

PD-AAU-744  
30404

**A STUDY OF USAID ASSISTANCE  
TO BRAZIL: 1961-1974**

**FINAL REPORT**

in fulfillment of

**IOC # PDC-I-1406-01-4088-00  
Work Order # 1**

**Submitted to:**

**Bureau for Program and Policy Coordination  
Center for Development Information and Evaluation  
U.S. Agency for International Development  
Washington, D.C.**

**Submitted by:**

**Checchi and Company  
1730 Rhode Island Avenue, N.W.  
Washington, D.C. 20036-3193**

**June 2, 1986**

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## LIST OF ACRONYMS

- AID - Agency for International Development
- AIFLD - American Institute for Free Labor Development
- BNE - Bank of the Northeast
- BPR - Bureau of Public Roads
- CERTA - Regional Center for Administrative Training
- CET - State Council of Technology
- CNAE - National School Feeding Campaign, Ministry of Education and Culture
- CPPQ - National Research Council
- CRAM - Regional Center of Municipal Administration
- DASP - Administrative Department of Public Service
- EMBRAPA - Brazilian Agriculture and Livestock Research Corporation
- FGV - Getulio Vargas Foundation
- FINEP - Financiara for Project Studies
- FIPE - Institute for Economic Research, University of Sao Paulo
- FUMCAP - Capital Market Development Fund, Central Bank
- FUNCET - State Fund for Scientific and Technical Development
- GOB - Government of Brazil
- IBAM - Brazilian Institute for Municipal Administration
- IIAA - Institute of Inter-American Affairs
- IMF - International Monetary Fund
- IPE - Institute for Economic Research, University of Sao Paulo
- IPT - Technical Research Institute
- IRS - Internal Revenue Service
- ISP - Institute for Public Services
- ITAL - Food and Technology Institute
- PASA - Participating Agency Service Agreement
- PERSP - Special Studies Unit, Ministry of Health
- PLANASA - National Sanitation Plan
- SESP - Servicio Especial de Salud Publica (Health Service)
- SUDENE - Superintendency for the Development of the Northeast

## PREFACE

This report provides a broad review of the operations of AID in Brazil from 1961 to 1974, including background on the development of the program prior to 1961. The objective is to analyze and evaluate the effectiveness of various forms of assistance.

In early 1985, a data base was assembled from the documentation available in Washington. During March and April of 1985, a three-man team consisting of C.A. Boonstra, Vincent Rotundo, and Harry Carr, visited Brazil for interviews and field observations.

The study focuses on the character and intent of AID operations, and on their results. Data, while copious, are sometimes incomplete or inconsistent. Some important documents still await declassification. Reports and project documents from over one hundred technical assistance projects and loans were reviewed. Information about these reports and documents is available in the appendices.

The many people interviewed in Brazil, mostly Brazilians who worked closely with AID in cooperative assistance programs, were extremely helpful. Many are still associated with institutions assisted by AID. Howard Lusk, the AID representative in Brasilia on the Embassy staff, assisted the team with advice and guidance. In Rio de Janeiro, similar support was provided by consular officers.

## EXECUTIVE SUMMARY

From 1961 to 1974, Brazil was one of the largest recipients of development assistance provided by the Agency for International Development (AID). Projects funded were numerous and diverse, ranging from improved agricultural inputs for small farmers in underdeveloped regions, to support for development finance institutions in Brazil's financial centers.

In its early years, AID/Brazil made a particular effort to improve living conditions and to promote development in northeast Brazil, a vast underdeveloped region with a third of the country's population. However, by 1964, the primary interest was in economic stabilization. When balance of payments and budget problems were ameliorated, in 1968, AID returned to development as a principal objective.

Assessing AID's accomplishments is complicated by frequent changes in the political and economic environment, and in the emphasis and objectives of its principal programs. Throughout the program there was a continuing stream of technical assistance, grants and loans directed at development. However, at times during the program, emphasis was placed on meeting immediate needs rather than on long-term impacts. Measured by inputs of funds and personnel, major sectors assisted were education, agriculture, health, sanitation and public administration. AID contributed significantly to infrastructure improvement by providing funds for electric power, roads, housing, industry, capital market development and planning.

In nearly all technical areas advanced training in the U.S. was used to improve professional skills needed in the development process. Training was backed up by institution-building in Brazil, through in-country training, grants and loans for facilities and planning.

Disbursements for economic stabilization and for physical infrastructure were the largest dollar inputs of the AID era. They helped to make possible the rapid economic growth of the early 1970s. Comparatively the expenditures for technical assistance and development were smaller, but

their impact was more lasting. In Brazil today, AID assistance is most remembered and most evident for its contributions in improving human resources, institutions, technology, and productivity.

The most successful efforts were those which provided advanced training in the U.S., improved universities and institutions, and assisted planning and government reforms. The least successful, with respect to development and lasting benefits, were those which attempted to provide services to people in the underdeveloped regions, as in the Northeast.

In AID's final years, it became evident that development objectives were best achieved in the more developed regions, consistent with their greater capacity to utilize the available assistance. In the underdeveloped areas the benefits of assistance tended to be transitory, overcome by population growth and the traditional patterns of the society. Increasingly, AID programs were modified toward increasing Brazil's own capacity, using primarily the resources of its developed regions, to push forward the basic changes and reforms needed for growth in the underdeveloped portions of the country.

AID started with a strategy for providing assistance to underdeveloped areas and ended with a strategy for helping an advanced developing country.

## Section I

### INTRODUCTION

This section provides a context for review of AID efforts in Brazil. It gives a chronological exposition of the AID program, contrasting AID's objectives with those of the Government of Brazil (GOB). U.S. assistance to Brazil dates from 1942; however, the Agency for International Development (AID) operated for only thirteen years from 1961 to 1974. In 1962, when AID embarked on large-scale programs and projects to assist Brazilian development, economic growth was already a well-established policy being pursued aggressively by the Brazilian Government. The achievements had been considerable. Growth in the gross domestic product from 1956 through 1960 averaged six percent annually. Industrial operations, particularly those industries which were oriented to import substitution were an increasingly large supplement to basic agricultural crops. Infrastructure investments in the previous decade had been large, the most recent being the construction of the monumental capital city of Brasilia.

This growth was taking place mainly in the south and central areas of Brazil, a region having about two-thirds of the country's population, an abundance of resources, and a dominance in political power. Development had scarcely touched the rest of the country. Almost a third of the population was in Northeast Brazil, an area poor in resources and having all the characteristics of serious underdevelopment. Additionally, there were vast regions of the interior and of the Amazon basin which had few people, potentially great resources, but virtually no development at all.

Brazil's situation was complex and unique. The country's natural resources were tremendous in relation to population. For government officials, the problem was not deficiency or lack of interest in growth, it was the persistent tendency of growth to overrun the supply of development capital.

Growth in Southern Brazil brought into focus the continuing underdevelopment and even deterioration of Northeast Brazil. The relationship had long been similar to that of a mother country and its distant colony. The Northeast was dependent on the south for markets, labor migration, basic food, materials, and help in time of cyclical drought. Its basic crops of cotton and sugar were marketed and processed by outside interests. Federal assistance programs were attempted repeatedly, particularly during drought periods, but accomplished little besides inducing greater dependency on politics and the federal government.

