction to this loan project.

The implementing arm of the Council is the NPO. It is headed by Dr. Antfoco Sacasa, a well trained and experienced administrator. He is assisted by 10 Nicaraguan professionals, 22 University Assistants and 30 administrative, secretarial or housekeeping employees. The

NPO has a budget of ₡1,906,300 for CY 1965 (US\$272,300 equivalent).

The present organization of the Council and the NPO is comparatively recent. The first GON central planning body, the NPO, was established by Decree in January, 1962. The relationship between the Council and the NPO was basically changed by the enactment of a Decree in November, 1963 which gave the national planning mechanism its present form.

The Council and the NPO are assisted by the Joint Programming Mission for Central America (JPM) in the preparation of aggregate national plans, as well as some sectoral plans. AID assistance concentrates on the formulation and implementation of project and sectoral plans, under a contract with United Research-Louis Berger, and the related training of Nicaraguan technicians.

Coordination of national planning and its relation to regional planning is achieved through the NPO and the Council. The Vice Minister of Economy for Central American Integration assists in coordinating national with regional plans.

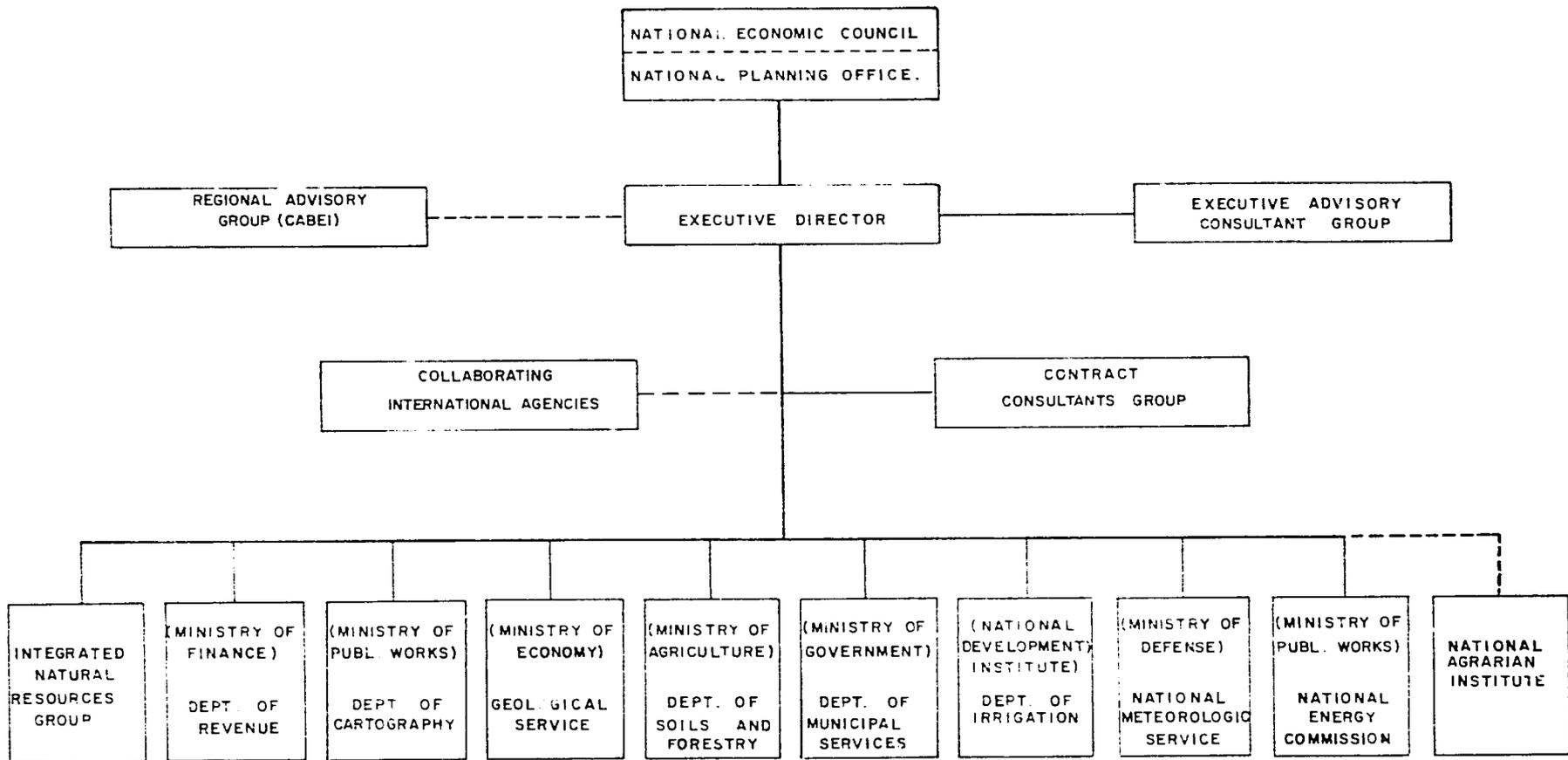
B. Project Execution

The NPO will employ an Executive Director, acceptable to the NEC and AID, who will administer the project. The Director will be provided with a statement of the functions of his office, a job description clearly outlining responsibilities and duties and providing the authority required to execute the project.

Under the general direction of the NEC and the supervision of the NPO, but with full powers to carry out and execute the project, the Executive Director will be responsible for:

- 1) Developing integrated plans for the overall program including but not limited to such things as master and detailed work plans, financial plans, training plans, and such other administrative or technical plans as may be required.

105



106

- 2) Establishing a cohesive project organization with the capabilities to achieve program objectives by providing existing organizations with improved facilities, personnel and technical assistance.
- 3) Coordinating the work of the various GON agencies, especially as regards the priority of activities vis-a-vis the efficient collection and use of project data.
- 4) Developing solutions to administrative and technical problems, as arising, through the effective use of available advisory and consultative bodies or individual advisors and consultants.
- 5) Providing a system of communication among the various GON agencies involved in the project execution so as to maintain each one fully informed of significantly related developments.
- 6) The timely preparation and evaluation of progress reports of all kinds, administrative or technical, so as to maintain project control.
- 7) Control and expenditure of project funds and the maintenance of adequate related records.

The services of an Executive Advisory Group under contract will be provided the Executive Director. A three-man team of two technicians and a fiscal ^{control} officer is presently contemplated. The scope of work of this group will include, but not necessarily be limited to, the following:

- 1) Preparation of a detailed work plan for all activities.
 - 2) Continuous development of recommendations for the planning, integration and execution of all phases of the Project.
 - 3) Preparation of recommended scopes of work and approval of all activity contracts.
- 10-7

- 4) Supervision of procurement and acceptance of the delivery of all technical equipment.
- 5) Certification of performance under all AID-financed contracts.
- 6) Approval of requests for disbursements under AID contracts and assistance in preparing supporting documentation for submission to AID.
- 7) Assistance in preparation ^{or review} of all required reports; progress, quarterly, annual, shipping, final, financial, etc.
- 8) Provide general advice and assistance to the Executive Director and perform such other duties within the Group's capabilities as the Executive Director may require for the successful execution of this project.

