

PUBLIC

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

REGIONAL

INTER AMERICAN TELECOMMUNICATION NETWORK

TC6610019

PLAN OF OPERATIONS

OCTOBER, 1966

PLAN OF OPERATIONS
NON-REIMBURSABLE TECHNICAL ASSISTANCE FOR ACTIVITIES OF IDB
IN CONNECTION WITH THE INTER-AMERICAN TELECOMMUNICATIONS
NETWORK AND TELECOMMUNICATIONS PROJECTS
INTEGRATING THE VARIOUS COUNTRIES OF LATIN AMERICA

SECTION I - Background

The second meeting of the Comisión Interamericana de Telecomunicaciones (CITEL) was held in Washington from the 25th of October to the 2nd of November, 1966. This meeting was attended by representatives of the Bank, and discussions were held pertaining to activities in which the Bank might assist in connection with the development of the Inter-American Telecommunications Network (ITN). The Integration Advisor reported fully on this meeting in his memorandum to the President of IDB of 7 November 1966.

Resolution 33/66/CITEL adopted by the meeting resolved to ask the Inter-American Development Bank, through the Pre-Investment Fund for Latin American Integration, to examine the possibility of organizing and directing the studies necessary to prepare a project for the ITN, with the understanding that those studies would recommend the most modern techniques in this field of telecommunications. The Resolution also recommended that the Bank obtain the cooperation of the interested countries through CITEL which has organized the following sub-groups of government experts of high caliber:

Group I - Central America, Mexico, Panama

Group II - Colombia, Ecuador, Haiti, Dominican Republic, Venezuela

Group III - Argentina, Bolivia, Brazil, Chile, Paraguay, Perú, Uruguay.

It also proposed during the discussions that the Bank sponsor a meeting of these sub-groups early in 1967, at which time a discussion could be held regarding the terms of reference for a general plan of operations to determine the extent of the pre-investment studies for the ITN.

This meeting with the Officials of CITEL was held in Washington on February 6-8. The Program developed at this meeting is the subject of this Plan of Operations and is explained below.

SECTION II - The Project

Phase I

The purpose of this plan of operations is to provide technical assistance

funds for the Bank's participation in the development of the ITN. The requirements enumerated in this plan of operations pertain to the first phase of the project, which is proposed to be undertaken during the first year.

The requirements for the second phase of the development of the ITN will not be a part of this document. Although the first phase primarily consists of a viability study, it also calls for the concurrent preparation of technical recommendations and specifications for the standardization of the requirements of the ITN. For the purposes of clarity the explanation of the first phase is divided into two parts, as follows:

Part I - The Bank will undertake in collaboration with the officials of CITEI, to prepare the necessary telecommunications feasibility studies which are required in the establishment of the ITN. The work will be accomplished through the previously established Program Management Group of the Bank (See Plan of Operations Document No. ATN/TF-675), to which the Bank has assigned \$ 50,000. This plan of operations covers the first phase, and is estimated to cost approximately \$ 250,000, and is tentatively scheduled to be completed within 9 to 12 months from the commencement of the work. These studies will require engaging consultants and consulting firms, as well as other services. The final decision as to the manner in which the study will be conducted, will be made by the Bank. The Program Management Group will produce a plan which will delineate the extent of systems, routing, switching connections, and signaling system and numbering plan for the total region. In the development of the plan recommendations as to connections between countries and modes of transmission will be made. It is estimated that this part of the plan will cost approximately \$ 200,000.

Part II - Part II of this plan is the preparation of the technical specifications and design criteria to be utilized in the network implementation. The cost of this part of the project is included in the overall cost of the First Phase as shown above in Part I. It is estimated that this priority portion of the Plan will be completed during the first 3 months of the work. It is also envisioned that at the completion of this work a general meeting with the members of CITEI will be called at a place to be determined later in order to consult regarding the standards mentioned above. The general recommendations of the committees of the International Telecommunications Union will be used in the basic development of the specifications. It is estimated that this part of the plan will cost approximately \$ 50,000.

Phase II

Part I - This part would include the continuance of the Program Management Group during the second phase. It is expected that the cost to maintain the Group as well as other miscellaneous costs are estimated to be approximately \$ 115,000.

These funds will be requested later in 1967 for the 1968 budget of expenses and are explained here only to provide a better understanding of what is expected to be accomplished under the total project.

Part II - The preparation of the detailed plans of the different parts of the Inter-American Telecommunications Network will be executed under the direct responsibility of the nations and will be coordinated through the Program Management Group with CITEI and the Sub-Regional Groups. These plans must conform to the general program approved in the first phase.

The objective of the second phase is to provide more complete technical-economic feasibility plans or studies which might be used by the various countries to present to the IDB or other institutions, requests for loans to facilitate the financing of their respective parts of the Inter-American Telecommunications Network and other complementary telecommunications projects. Preliminary cost for consultants, consulting firms, is estimated to be approximately \$ 1,000,000 making the total cost of Parts I and II of this Phase II, \$ 1,115,000.