In 1959, only two years before the AID operations began, the federal government made its most significant move toward development in the Northeast. It established the Superintendency for Development of the Northeast (SUDENE), headquartered at Recife and charged with establishing, operating, and controlling all aspects of federal assistance for development in the area. SUDENE approached the problem primarily as a structural one. Its priorities were (1) industrial investment; (2) transforming the sugar economy, an outmoded industry occupying the best agricultural lands, through crop diversification, food production for local and outside markets; (3) assisting migration to new and better lands on the northern frontier of the region.

By the time of AID's arrival, SUDENE was a large and strong presence in the Northeast. With other agencies previously established, it formed what is sometimes termed the "underdevelopment industry" of the Northeast, characterized by an abundance of bureaucracy and planning but a deficiency in project implementation.

In 1960, in a hemisphere-wide conference, President Kubitschek of Brazil proposed an "Operation America" within which the U.S. would pledge massive dollar assistance to the less developed countries of Latin America. This proposal was a forerunner of the Alliance for Progress, established in March 1961 under the sponsorship of the Kennedy Administration.

Brazil and the U.S. had considerably different concepts regarding the provision and use of funds for development. The GOB perceived its needs as

the acquisition of funds to help in servicing the growing and unmanageable foreign debt, the maintenance of growth of the rapidly developing south, and the financing of SUDENE and its related agencies in the Northeast. In contrast, the U.S. objectives were provision of technical assistance and supporting funds to relieve poverty and to promote growth in low income sectors.

The U.S. had been providing technical assistance to Brazil since 1942. Bilateral teams had been working together on projects of special interest to both countries. To meet war-time needs, U.S. Rubber Development Corporation had promoted harvest of wild rubber and the establishment of plantations in the Amazon region, substituting for Southeast Asian supplies. The U.S. Geological Survey helped in the search for strategic minerals.

The newly-formed Institute of Interamerican Affairs (IIAA) and the Brazilian Government jointly established cooperative groups to implement programs in agriculture, nutrition, industrial education, and health. The most notable of these was the cooperative health service, Servicio Especial de Saude Publica (SESP) in the Amazon region. The cooperative service operated from 1942 to 1960. Two hundred U.S. personnel served with it. In-service training was provided to 12,000 Brazilians. One hundred thirty-one small public water systems were built.

In 1948, responding to Brazil's desire for assistance in economic development, the Joint Brazil-U.S. Technical Commission (Abbink/Bulhoes Mission) was initiated. The problems in developing agriculture and livestock, industries, minerals, fisheries, storage, transportation, energy, and banking were studied by U.S. and Brazilian technicians together. Their report in 1949 stressed the need for foreign capital inputs to promote development. It described needed policy initiatives to reduce inflation and balance of payments pressures, to conduct tariff reform, and undertake railroad rehabilitation.

Following the Abbink/Bulhoes Mission, the two governments in mid-1951 established a Joint Brazil-U.S. Economic Development Commission (the Knapp/Bohan Mission) to work out specific development projects in a form which could be submitted for consideration of financing institutions, particularly the Eximbank and World Bank. Operating through 1953, its six sub-commissions made detailed studies on infrastructure projects in electric energy, railway transport, ports and water transport, agriculture, and technical assistance requirements.

Of 42 projects submitted, the Eximbank financed the foreign currency component of 25. The Knapp/Bohan Plan was the basis for development planning during the next two decades. An early product of the joint commission in the 1950's was the Brazil National Economic Development Bank (BNDE), an institution which has been the key agency providing credit for industry and development.

The Joint Commission advanced the provision of technical assistance significantly. The Commission provided 421 scholarships and fellowships for advanced studies in the U.S. Bilateral technical cooperation under Point IV was oriented to support the joint program, expanding on the previously established IIAA programs in public health, agriculture, industrial training, and minerals investigations. In 1953, a bilateral agricultural service was established. It assisted rural universities and programs in agricultural credit. Soon thereafter, assistance was provided similarly in education, public and business administration, and public safety. The total inputs were modest, totaling \$64 million. Eight million dollars of that was part of a worldwide malaria eradication campaign. By 1960, the operating patterns and areas of technical assistance in Brazil were well established.

In Brazilian development history, the Joint Commission of the early 1950's remains a most significant influence. The participating Brazilians were able and still provide much of the country's economic leadership.

In the late 1950's, the Brazilian Government involved itself in projects requiring vast expenditures other than those in the joint development plan. Among these were the construction of the new capital, Brasilia, the nationalization of the petroleum and the communications industries, and the establishment of large public enterprises in electric energy and mining.

A newly elected president took office early in 1961; he resigned a few months later. His replacement, the former vice president, was aligned politically with populist and leftist groups. Simultaneously, peasant movements in Northeast Brazil were causing political concern, particularly disturbing to the U.S. when viewed against the background of Castro's Cuba.

In 1961, when AID began planning its enlarged assistance program, the situation had become near chaotic financially and politically. Inflation was accelerating, investment declining and capital flight taking place. The economy was slowing. The capacity to finance development and to service debt was seriously impaired.

## Section II

### THE AID ERA: CHANGING ENVIRONMENTS

The AID program in Brazil lasted 13 years, during which its objectives and priorities shifted radically in response to differing needs. Three distinct periods are apparent. During the initial AID period (1961-1964), the political and economic environment deteriorated and few positive results from U.S. assistance are visible. The second period began in April 1964 when military forces removed the president. The military dominated subsequent governments, making economic stabilization their first priority. Period three began in 1969 when rapid economic growth supported by AID was reestablished. AID priorities shifted to sector support for Brazilian entities and away from direct advisory assistance. AID operations ended formally in 1974, although final disbursements continued through 1978.

AID's largest inputs were directed towards economic stabilization, linked also to infrastructure development and technical assistance. Transitory operations included the provision of emergency food relief. In the final years of the program, human resources and institutional development received the greatest financial assistance. The longest continuous thread in development philosophy from the 1940's through the end of the AID era was assistance in human resources and institutional development.

In each of the three periods, continuing conceptual differences between Brazilian agencies and AID are evident. The priorities of Brazil were directed consistently toward obtaining funds from abroad to support its agencies and its programs. The GOB desired technical assistance primarily at higher levels for the purpose of equipping its professionals and institutions to carry on development. Reducing income disparities among regions and groups was not an immediate objective; the Brazilians viewed this as an end result from long-range structural change and "trickle down" from growth in the developed regions.

Early AID objectives, corresponding to those of the Alliance for Progress, differed from the Brazilian concept. AID resources were to be directed primarily to underdeveloped regions for the benefit of low income groups. Technical assistance to the underdeveloped regions was a higher priority than assistance to the more developed regions. Greater equality in income distribution, among groups and regions, was an early AID objective. Financial supporting assistance was to be provided only when Brazil's own stabilization management was adequate.

Over 13 years, AID moved steadily towards the Brazilian concept. Technical assistance was oriented increasingly toward higher education and training. Sector loans funding programs of Brazilian entities were the principal form of assistance. AID's early emphasis on quick impact programs for the underdeveloped regions had been largely abandoned. In AID's final years in Brazil, income disparities were increasing.