The CABEL Advisory Group will act as the technical agent to assure regional comparability of data. An arrangement between CABEL and the GON will be worked out whereby the GON out of its own funds will pay CABEL for technical services already performed or to be performed in connection with this project and/or program.

The role of CABEL in this matter contributes to U. S. objectives in Central America. The responsibility of CABEL 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, and pressure brought to bear for reforms.

CABEL should gain experience and technical proficiency through this procedure. Also greater rapport should be developed between CABEL and local institutions.

The Collaborating International Agencies represents another pool of talent which the Executive Director can use to advantage in carrying out this project. Generally speaking these advisors, from such agencies as AID, WMO, FAO, IAGS, IRS, etc. will provide assistance to the

103

specific activities being carried out by the various GON agencies shown on the Organization Chart. However, it is assumed that they would provide requested assistance to the Executive Director, time permitting.

The "Contract Consultants Group" will provide specific technical assistance to the GON implementing agencies. Contractors will be hired, as needed, from project funds to carry out required project activities.

C. Activity Execution

Activities requiring coordination between the collectors and users of the data gathered will be carried out by the "Integrated Natural Resources Group" under the immediate direction of the Executive Director.

Other complementary activities will be carried out by the specific agency involved, under the general direction of the Executive Director, as follows:

- 1) Improvement of the Real Property Tax System by the National Bureau of Revenues (See Organization Chart, Page 9).
- 2) Geological and Mineral resource activities by the National Geological Service (See Organization Chart, Page¹⁰).
- 3) Certain activities related to Soils and Vegetation by the Ministry of Agriculture (See Organization Charts Pages 11 and 12. .
- 4) Meteorological activities by the National Meteorological Service (See Organization Chart, Page 13).
- 5) Activities related to Potable Ground Water by the Department of Municipal Services (See Organization Chart, Page 14).
- 6) Activities related to Ground Water for Irrigation by the National Development Insti-

tute - INFONAC (See Organization Chart, Page 15).

- 7) Basic and Special Mapping by the National Bureau of Cartography (See Organization Chart, Page 15).
- 8) Activities related to Surface Water by the National Energy Commission (See Organization Chart, Page 17).

All of these GON agencies have been thoroughly and closely examined vis-a-vis their capabilities to carry out project activities. Their physical plants, equipment, installations, personnel, approved budgets and other related factors have been analyzed in depth. The proposed Project Administration is designed to effectively use present capabilities and where these will not meet activity, project or program needs to develop them through this loan project, on a temporary or permanent basis as deemed advisable.

D. Administrative Conflicts

It is recognized that achieving effective administration of this project will probably represent the greatest barrier to successfully meeting activity, project and program targets and goals. The number of GON agencies involved will make program administration difficult at best. In addition the International Agencies, Contract Technicians and the Contract Advisory Group will further complicate the management functions. The Executive Director, therefore, must be supplied with a clear statement of his responsibilities in carrying out the project. Still more important is that he be provided the required authority and be held accountable by superior authority. We feel that the project organization provides the vehicle to overcome the predictable administrative difficulties.

The GON Agencies implementing the project are all represented on the NEC, so that the

10

plans, policy and direction will be coordinated at the top during all phases of the project. If conflicts arise between implementing agencies the Executive Director has a number of recourses to solve problems, as follows:

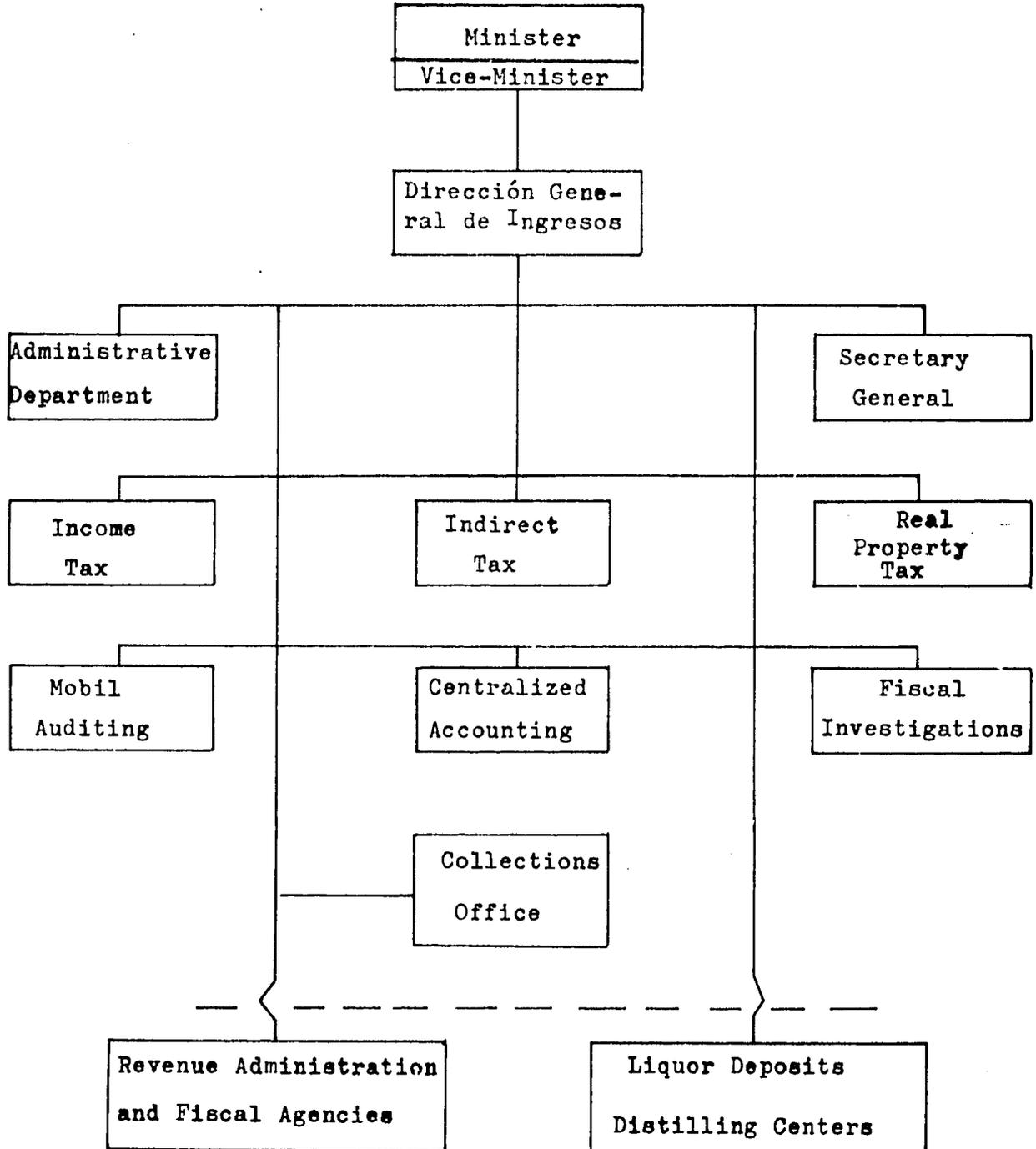
- 1) Personal persuasion.
- 2) A staff resolution made jointly by the heads of the GON implementing agencies.
- 3) A staff resolution made jointly by the superiors of the implementing agencies (Generally Ministers).
- 4) Referral to the Director of the National Planning Office.
- 5) Referral to National Economic Council (NEC).