Participant Organizations

A general discussion has been held between the United Nations Representatives and the Bank that Phase II of the Project will include funds from the United Nations, and Experts from Member Countries, as well as funds from the Bank. As a result of these discussions tentative agreement has been reached that the foreign currency cost for the second phase of the project will be financed by the United Nations Development Program and will amount to approximately \$ 1,000,000 and the contribution from member countries will be in the form of paying for experts, is estimated to be approximately \$ 750,000. Total contribution by the Bank, including studies already conducted, will amount to approximately 750,000 dollars as outlined below:

Page Study	\$ 250,000
First Phase Central Group	\$ 50,000
This Pre-investment Study	\$ 250,000
1) Manufacture Study	\$ 50,000
2) Greta Seminar - Chile	\$ 35,000
Second Phase Central Group	\$ 115,000
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Total	\$ 750,000

SECTION III - Justification

As a result of the ITU Conference held in Santiago in 1965, the CITEI Conference held in Washington in 1966, recommendations of the Page Communications Engineers Study in its Report to the Bank on Space and Terrestrial Telecommunications in Latin America, and information developed by the Bank's personnel working in connection with loan applications from member countries, it is felt that a project of this type is essential to the economic integration of Latin America. The Page Study contains data

- 1) Study of Latin American capability in the production of electronic equipment.
- 2) Training of telecommunications planning engineers - Santiago - Chile

indicating that the realization of the ITN should consist of existing high frequency networks, radio relay systems (microwave), submarine cables, and satellite communications. The study also shows that satellite communications become economically feasible when great areas of landmass or sea need to be spanned with high quality systems of adequate capacity. This feasibility study will recommend terrestrial connections between adjacent countries and connections between distant countries.

SECTION IV - Organization and Duration

The pre-investment study for the development of the ITN will be conducted under the supervision of the Program Management Group within the Bank. This Group will coordinate its work with the President of CITEL, the representatives of the regional sub-groups, and the various telecommunications agencies of the member countries. To make this study, it is envisioned that consultants and/or consulting firms may be employed by the Bank.

Due to the limited time agreed upon for the preparation of the fundamental plan for the ITN, a method must be devised whereby individual consultants may be engaged quickly. A list of technical specialists that could be used in this project is being compiled by the Project Analysis Division.

Technical experts from the telecommunications agencies of member countries or their regional organizations and experts who work under the ITU may also be utilized by the Bank in making the Study. The primary responsibility of these individuals and/or entities will be to supply to the Program Management Group within the Bank information whereby the Group will be able to complete the fundamental plan for the ITN. It is expected that this plan will be completed within a 9 month period. This schedule will only be possible with total cooperation from the organizations and/or countries mentioned above or it will have to be extended approximately 3 months.

SECTION V - Cost Estimate

The primary cost of the project will be the engaging of consultants to assist the Program Management Group in the development of the plan. The number of consultants required and the man/months of consultant effort shown below are based on man/months rates currently being charged in the industry. The estimated type and number is shown below;

a) Multiplex Engineer - 9 man/months	\$ 27,000
Radio Relay (microwave) Engineer - 10 man/months	\$ 32,000
Traffic Engineer - 5 man/months	\$ 15,000
Transmission Engineer - 7 man/months	\$ 21,000

Systems Engineer - 7 man/months	\$ 21,000
Plant Extension Engineer - 4 man/months	\$ 12,000
Toll Switching Engineer - 11 man/months	\$ 33,000
Financial and Management Specialist/Economist 6 man/months	\$ 18,000
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SUB-TOTAL	\$ 179,000
b) Transportation and Travel Expenses	\$ 40,000
c) Miscellaneous Expenses	\$ 21,000
d) Contingency	\$ 10,000
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TOTAL	\$ 250,000

The cost breakdown and the number of man/months estimated above will be prepared in greater detail by the Program Management Group during its first phase of work. The majority of the expenditures on the hiring of consultants is expected to be in foreign currency, and local currency will be used when local expenditures are necessary.

SECTION VI - Financing

The Plan of Operations for this project will require funds from the Non-Reimbursable Technical Assistance Budget of the Bank's own resources in the amount of \$ 100,000 and \$ 150,000 from the Non-Reimbursable Technical Assistance Budget of the Social Progress Trust Fund, for 1967. ("Pre-Investment Fund").

SECTION VII - Department and Division Responsibility

The implementation and coordination of the Plan of Operations for this project will be the responsibility of the Operations Department and will be supervised by the Project Analysis Division. Close coordination with the Office of the Integration Advisor and interested Divisions of the Bank is a prime requirement of the Plan of Operations. Pertinent data pertaining to the availability of existing information relating to telecommunications, will be obtained by the Program Management Group in preliminary meetings with the Office of the Integration Advisor.

Reports

Quarterly reports from the Program Management Group outlining the efforts in the development of these studies will be made to the pertinent authorities of the Bank. A final report of the first phase of the operation will be completed at the end of the 9 to 12 month period envisioned in this Plan of Operations.

SECTION VIII - Recommendations

With the approval of the Technical Assistance Committee, the Department of Operations submits the respective proposed resolutions to the President of the Bank for presentation, at his discretion, to the Board of Executive Directors for approval.

ANNEXES

Inter-American Telecommunications Network. First consultative meeting on the preinvestment study	(GN-344)
Telecomunicaciones en América Latina	(GN-314-1)