A. The Goulart Years: 1961 - March, 1964

As the largest and most important of the underdeveloped countries participating in the Alliance for Progress, Brazil expected commensurately a large share of the Alliance funds. However, the AID program for Brazil ran into serious difficulties almost immediately. The government of President Goulart was considered nationalist, leftward-leaning, inept, and at times hostile to U.S. interests. Populist moves by the government had reduced investor confidence. Capital lending programs of the Eximbank, multilateral agencies, and other offshore sources were largely halted. IMF negotiations were stalled.

Within the Alliance for Progress, Brazil desired principally U.S. dollar inputs to finance imports and to assist in debt service. President Kennedy promised \$100 million for these purposes. It was assumed that the Goulart government would adopt stabilization measures to deal with the economic crisis. When adequate measures were not taken, relations worsened. In 1962 and 1963, the U.S. implemented its commitment reluctantly

with two loans for \$74.5 and \$25.5 million, more as a token goodwill gesture within the Alliance for Progress than an expression of confidence in the Goulart program.

Meanwhile, AID established as its highest priority the provision of technical and development assistance in Northeast Brazil, including emergency food supplies to relieve hunger in that region. Elsewhere it proposed to continue the existing U.S. technical assistance programs, and to assist economic stabilization to the extent that government measures were taken to utilize such assistance more effectively.

In the Northeast, the environment proved unfavorable to AID's ambitious efforts. SUDENE, the cooperating agency, insisted on management control and on retaining its priorities for long-range structural change. AID sought quick impact in raising living standards through improving practices in education, health, sanitation, and agriculture. With SUDENE's large, inexperienced, and ill-equipped bureaucracy on one side, and action-oriented AID staff with limited capabilities on the other, friction was constant.

In April 1962, AID agreed with SUDENE to commit \$131 million for joint development and technical assistance projects, as well as PL-480 commodities and counterpart cruzeiro inputs. To speed action, AID established at Recife, the SUDENE headquarters city, a separate office for programming and operations. To circumvent problems with SUDENE, AID negotiated projects directly with state governments (the so-called "islands of sanity") and involved itself directly in operational matters. The problems continued; state and local agencies lacked capacity to cooperate and administer projects. Friction with SUDENE increased. Small groups within the Northeast received some benefits, particularly in food and teacher training. A beginning was made on road construction and power development. There was little quick impact on regional development.

B. Stabilization, April 1964-1969

The military-dominated government taking power in April 1964 declared economic stabilization a principal objective and designated a civilian cabinet minister and supporting staff known for their support of stabilization measures. In this more favorable environment, AID responded with an almost immediate shift to economic stabilization as a priority objective. Technical assistance was increased as well, but with more emphasis on infrastructure, economic reforms, higher education, and institutional growth than had been the case during the Goulart years.

In the Northeast, SUDENE was reorganized and the frictions diminished. AID was, by now, more aware of the obstacles blocking quick impact programs. Political disturbances were no longer considered a major problem, in part because of repressive action by the new government. AID moved somewhat closer to the Brazilian structural objectives, shifting its priorities in technical assistance toward land reform, industrial growth and basic public services, including roads and power.

AID operations expanded rapidly. In nine months (April-December 1964), \$279 million in program and capital loans, plus substantial disbursements of carryovers from the Goulart years, were authorized. From April 1964 through 1968, total program and capital loans approached one billion dollars.

By 1968, it was clear that the character of AID assistance once again needed reshaping. Economic stabilization had worked. There was less need for program loans and a decreased willingness on the part of the Brazilian government to accept program conditions. In the U.S., increasing concerns about political repression and the government's intentions for return to a democratic system were voiced.

In 1969, the AID program was reviewed; new authorizations for program and capital loans were stopped. During this interim year, AID continued disbursements on existing loan authorizations and technical assistance.

C. Selective Sectoral Support: 1970 - 1974

These were the "miracle years" of Brazilian economic growth. Annual increases in the gross domestic product were nearly 12 percent. Inflation declined and exports increased. Savings and foreign investment expanded. Exchange reserves were adequate. The domestic budget was in reasonable balance. Brazil, using its own resources, was embarking on large infrastructure projects, among them the highway across the Amazon basin, the expansion of state enterprises in mining and industry, the planning of the world's largest hydroelectric facility and the development of far-reaching projects for national integration.

AID's financial support was no longer critically needed. On the other hand, selected sectors important to development were being left underfunded, outside the first ranking Brazilian priorities. In 1968, AID made a pioneering sector loan for education; in 1970, it followed up with further sector loans to Brazilian agencies for education, health, and sanitation. In 1971, sector support was provided to Brazilian development programs in Northeast Brazil, directed to rural roads, agricultural marketing facilities, and small and medium industry. These were followed in 1973 by sector loans for education, capital market development, and science and technology.

The environment for these programs was highly favorable, with emphasis on improving Brazil's own capacity to continue its development. The AID strategy shifted again, this time in the direction of assistance appropriate for an advanced, developing country.

In the U.S., the concept of the AID role was assistance to underdeveloped countries. Questions were raised about provision of long-term, highly concessionary loans to a country no longer in urgent need. Additionally, in Brazil there was continuing political repression and reports of human rights violations. The decision was made to end the AID program in Brazil. The last technical assistance grants were made in 1972. The final loan was made in 1973. Disbursements of concessionary loans continued for another five years, through 1978.

Table 1

U.S. GOVERNMENT: LOANS AND GRANTS AUTHORIZED  
AND OBLIGATED FOR BRAZIL,  
1961-1963, 1964-1969, 1970-1974  
(millions US \$)

	1961-63	1964-69	1970-74	Total
<u>AID:</u>	179.1	1,079.7	225.1	1,483.9
Loans	137.4	995.3	178.8	1,311.5
Grants	41.7	84.4	46.3	172.4
<u>Food for Peace (PL 480):</u>	205.2	369.3	119.0	693.5
Title I Loans Payable US\$	-	91.8	43.2	135.0
Title I Loans Payable Cr\$	157.6	115.4	-	273.0
Title II Grants	22.0	70.8	47.8	140.6
Title II Voluntary Agencies	25.6	91.3	28.0	144.9
<u>Social Trust Fund (IDB Loans)</u>	52.3	12.4	0.2	64.9
<u>Peace Corps &amp; Others (Grants)</u>	2.5	25.7	19.3	47.5
<u>Military Assistance:</u>	74.4	152.8	103.6	330.8
Loans	-	71.9	96.1	168.0
Grants	74.4	80.9	7.5	162.8
<u>Export-Import Bank</u>	183.3	131.6	906.0	1,220.9
<u>All Other</u>	-	15.8	5.9	21.7
Total U.S. Government Loans and Grants	696.8	1,787.3	1,379.1	3,863.2

Source: U.S. Overseas Loans and Grants, Obligations and Loan Authorizations, July 1, 1945 - September 30, 1983, CONG-R-0105.

### Section III

#### AID'S CONTRIBUTION TOWARD ECONOMIC STABILIZATION

This section describes the nature and results of AID's economic stabilization efforts in Brazil. Economic stabilization support was the largest single financial operation of the AID era. About \$625 million was loaned to Brazil in the six years between 1962 and 1968 in the form of program loans, specifically to assist the GOB in foreign debt service, financing its budget deficit, financing imports and gaining control of the money supply. This was about half of all loans made by AID during the years of its Brazil operations.