The NEC, without a doubt, is the Nicaraguan group which brings together the most influential people in the country. The NEC is the Borrower and as such remains constantly in touch with this project.

It has reviewed all phases of the project proposal and with AID will pass upon the qualifications and contracting of the Executive Director.

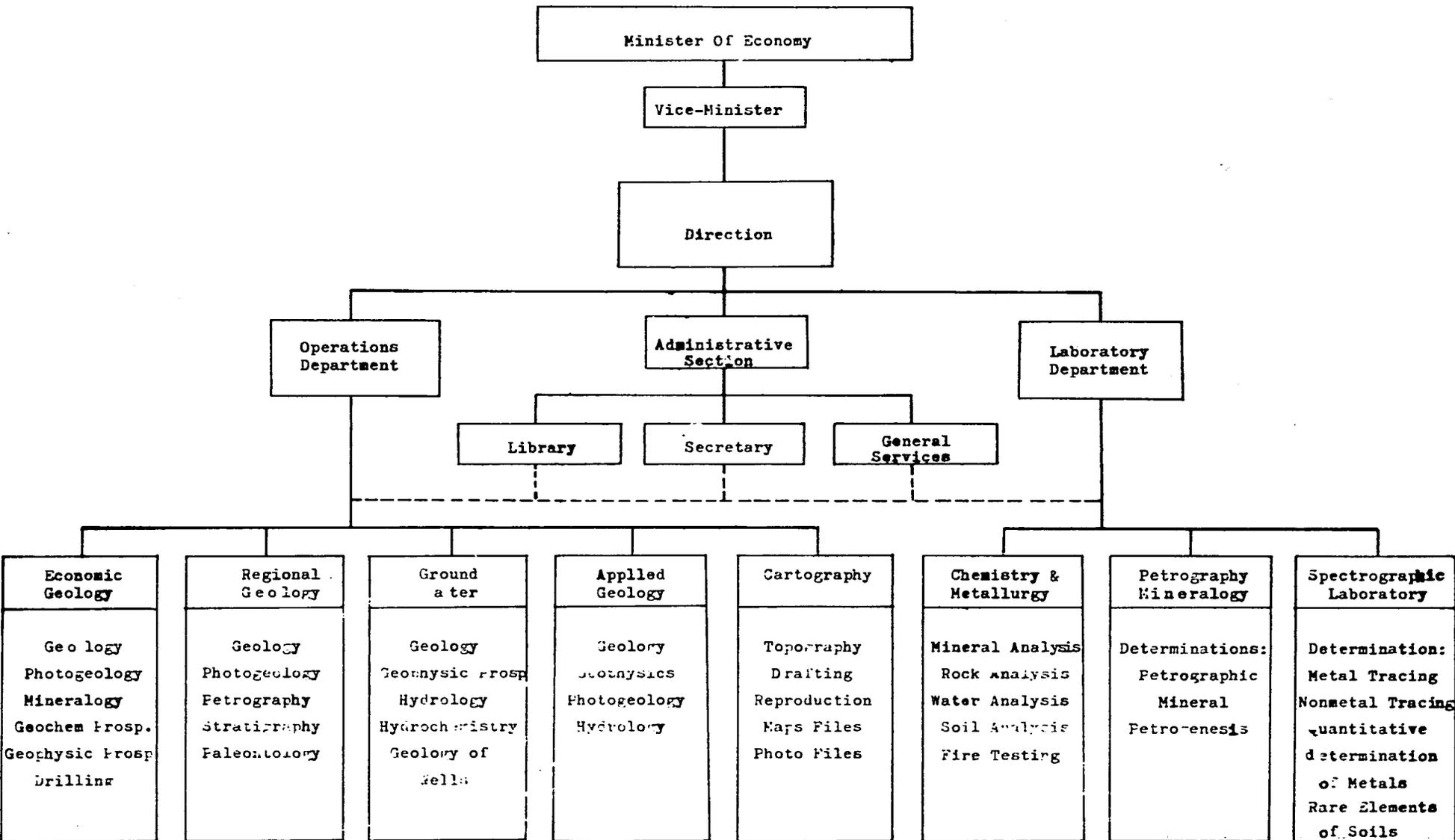
A consensus of the NEC is sufficient basis, it is felt, to resolve any conflict that may arise.

MINISTRY OF FINANCE
ORGANIZATION CHART. DIRECCION GENERAL DE
INGRESOS

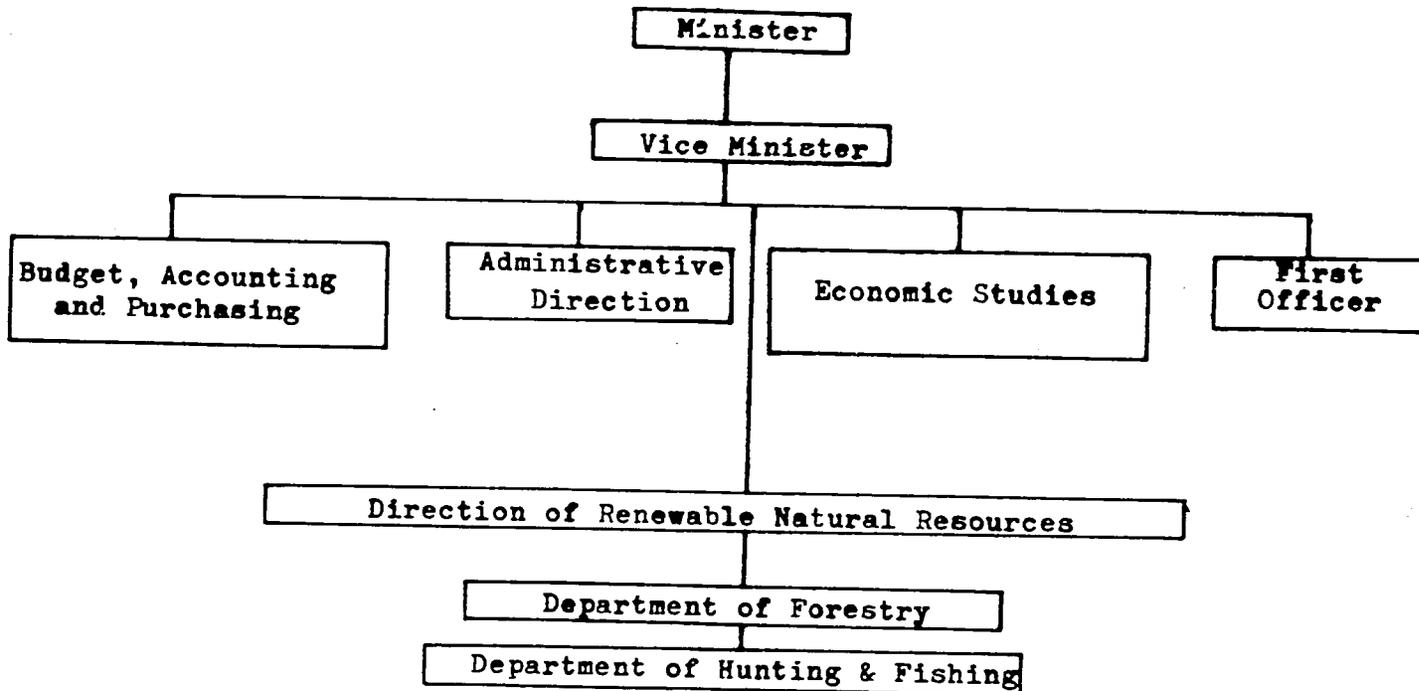


112

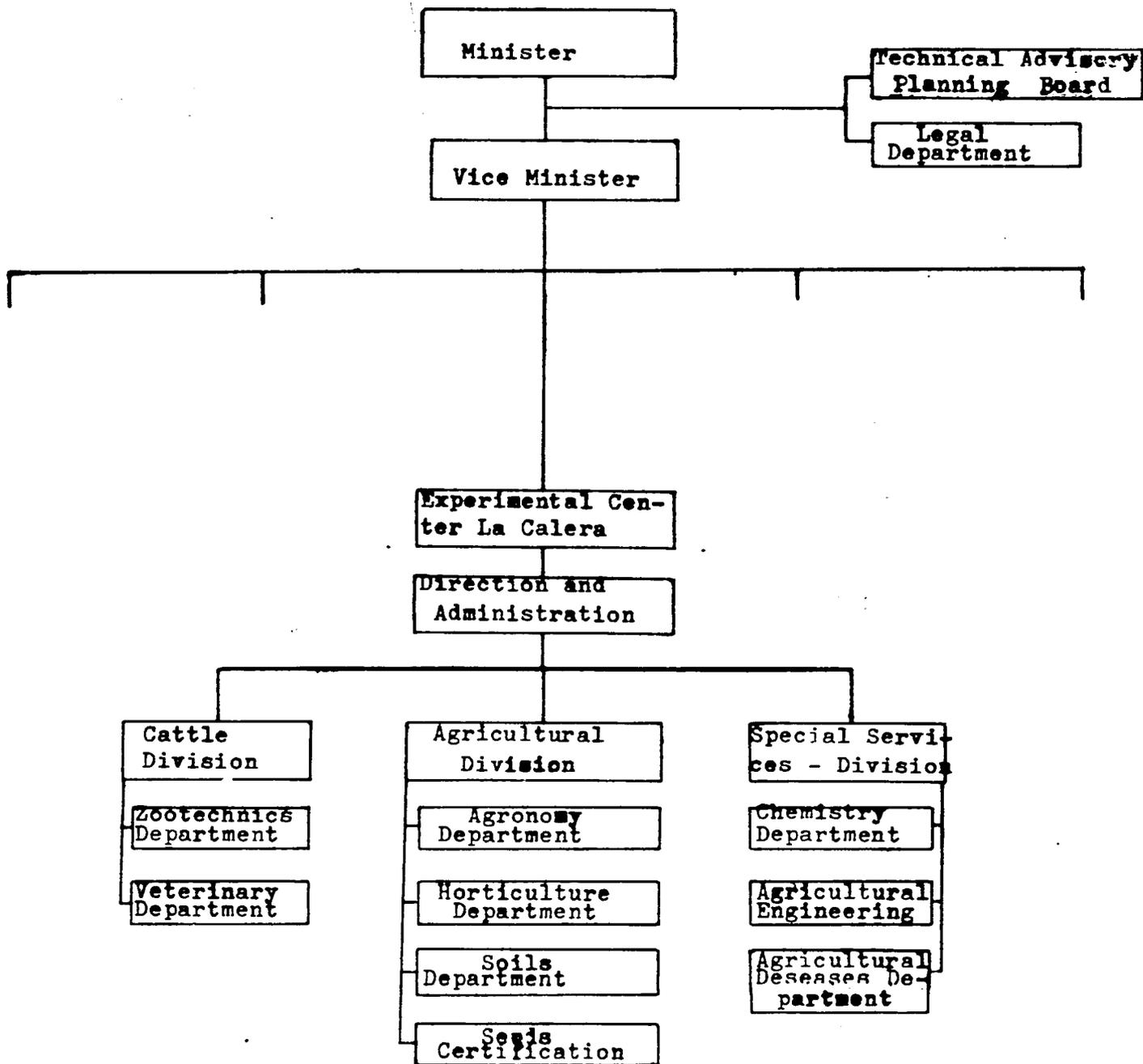
ORGANIZATION CHART. SERVICIO GEOLOGICO NACIONAL



MINISTRY OF AGRICULTURE
DIRECTION OF RENEWABLE NATURAL RESOURCES
ORGANIZATION CHART.