Equally important, but less measurable, was the stabilization support provided by other types of loans and grants. These included large capital loans for infrastructure development, provision of Food for Peace commodities, counterpart cruzeiros available to Brazilian agencies from program loans and from PL-480 commodities, and large annual grants for technical assistance. Additionally, the U.S. provided dollar inputs through the Social Trust Fund, administered by the Interamerican Development Bank.

The terms on program, capital, and sector loans were highly concessionary. All were wholly or partly repayable in 40 years, with ten years' grace, at interest rates ranging from 3/4 percent in the early 1960's to a high of six percent in the 1970's. Total loans on these terms, from 1962 through 1973, were approximately 1.3 billion dollars.

When AID began its operations in Brazil in 1961, the most desired form of assistance was dollar loans for economic stabilization. A newly installed, politically fractured government, and a rapidly deteriorating economic situation, created an unfavorable environment for stabilization.

Table 2

BRAZIL: AID DOLLAR LOANS AND GRANTS AUTHORIZED  
DURING THE GOULART YEARS, 1961 - MARCH 31, 1964

(millions US \$)

	1962	1963	Jan.-Mar. 1964	Total
<u>Loans:</u>				
Program	74.5	25.5	-	100.0
Electric Power	-	23.2	-	23.2
Transportation	-	11.0 <sup>1/</sup>	16.4 <sup>1/</sup>	27.4
Industry & Mining	7.4	2.0	6.9 <sup>1/</sup>	16.3
Health	-	-	6.5	6.5
	81.9	61.7	29.8 <sup>1/</sup>	173.4
<u>Grants:</u>				
Agriculture	1.2	8.8	2/	10.0
Education	3.2	2.6	2/	5.8
Health/Sanitation	2.4	4.5	2/	6.9
Transportation	0.3	1.8	2/	2.1
Public Adm./Safety	0.6	1.3	2/	1.9
Other	2.4	4.4	2/	6.8
	10.1	23.4	2/	33.5

Source: Agency for International Development.

<sup>1/</sup> Authorized during Goulart years but loan agreements not signed until after April 1.

<sup>2/</sup> For purposes of this study, annual grants classified as available in April-December 1964. (See Table 3)

In an effort to spur progress toward stabilization, an AID loan of \$74.5 million was provided for import procurement, fulfilling in part the commitment of \$100 million made by President Kennedy to assist economic stabilization. Subsequently, in 1962 and 1963 Brazil attempted two stabilization programs, but neither came close to meeting its objectives. In 1963, AID loaned \$25.5 million to the Bank of Brazil for emergency relief, fulfilling the balance of the Kennedy commitment. In some respects, these loans had the opposite of their intended effect; by providing a small measure of temporary relief, they weakened those groups that were pressing for a strong stabilization program and strengthened those groups seeking Goulart's overthrow.

Over the years there has been much discussion about whether a bolder, larger input by the U.S. might have influenced the weak Goulart Government to establish adequate stabilization measures, reversing the economic decline and avoiding the overthrow in 1964 of democratic government. The record for 1961-63 shows that these matters were much debated but not resolved. The problems were political as well as economic. Without a favorable environment, the AID inputs were almost certain to be ineffective.

The military-dominated government which took power in April 1964 established economic stabilization and growth as its top priority. Economists named to the implementing cabinet positions were internationally experienced and highly competent, many of them trained in the U.S. and/or through service with the joint planning commissions of 1949-53.

AID provided an interim contingency loan of \$50 million almost immediately with virtually no strings attached, to bridge the gap between administrations. This loan is regarded by Brazilian economists as the most significant single action of AID during all of its Brazil operations. Politically, it signaled U.S. support for the new government and confidence in its economic team; economically it implied further support for reform and stabilization efforts.

By December 1964, the stabilization program was underway and AID agreed to provide a \$150 million program loan. The loan was released in 1965 in four tranches, each conditioned on progress toward the established stabilization goals. The terms were readily acceptable to Brazil. The loan was essential to stabilization; it lessened somewhat the impact of austerity and strengthened politically the economic team.

Stabilization efforts were effective. Exports began to grow, and gross domestic product ended its decline and turned upward. Imports were reduced and the trade balance became favorable. A sharp devaluation of the cruzeiro in 1965 was followed by a decline in the inflation rate to 24 percent in 1966, the lowest since the late 1950's.

Exchange reserves and import supplies, however, remained precarious. Brazil sought additional support to assure success of its stabilization policies. In 1966, AID responded with another program loan of \$150 million. This loan was conditioned on achievement of monetary and fiscal objectives, and on providing additional room for U.S. imports. Improvement continued and by early 1967 the economic indicators were turning upward.

There were setbacks in 1967. With the end of the Castelo Branco presidency and a change in the economic team, uncertainty about implementation of the stabilization policies was coupled with growing liquidity in money and credit. Exchange reserves fell sharply and foreign debt became more difficult to service. At that time about 85 percent of the debt was short-term, payable within a year.

Again AID provided a program loan, this time for \$150 million conditioned on the achievement of defined stabilization objectives, including increased imports from the U.S. and the reduction of inflation. The conditions were rigidly enforced and only \$100 million was disbursed. In 1968, AID provided further support with a final program loan of \$75 million, supplemented by reauthorization of the \$50 million carried over from the 1967 loan.

Table 3

BRAZIL: AID DOLLAR LOANS AND GRANTS AUTHORIZED  
DURING THE STABILIZATION YEARS, APRIL 1964 - DECEMBER 1969  
(millions US \$)

	Apr.-Dec. 1964	1965	1966	1967	1968	1969	Totals
<u>Loans:</u>							
Program	200.0	-	150.0	100.0	75.0	-	525.0
Agriculture/ Natural Resources	15.0	-	20.0 <sup>1/</sup>	8.4 <sup>2/</sup>	13.4	-	56.8
Education	-	-	-	-	32.0	-	32.0
Health/Sanitation	-	-	5.1	-	28.8	-	33.9
Electric Power	48.4	60.3	15.1	41.9	27.4	-	193.1
Transportation	14.7	15.0	20.4	13.0	-	-	63.1
Industry & Mining	0.8	2.8	14.8	-	-	-	18.4
Miscellaneous	-	11.0	-	-	5.8	-	16.8
	278.0	89.1	225.4	163.3	182.4	-	938.8
<u>Grants:</u>							
Agriculture	3.2	1.1	2.1	5.1	3.4	3.2	18.1
Education	1.7	2.2	1.6	1.9	2.6	2.0	12.0
Health/Nutrition	1.5	0.3	0.4	0.4	0.3	0.2	3.1
Transportation	0.5	0.3	0.5	0.3	0.2	0.2	2.0
Public Adm./Safety	1.1	0.7	0.5	0.6	0.6	0.8	4.3
Industry & Mining	0.1	-	-	0.3	0.1	-	0.5
Private Enterprise	1.4	1.1	0.8	1.1	0.2	0.5	5.1
Labor	0.1	0.7	0.5	0.2	0.8	0.8	3.1
Other	3.6	6.0	6.8	4.8	3.1	2.4	26.7
	13.2	12.4	13.2	14.7	11.3	10.1	74.9

Source: Agency for International Development.

<sup>1/</sup> Disbursements were only \$1.0 million.