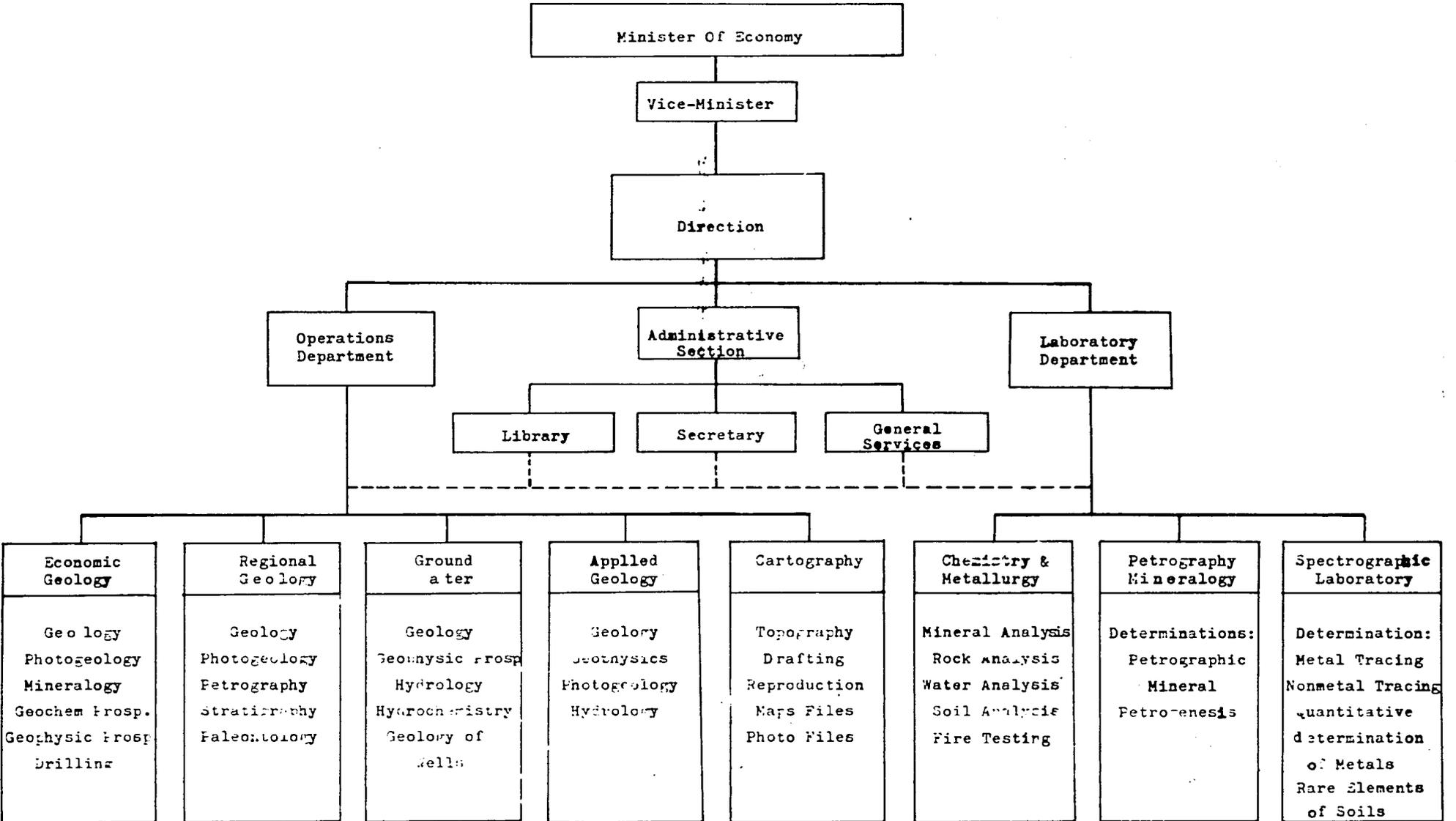


114



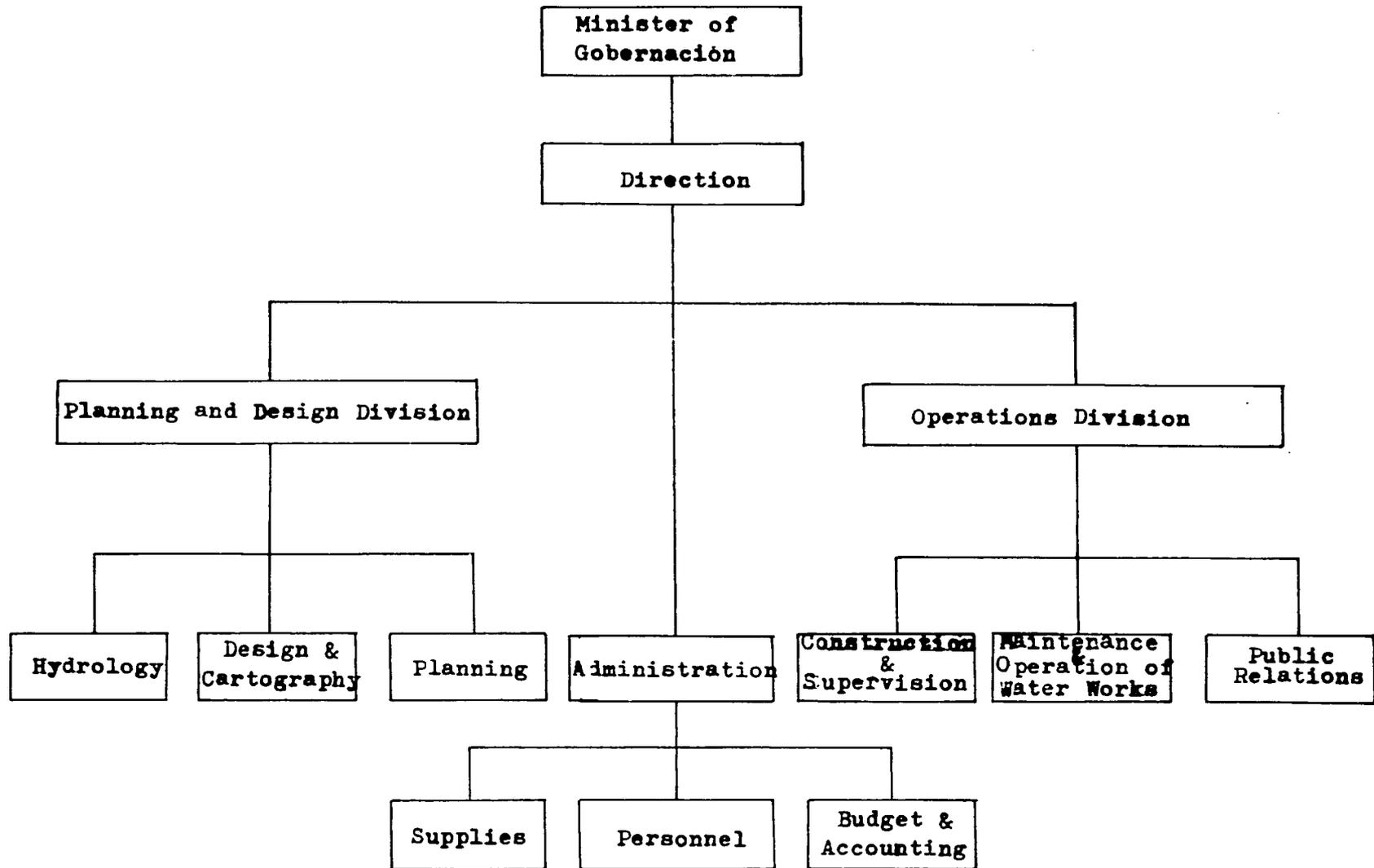
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ORGANIZATION CHART. SERVICIO GEOLOGICO NACIONAL



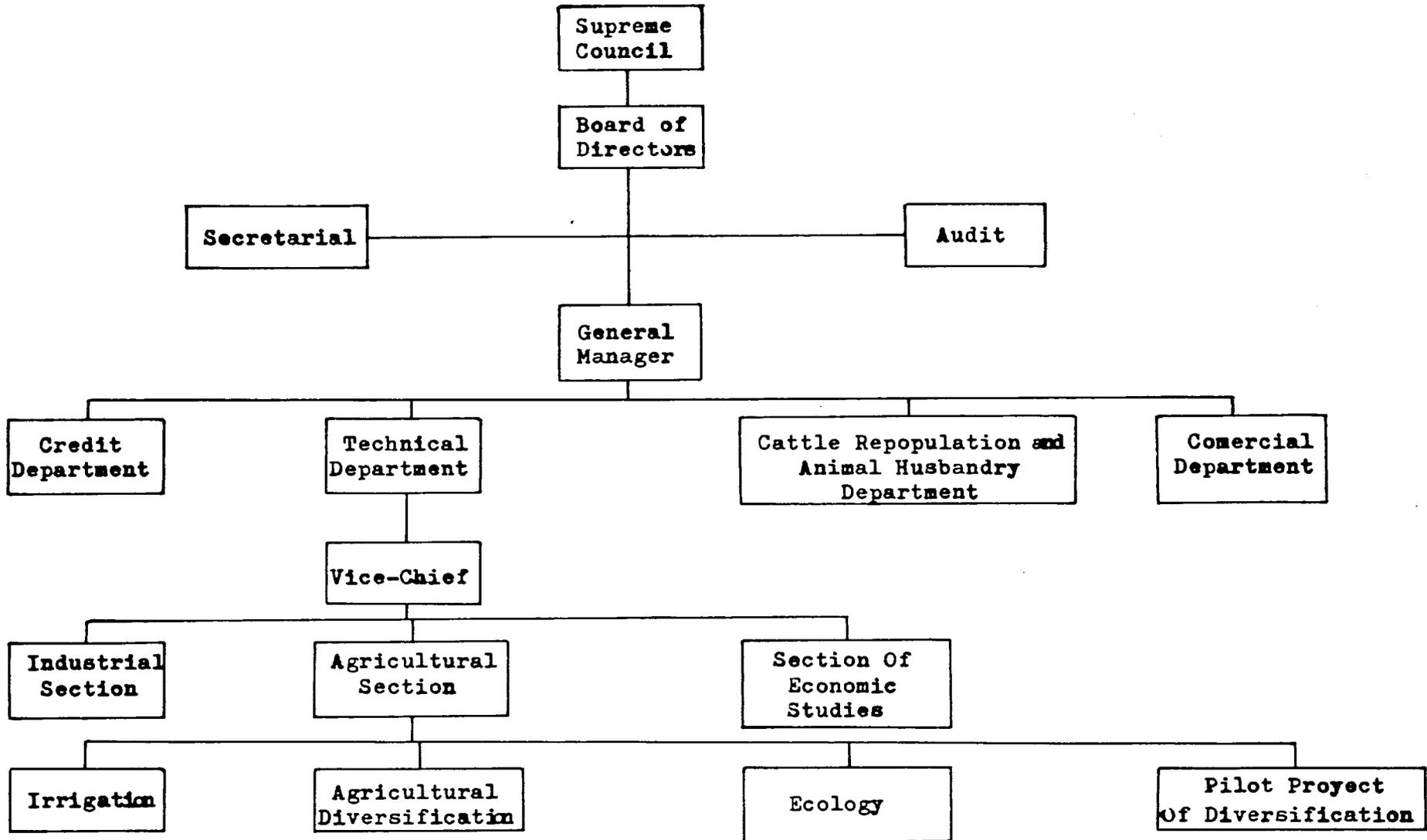
116

ORGANIZATION CHART.
DEPARTAMENTO NACIONAL DE SERVICIOS MUNICIPALES



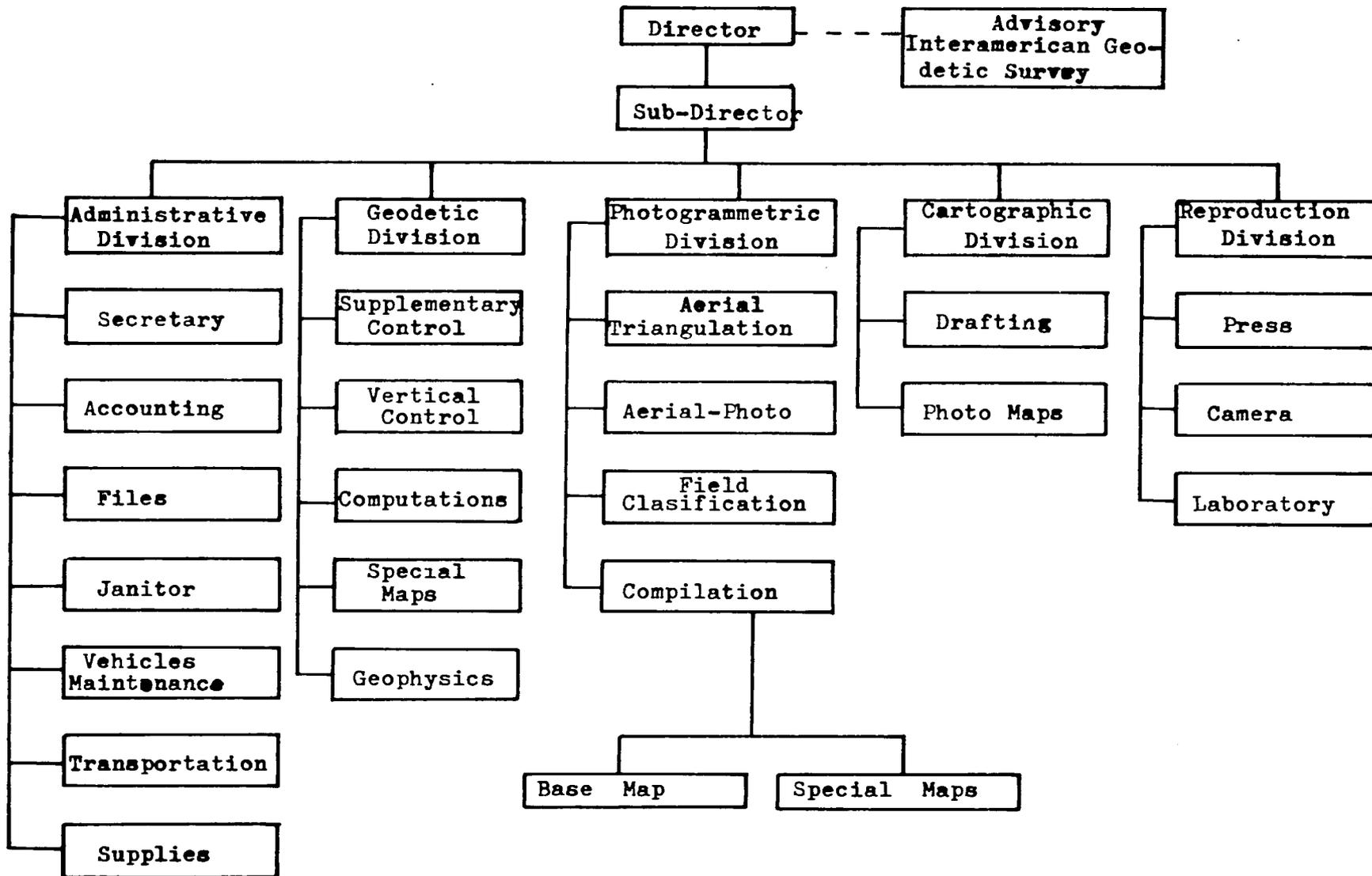
117

ORGANIZATION CHART OF INSTITUTO DE FOMENTO NACIONAL (SHOWING TECHNICAL DEPARTMENT SECTIONS)