<sup>2/</sup> Mineral and water resources.

Substantial economic reforms had been made, one of the most significant being tax collection. Innovative measures had been established for indexing savings, wages, and contracts; the rate of inflation was falling. The weakest link in the economic chain was the structure of foreign debt; with any setbacks to growth another crisis in debt service could arise. Brazil sought additional program loans, the 40-year terms of which would bring about improvements in the debt structure.

By late 1968, the AID operations were under intensive review. Not only was Brazilian recovery evident, and the need for program loans debatable, but a trend was emerging toward greater political repression and further postponement of a return to democratic government. In the U.S., the victory of the Republic Party in the 1968 elections was causing a review and possible change in policies for assistance abroad. The review continued through 1969, during which no new loan authorizations were made. Meanwhile, the disbursements from previously authorized loans kept the concessionary dollar inflow at high levels. Supporting grants for technical assistance were continued.

In 1970, Brazil was entering its four "miracle" years. Gross domestic product was growing by 10 percent to 12 percent annually. The annual rate of inflation was falling, exports of agricultural commodities and industrial items and imports were surpassing all expectations. Exchange reserves were growing steadily and, while debt was also increasing, loan terms had been stretched out to a point where there was no current servicing problem.

Prior to 1968, AID was the source of almost all assistance inflows. Thereafter, financing from other sources began to exceed that of AID. The World Bank and Interamerican Development Bank became the principal providers of development assistance, diminishing sharply the importance of AID operations. Credit for commercial operations and investment was increasingly available from normal trade sources, including Eximbank.

Table 4

BRAZIL: AID DOLLAR LOANS AND GRANTS AUTHORIZED  
DURING THE CLOSING YEARS, 1970 - 1974

(millions US \$)

	1970	1971	1972	1973	1974	Total
<u>Loans:</u>						
Agriculture	-	15.0	-	7.6	-	22.6
Education	50.0	-	-	-	-	50.0
Health/Sanitation	25.0	-	-	7.6	-	32.6
Electric Power	-	2.5	-	-	-	2.5
Transportation	-	25.0	-	-	-	25.0
Industry & Mining	-	25.0	-	-	-	25.0
Science & Technology	-	-	-	15.0	-	15.0
	75.0	67.5	-	30.2	-	172.7
<u>Grants:</u>						
Agriculture	3.3	3.0	2.0	-	-	8.3
Education	2.8	2.6	3.1	-	-	8.5
Public Adm./Safety	0.6	0.4	0.1	-	-	1.1
Labor	1.0	0.4	0.6	-	-	2.0
Other	4.2	4.4	3.6	-	-	12.2
	11.0	10.8	9.4	-	-	32.1

Source: Agency for International Development .

In its own development efforts the Brazilian government was moving forward on vast new projects, independent of AID. These included the construction of trans-Amazon highways, the planning for the world's largest hydroelectric project, and related industrial activities.

The focus of AID operations was once again on technical assistance, on smaller infrastructure needs, and on the improvement of human resources and institutions. Assistance was being provided by sector loans to Brazilian entities, a type of assistance which began in 1968 with loans for education, health and sanitation.

In the years from 1970-73, AID made ten loans totaling \$173 million. Most had the characteristics of sector loans, providing support for agencies to carry out projects which had been designed with the help of AID technical advisors. The highly concessionary terms of the loans improved further the structure of Brazil's overseas debt; internally the loans reduced the pressure on Brazil's budget.

With the change to sector loan strategy, AID began to phase out its direct local participation in technical assistance. The Northeast Brazil regional office was closed and AID personnel levels were reduced. In 1974, AID programming was ended, excluding disbursement under existing loans which continued to 1978.

The U.S. Comptroller General, in a 1974 review of the AID operations, reported that the provision of the highly concessionary loans from 1970-74 was unnecessary. Also it found indications that the Government of Brazil might have proceeded itself to fund the projects for which AID made these loans. Other observers have noted the possibility that lessened availability of the AID loans in these years might have influenced the Brazilian government toward better priorities in its use of funds.

As a means of improving human resources and building institutions the sector loans of 1970-74 may have contributed more to Brazil's development than the larger stabilization loans of earlier years. From 1974 onward, the world petroleum crisis undermined the economic stabilization achieved

Table 5

DISBURSEMENTS ON AID LOANS AND TECHNICAL ASSISTANCE GRANTS,  
IN U.S. DOLLARS, CLASSIFIED BY FIELD OF ACTIVITY, 1953 - 1978

Field of Activity	Technical Assistance <sup>1/</sup>		Dollar Loans	
	No. Projects	Dollar Grants	No. Loans	Dollars
Program Loans	-	-	7	625.0
Agriculture & Natural Resources	31	50.6	7	50.8
Education	25	40.6	2	82.0
Health/Sanitation	17	25.4	7	65.4
Electric Power	3	1.0	16	208.5
Transportation	7	7.2	8	83.4
Industry & Mining	6	5.4	6	37.2
Private Enterprise/Promotion	11	5.4	3	22.6
Science & Technology	-	-	1	14.8
Public Administration/Safety	10	25.2	1	2.6
Community Development/Housing	9	2.0	-	-
Labor	6	6.5	-	-
Miscellaneous	22	38.0	2	14.2
	147	207.3 <sup>2/</sup>	65	1,235.1 <sup>3/</sup>

Source: Agency for International Development.

- <sup>1/</sup> Some technical assistance projects began before AID became operative; they are included here if taken over by AID from 1961 onward.
- <sup>2/</sup> Includes \$190.1 million grant; \$17.2 million on mixed basis.
- <sup>3/</sup> Loans authorized and obligated were \$1,282.4 million.

the previous decade. By 1980, Brazil again was in a difficult economic situation. In contrast, the improvement in human resources and institutions is a continuing and increasingly important impact on development throughout Brazil.

It has been widely noted that the large AID financial assistance was not accompanied by any narrowing of the disparities in income distribution. This became increasingly evident during the "miracle" years and fostered much criticism, in donor countries, of the trends in Brazilian development.

Data on income distribution are deficient. Few analysts agree on procedural methods, but in the case of Brazil there is virtually no dispute on the broad conclusion. Put simply, in 1960 the low percentile (10%) of the population appears to have received two percent of the total income; in 1976 only one percent. Meanwhile, the top percentile increased its share of income from 40 percent in 1960 to 50 percent in 1976.

In 1960, the lowest 30 percent of the population received 6.9 percent of the income; in 1976 it received 5.9 percent. The share of the upper 30 percent meanwhile rose from 66 percent to 75 percent. In absolute terms all income levels were higher in 1976 than in 1960, but the increase for the bottom percentile was 35 percent; for the top percentile, 221 percent. Similarly, in absolute terms, the lower 30 percent had an increase of 103 percent; the upper 30 percent rose by 160 percent.

In Brazil, the regional differences are great. Large segments of the population derive few immediate benefits from economic stabilization, industrialization, and export growth. Even within regions the sectorial differences are great. Increases in agricultural productivity have little or no impact on the incomes of subsistence farmers. Regionally, and within each region, the differences in education, skills and opportunities between high and low income groups are large. Resources and institutions have not yet reached the stage where large income transfers are possible through fiscal, tax, and welfare policy.