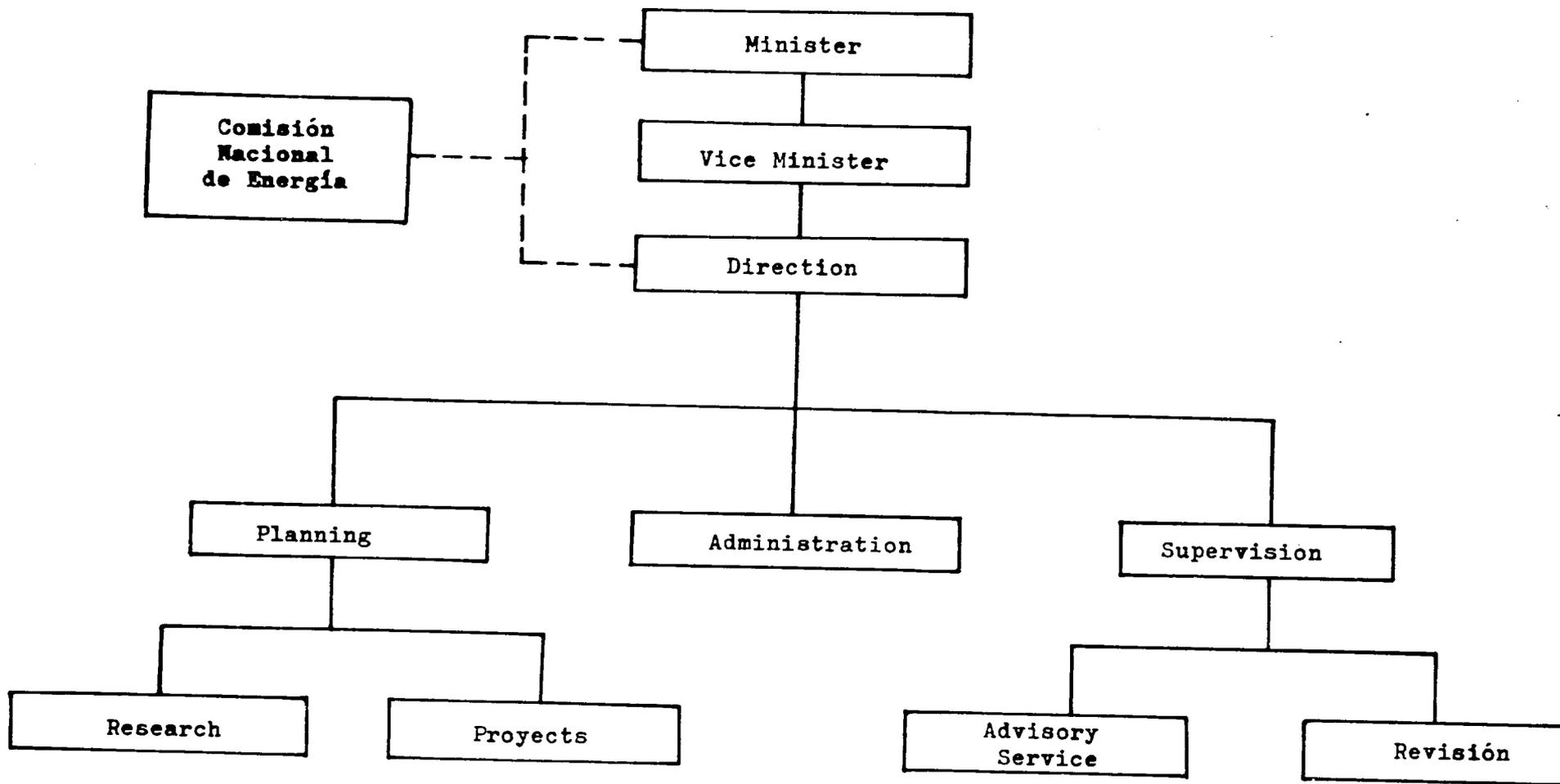


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ORGANIZATION CHART
 DIRECCION GENERAL DE CARTOGRAFIA
 MINISTERIO DE FOMENTO Y OBRAS PUBLICAS
 NICARAGUA

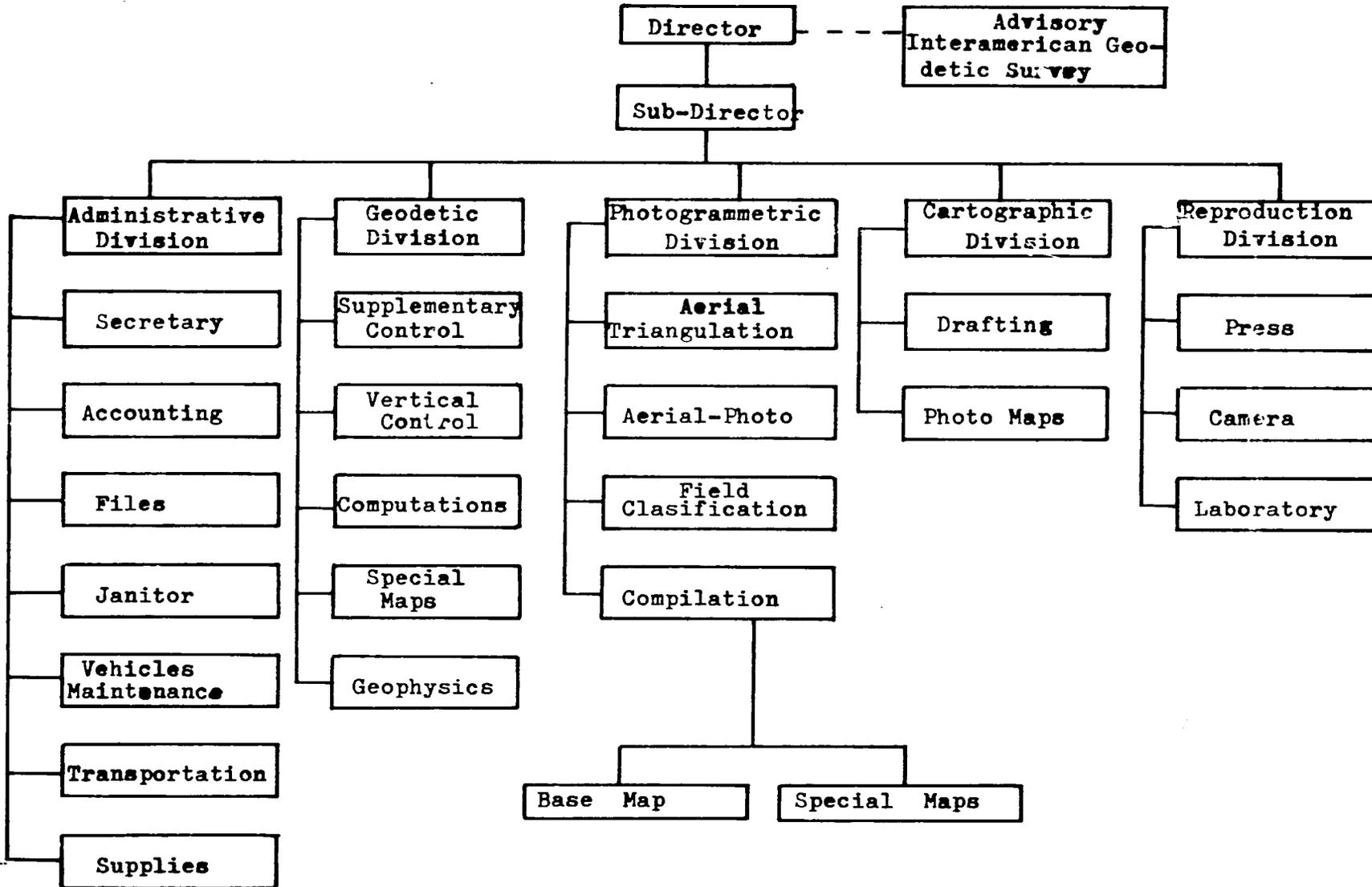


ORGANIZATION CHART.
COMISION NACIONAL DE ENERGIA

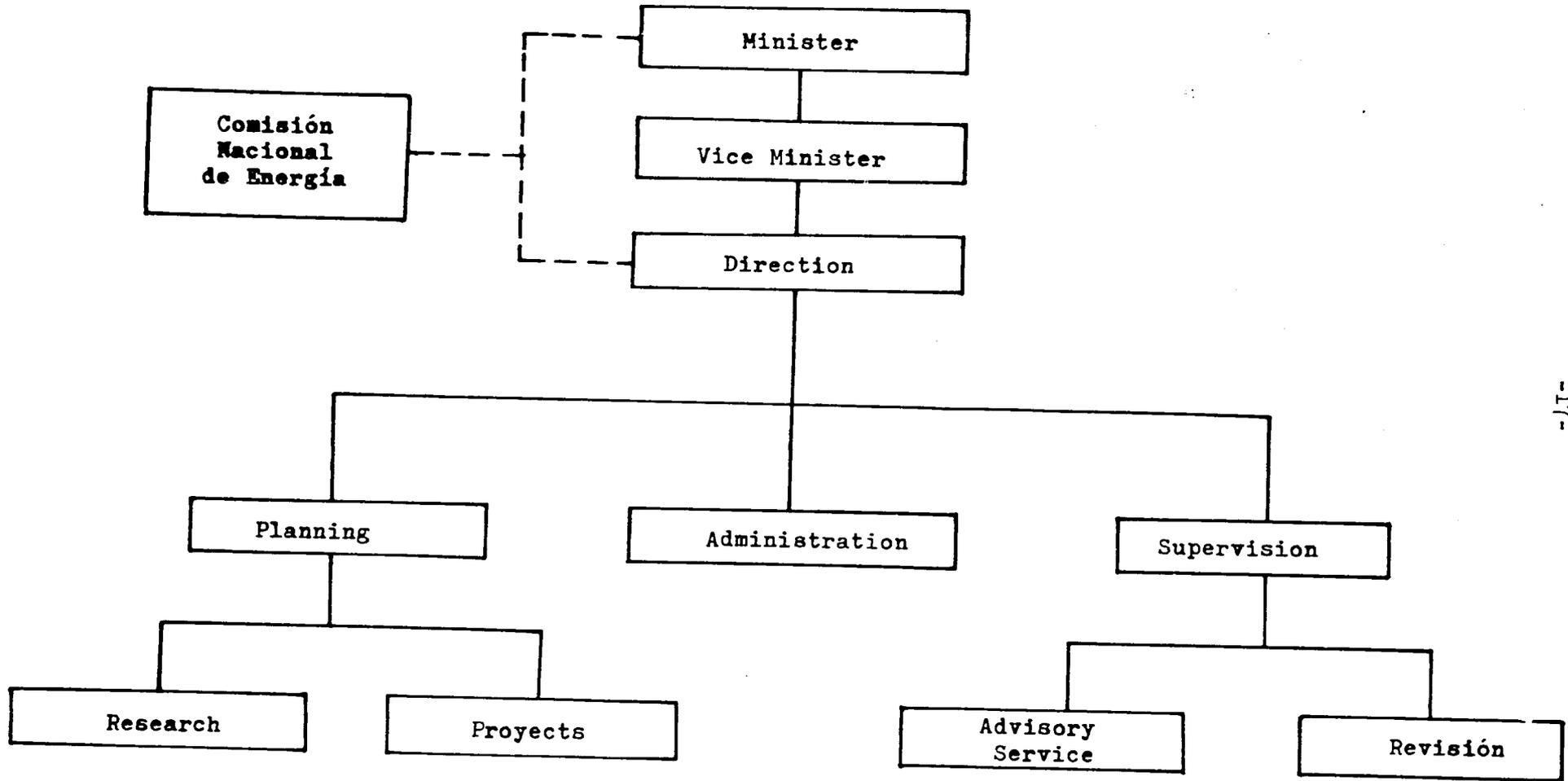


120

ORGANIZATION CHART
 DIRECCION GENERAL DE CARTOGRAFIA
 MINISTERIO DE FOMENTO Y OBRAS PUBLICAS
 NICARAGUA



ORGANIZATION CHART.
COMISION NACIONAL DE ENERGIA



12/2

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ANNEX V, 1 of 2

LOAN AUTHORIZATION

(Draft)

Provided from: Alliance for Progress Funds

NICARAGUA: TAX IMPROVEMENT AND NATURAL RESOURCES INVENTORY LOAN

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 I, Chapter 2, Title VI, Alliance for Progress, to the Government of Nicaragua (Borrower) of not to exceed five million four hundred thousand United States dollars (\$5,400,000) to assist in financing the costs of the accelerated portion of Borrower's long-term real property tax improvement program and natural resources inventory surveys ("Project").

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 outstanding principal of the loan interest of one (1) percent per annum during the grace period and two and one-half (2½) percent per annum thereafter.
2. Other Terms and Conditions:
 - (a) Equipment, materials and services (except shipping and marine insurance) financed under the loan shall have their origin in and be procured from the United States or member countries of the Central American Common Market. Shipping financed under the loan shall be procured from the United States, and marine insurance financed under the loan shall be placed in the United States with a company authorized to do marine insurance business in any state of the United States.
 - (b) United States dollars utilized under the loan to finance local currency costs shall be made available to Borrower or its designee through appropriate procedures and shall be used only for procurement in the United States.

UNCLASSIFIED

123

- (c) Prior to any disbursement, Borrower shall designate an appropriate agency of Borrower to have exclusive responsibility for land appraisal.
- (d) The following shall be conditions precedent to any disbursement for other than (i) consulting services for the detailed work plan for carrying out the Project and (ii) engineering plans and specifications for the geology and cartographic buildings:
 - (1) Adoption of legislation providing that the title holder is responsible for paying on a withholding basis the entire tax on the full value of the property held in his name.
 - (2) Adoption of legislation providing for in rem enforcement of property taxes and establishment of an organizational framework satisfactory to A.I.D. to enforce such legislation.
- (e) Borrower shall adopt within a reasonable time legislation incorporating into law appraisal standards based on the recommendations set forth in the appraisal manual developed pursuant to the Project.
- (f) After a reasonable amount of land has been appraised pursuant to the Project, Borrower shall initiate proposed legislation with respect to revising the rate structure for real property taxation.
- (g) Borrower will use its best efforts to assure that the physical data produced pursuant to the Project will be combined with present and future economic and sociological data in a form that is well adapted to use for projects.
- (h) The loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

Deputy U. S. Coordinator
Alliance for Progress

Date