Table 6

*The Brazilian Distribution of Income, 1960-76*

Income Groups (Percentile)	Relative Income Levels (Percentage of total income)				Absolute Income Levels (Average annual income for each income group, 1970 US\$)*			
	1960†	1970†	1976	Change 1960/76	1960†	1970†	1976†	Change 1960/76
10-	1.9	1.2	1.0	-47%	102	91	138	35%
10	2.0	2.2	2.2	+10%	112	167	303	170%
10	3.0	2.9	2.7	-10%	167	211	373	123%
10	4.4	3.7	3.2	-31%	243	271	451	86%
10	6.1	4.9	4.4	-28%	339	357	616	82%
10	7.5	6.0	5.1	-32%	420	446	712	70%
10	9.0	7.3	6.7	-26%	498	535	937	88%
10	11.3	9.9	9.8	-13%	626	728	1,375	120%
10	15.2	15.2	14.5	-5%	845	1,119	2,037	141%
10+	39.6	46.7	50.4	+27%	2,197	3,441	7,057	221%
5+	28.3	34.1	37.9	+34%	3,138	5,032	10,604	238%
1+	11.9	14.7	17.4	+46%	6,631	10,818	24,328	267%

SOURCE: Compiled from *Indicadores Sociais* (Rio de Janeiro: Instituto Brasileiro de Geografia e Estatística, 1979), pp. 63-64.

\*In 1970 the dollar was worth 4.6 cruzeiros.

†The 1960 and 1970 figures are obtained from the demographic census; the 1976 figures are obtained from the household expenditure survey PNAD (Pesquisa Nacional por Amostra de Domicílios). Both sets of figures refer to the economically active population. A variety of statistical problems is encountered in trying to compare these two sources; see discussion in "The Distribution of Income in Brazil," World Bank Staff Working Paper no. 356 (Washington, D.C., 1979), pp. 7-37. However, no one disputes the general trend toward increased inequality shown up by this table.

Brazilian economists view large income disparities as a necessary phase in the course of rapid economic stabilization, development, and growth. Concentration of income at the upper levels is viewed as a source of growth, providing investment funds and incentives. Lower economic groups only derive immediate benefits from higher incomes in absolute terms. Income disparity can decrease only gradually through acquisition of more skills and greater involvement in the economic mainstream by lower income workers.

Since the early 1970's there has been widespread criticism among development economists elsewhere that Brazilian growth policies ignore the needs of low income groups, the "trickle down" is doomed to failure, and that the type of development fostered by AID and other foreign assistance inputs is of benefit chiefly to higher income groups.

AID programs did not entirely ignore the problem of income disparity. Technical assistance in the Northeast was designed to bring low income groups into the commercial economy. Productivity was to be increased by better education, health, rural credit, seed, fertilizer, and promotion of small industry. However, in a country as large as Brazil, the AID programs had little or no impact on the broad problem. When AID shifted to the broader objectives of economic stabilization and overall growth, it was more closely attuned to the Brazilian concept that equipping the population with skills, facilities, savings and opportunities is the main objective of a development program.

## Section IV

### TECHNICAL ASSISTANCE, HUMAN RESOURCES, AND INSTITUTIONS

This section provides an overview of AID's technical assistance programs by sector. In today's Brazil, the assistance provided during the AID era is most remembered in those areas where it helped to improve human resources, institutions, technology, and productivity.

Dollar expenditures for these purposes were small compared to those for economic stabilization and physical infrastructure. AID grants for technical assistance from 1962 through 1974 were \$207 million. However, the grant figure does not measure accurately the input for these purposes. A large portion of the capital loans, in particular the sector loans, supported programs for technical assistance and institution-building. Much financing was provided from counterpart cruzeiros derived from program loans and PL-480 commodities, and from matching inputs of the Brazilian Government. Also the grant figure does not include the services of the hundreds of U.S. technicians paid directly by AID.

The technical assistance projects funded by AID during 1962-74 number well over one hundred, too many for individual analysis in this report. Many of them began under Point IV in 1954. Some were converted, after AID's departure, into permanent activities which continue today.

In broad terms the sectors emphasized in AID technical assistance and institution-building were education, agriculture, health/sanitation, and public administration. These categories are necessarily overlapping. In each of them, much of the assistance was provided in the form of training and education. Better teaching and research at universities was basic to the provision of assistance in each of the sectors.

## A. Education

Assistance was provided by AID for the publicly supported systems of primary and secondary schools, for regionally important universities including federal, state, and private, and for non-profit foundations carrying on programs of teaching and research.

### 1. Primary and Secondary Schools

Deficiencies in primary and secondary education have been and continue to be a major obstacle to Brazil's development. In 1962, when the Ministry of Education announced an Emergency Plan of Education, AID agreed to support the program primarily in Northeast Brazil, the most deficient region. School facilities were inadequate, teachers poorly trained, if at all; teaching materials and textbooks were lacking. AID assistance was provided in grants for school construction, for teacher training, and for participant training in the U.S. Technical advisors were provided in each state to help in administration and educational planning.

Organizationally, AID operated through SUDENE, the federal government's agency for the Northeast, in cooperation with each of nine state governments and their state secretariats for education. Split responsibilities were a constant problem. SUDENE was more interested in managing funds than in cooperation, state personnel lacked professional capacity, funds were frequently misused, contracting procedures did not meet AID requirements and building materials seldom met specifications. Long delays (due to lack of building materials and qualified workers) and accelerating inflation diminished the purchasing power of cruzeiro grants and budgeted funds. Language and cultural barriers created difficult working relationships between AID technical advisers, SUDENE and state governments.

As a consequence the early AID education effort in the Northeast produced little of lasting benefit. Of 16,235 classrooms originally projected, only 1,634 were completed. Training was provided to thousands of primary and secondary teachers but much of the impact was transitory; after training they were not adequately paid or supported and drifted off.

Improved administrative structure was established successfully in many states, with trained management, but trained administrators were replaced by political appointees.

The frustrating efforts of the early years were followed by a switch to technical assistance and training primarily in school administration and planning, at the federal and the state levels. After the mid-1960's, the AID advisors and activities were involved principally in helping their counterparts in these matters, including textbooks and teacher training. Implementation of these long-range improvements was funded, in AID's final years, by two AID sector loans, the first being \$32 million in 1968 and the second being \$50 million in 1970.

These latter efforts were far more successful than the initial programs designed for quick impact. They helped to establish permanently a greatly improved organizational and administrative system, at both federal and state levels. There are now better statistical information, educational standards, textbooks, and teacher training schools. The school lunch program, begun under the Food for Peace program, became a permanent operation within the state school systems.

## 2. Higher Education

Modernization and improvement of Brazil's archaic university system was a well-recognized development need. Some reforms had begun, supported with contributions from U.S. foundations and Point IV assistance. In 1954, work began on the establishment of a modern school of business at the State University of Sao Paulo. Later teaching and research in economics was added. In Rio de Janeiro and Sao Paulo, support for similar purposes was provided to the Getulio Vargas Foundation (FGV). In rural universities, the Point IV programs centered on assistance to Vicosa, in the state of Minas Gerais, and to the state University of Sao Paulo (Piracicaba).

Meanwhile, there was a growing demand for universities to provide engineers in technical areas important to development - industrial, mechanical, metallurgical, electrical and transportation fields; professionals in

sciences, from agriculture to nuclear research; and in public administration.

The cooperating agencies supporting the AID-assisted reforms were the Council of University Rectors (CREB) and the Ministry of Education. The jointly-proposed university reforms were far-reaching, substantive, and rapid. Within universities, the educational and research structures were remodeled along lines existing in the U.S., discarding much of the French model previously dominating. The institutions were administratively restructured, course content was changed, the semester system was inaugurated, full-time status for faculty was established along with credentials needed for the different levels of professorships. The old-time catedratico who could never be removed until retirement was eliminated.

Much of the effort was directed toward making Brazil more self-sustaining in its university structure, by developing its own capacities for training at the graduate level. Standards were established for the awarding of master and doctoral degrees similar to those of U.S. graduate schools. AID participated by providing graduate training in the U.S., in-service training in Brazil, temporary assignment of teaching and administrative staff, and seminars and short-courses held in Brazil.

The university reforms were development-oriented, directed toward studies, teaching, and research in economics, business, engineering, technology, and the sciences. There now exist a number of flourishing research institutes begun in the AID era, some of them directly associated with educational institutions and others which are semi-autonomous but which retain close educational ties.

The strategy supported by AID envisioned a widening circle of influence from a concentrated initial effort to improve the capacities of a relatively few key institutions within each subject area and geographical region.

In the economic area, these were:

- Fundação Getulio Vargas (FGV). In 1954, under the Point IV Program, Michigan State University contracted to provide staff and training for FGV's school of business administration in Sao Paulo. This project continued under AID; also, AID entered into a support program for the economic research and educational programs of the FGV in Rio de Janeiro, including public administration, statistics, and publications. AID provided grants in dollars and cruzeiros for training in the U.S. and for acquisition of buildings and equipment in Brazil. Specialists from U.S. universities were contracted to work temporarily with FGV in Brazil.

- State University of Sao Paulo. AID picked up and expanded a teaching and research program begun in 1954 by the Ford Foundation and by Point IV. Vanderbilt and Michigan State Universities were the contractors providing staff and participant training. By the mid-1960's, the schools of economics and business administration were well-established, providing graduate training at master and Ph.D. levels and developing strong institutes for economic research. The Economic Research Institute (IPE) exists within the university; the Foundation for Economic Research (FIPE) is independently funded for the purpose of contract research but is associated closely with university operations.

In agriculture, the programs for higher education were centered on universities within the regionally different farming areas of Brazil:

- The Rural University of Vicosa, in the state of Minas Gerais. Founded in 1924, with its first rector a former land-grant college president from the U.S., Vicosa had long been receptive to U.S. concepts in agricultural education and research. Assistance in the 1950's was provided by U.S. foundations and by Point IV, the latter contracting Purdue University to provide staff and training. This assistance was continued and expanded by AID. Vicosa now is an important center for education and research in agriculture, food processing, forest products, and nutrition. It provides graduates with advanced degrees to educational institutions, industries, and government, and within the state of Minas Gerais, carries on

some extension services. It is unique in having many of the characteristics of U.S. land-grant colleges which combine education, research, and extension, a concept which generally has not worked out well in the less-developed countries.

- The agricultural school of the State University of Sao Paulo, at Piracicaba. Located in the most important agricultural state of Brazil, the school was assisted first by Point IV and subsequently by AID. The principal contractor providing faculty, training, and research facilities was Ohio State University. Piracicaba is now a flourishing institution and includes a graduate school and an extensive research program.

- The agricultural school of the Federal University of Rio Grande do Sul, at Santa Maria in Southern Brazil. AID initiated and supported a program for improvement of curricula and research primarily through contracts with the University of Wisconsin. Rio Grande do Sul is the only region of Brazil producing temperate climate crops and livestock where research results from the U.S. are quickly adaptable. Along with Vicosa and Piracicaba, the university at Santa Maria has become a principal center for advanced study and research.

- The agricultural school of the Federal University of Ceara, at Fortaleza in Northeast Brazil. The University of Arizona was contracted by AID to assist the development of a regional center for agricultural education and research specializing in the problems of the Northeast, an area previously lacking in such facilities. The project succeeded in providing extensive participant training and improved staff; today, the school has a faculty providing courses at the graduate level and conducting some research. However, this school is less successful than the other agricultural universities which received AID assistance. The secondary schools of the region do not turn out the quality of students needed for the courses, the budget of the school has not provided adequate support, and the research needs of the region are unique and far more difficult than elsewhere.

AID support of engineering education was provided in three universities:

- The Federal University of Rio de Janeiro. Within the university there was established a cooperating agency to coordinate the national effort to improve graduate education in engineering, known as COPPE. AID supported a participant training program at Rensselaer and M.I.T. universities helping COPPE to build a teaching cadre with master and doctorate degrees from these and other leading U.S. schools. The switch to full-time faculty enabled professors to devote more time not only to students but also to research. Since the beginning of the COPPE effort, the school has awarded 2,300 master degrees and 200 doctorates. Regular engineering graduates, about 10,000, are working in all aspects of industry, government, and teaching. The school has been active in research, having handled approximately 1,200 projects for private industry.

- The Pontifical University of Rio de Janeiro. The Science and Technology Center at this private university was assisted by Stanford University and the University of Houston, with funding from AID. Stanford helped to remodel its administration system and Houston provided a revised engineering curricula; American professors from both universities worked in the program; training in the U.S. was provided to Brazilian participants.

In 1962, the engineering school had no one on its teaching staff with a graduate degree. Today 219 professors out of a total 328 have graduate degrees. Since 1965, the school has awarded 1,100 M.S. degrees and over 40 Ph.Ds. There has developed a close association with private industry, with the university now operating a special office for coordinating industry-sponsored research.

- The University of Minas Gerais at Belo Horizonte. The engineering faculty at this university, strategically situated in the mining and steel-producing region, was improved by participant training and graduate school capability provided by AID. Eletrobras, the government-owned holding company for electric utilities, established its program for master degree training in electrical engineering here.

In public administration, the educational institutions establishing advanced training with AID assistance were principally:

- Fundacao Getulio Vargas. In Rio de Janeiro, AID assisted FGV in establishing graduate work and research closely coordinated with the schools of business management and economics.

- University of Sao Paulo. Advanced studies in public administration were established using AID advisors and participant training in the U.S.

- University of Bahia. Emphasis in this school was on public administration in Northeast Brazil. Studies and research were coordinated with the Institute for Public Services in Bahia, the Regional Center for Municipal Administration in Pernambuco, and the Regional Center for Administration Training in Ceara.

#### B. Agriculture

Improvement of agriculture was a principal AID objective. Programs and projects were numerous and highly varied, ranging from delivery of better services for small farmers to the training of advanced research specialists. U.S. specialists were assigned within government agencies, research stations, and extension services. AID supported programs for land reform, greater fertilizer use, agricultural credit facilities, irrigation, soil surveys, rationalization of the sugar industry, aquaculture, pesticides, disease control, seed improvement, storage, and marketing. Many of the projects were coordinated with the training and related activities of the agricultural colleges.

Under Point IV and the early years of AID there was a considerable effort to transplant to Brazil the U.S. land-grant college concept combining education, research, and extension. To some extent this took root at one institution, Vicosa, but generally it did not fit well into the Brazilian environment. The rural universities had neither resources nor governmental responsibility; the existing extension and research services

operated by federal and state agencies were bureaucratically structured and highly political. AID programming increasingly concentrated on assisting education at the universities, and working with other entities for delivering services to farmers.

In Northeast Brazil, AID made a special effort to assist small farmers, many of them on a subsistence basis. Not much was accomplished. The state and federal extension services could not be quickly improved; there was no adequate basis in research; U.S. technical specialists could not spread their influence very far. Broad programs such as resettlement and land reform were overwhelmed by established tradition and political resistance, active and passive. Frequently there were basic conceptual differences between AID and Brazilian agencies, particularly SUDENE which had principal development responsibility for the region.

Early research efforts ran into similar difficulties. U.S. technical advisors, when placed within agricultural research agencies, seldom had adequate equipment or assistance. In some cases, U.S. technicians themselves carried on research. Among the best remembered is the work of an AID specialist highly successful in adapting soybean varieties to Brazilian needs. For a time, there was intensive work on developing a high protein corn; when achieved, it had qualities not suited to Brazilian farm and nutrition practices and was little used. More successful was a pond fishery research project in Northeast Brazil, directed by an Auburn University specialist.

By 1969, the direct research activities were largely halted, in part because they were not highly productive in their existing patterns, and in part because of a storm of publicity in U.S. newspapers and Congress concerning AID funding of research on "bats and noxious birds", construed to be an example of excessive AID involvement in local problems.

Against this background, AID assistance to agriculture shifted to broader objectives. Improved marketing facilities, market news services, agricultural statistics, storage facilities, seed improvement, irrigation, and soil improvement were supported with technical advisors, grants, and loans. In these areas, the AID programs were far more successful than in

the earlier efforts to provide services to individual farmers. The seed improvement project, for example, produced lasting benefits in better standards, grading, and regulatory procedures. Production and marketing of the improved seeds assisted greatly the expansion of major commercial crops, including corn, beans, grains, and soybeans. Equally important, the activities in these areas were establishing within government agencies an involvement with programs within their capacities to carry out.

Meanwhile, the assistance to agricultural colleges was enhancing substantially the research capacity of the nation but an adequate agency to conduct the research was lacking. In the late 1960's, the National Research Council of Brazil (CNPQ), backed by coordinating agencies including the universities, proposed a new approach to agricultural research. This resulted in the establishment, in 1973, of the semi-autonomous Brazilian Agricultural and Livestock Research Corporation (EMBRAPA). Patterened on Brazilian institutional arrangements in other research areas, EMBRAPA was given responsibility for maintaining professional staff, conducting nationwide agricultural and related research, and coordinating and supporting the similar research of federal, state, and local entities, including the rural universities.

AID supported EMBRAPA with participant training at the graduate level in the U.S., and with loans for construction of research facilities in Brazil. It helped this institution to become, in little more than a decade, one of the leading research centers in tropical and sub-tropical agriculture. Within Brazil it carries on research at six locations, associating with the geographically distinct needs of the country, and coordinates and supports research at the rural universities and the development agencies. Increasingly the dissemination of its research has led EMBRAPA into extension activities, coordinating with and assisting the federal and state systems.

## C. Health, Nutrition, and Sanitation

### 1. Health

In World War II, the U.S. had begun to provide assistance to Brazil for the improvement of health services, mainly through a jointly administered cooperative entity known as the Servicio Especial de Saude Publica (SESP). Most of the early work was in the Amazon region, where malaria and other tropical diseases impeded the procurement of commodities desired for wartime use. The U.S. provided technical specialists to work with SESP, training in the U.S. for its staff, grants for equipment, and loans for major projects in malaria control.

Cooperation in health projects was the longest sustained activity in U.S. assistance, being sponsored in turn by the Institute of Inter-American Affairs, Point IV, and AID. Additionally, a great deal of assistance was provided directly by the U.S. Public Health Service and by U.S. private foundations and medical groups.

By 1960, when AID established its work in health, SESP had become a semi-autonomous foundation within the Ministry of Health, providing health clinics, public health education, occupational health services, nursing education, dental care, sanitary engineering services, and epidemiological studies.

During the early 1960's, AID supported SESP with funding and technical assistance on a major program to improve the health situation in the Northeast. Grants and loans were made for construction of health centers, purchase of mobile health units, potable water systems, and sanitation systems. AID provided training for staff in Brazil and in the U.S. As in other projects providing services to people, there were notable benefits but also many problems. In particular, it was difficult to reach and help isolated rural dwellers; often there was inadequate long-range support and competence to maintain health centers and water systems once they were built.

From the mid-1960's onward AID increasingly directed its assistance toward improving the overall competence of the Ministry of Health in planning and administration. AID support helped to establish a Planning, Evaluation, Research, and Special Studies Unit (PWRSP). Two large loans were made for malaria eradication, in 1964 and again in 1968. The final assistance provided by AID was a sector loan in 1973 for \$7.6 million to assist the expansion of integrated health delivery systems.

The SESP at present is the dominant force in Brazil for public health activities. In addition to its own operations, it helps to establish state agencies and to train their personnel.

## 2. Nutrition

In family planning, Brazilian students participated in training through the AID-supported Latin American Regional Training Project designed to provide participating countries with qualified paramedical and other health personnel. The training covered demography, research, communication, curriculum development, population education, clinical facilities, and administration and management. Brazil's participation in this regional program started in the early 1970's and continues today.

AID provided food commodities through Food for Peace. It also gave grant funding between 1963 and 1974 to the Brazilian National School Feeding Campaign (CNAE) of the Ministry of Education and Culture. The grant program provided management assistance, support staff, training courses for CNAE regional coordinators and participant training. The program encompassed nutrition education in schools, milk distribution to infants and lactating mothers, development of training manuals for administration of local maternal/child care programs, and participant training of officials.

The Brazilian Institute for Municipal Administration (IBAM) was employed to establish administrative mechanisms for participating municipal agencies. A Works Front Program in the Northeast provided supplemental feeding as partial payment to rural workers employed in regional and community development projects.

Between 1971 and 1976, the CNAE introduced two fortified staples -- mandioca flour and bread -- and promoted the use of high protein foods and food additives such as fish concentrate in maternal health programs.

The Food for Peace program raised the Brazilian consciousness regarding nutrition at the school age level and established school feeding as a national priority. Moreover, with the levels of feeding involved, the program strengthened Brazilian organizational capacity to transport, store, deliver, and administer commodities.

### 3. Sanitation

AID loans to the predecessor agency of the National Housing Bank, launched the Government of Brazil's efforts in the field of sanitation. From 1961 to 1977, AID capital assistance projects amounting to \$45 million supported the construction of sewage and treatment facilities through the Guanabara Water Project. Funds were provided largely through the National Housing Bank for distribution to municipalities.

Funds covered construction costs as well as equipment. Loans and technical assistance which accompanied them were programmed in conjunction with the development of a National Sanitation Plan, PLANASA.

With assistance of the National Housing Bank, state level water treatment facilities were gradually established to take over sanitation functions from municipalities and better qualify sanitation projects for National Housing Bank loans.

The SESP Foundation, mentioned in the sub-section on health assistance, assisted local, state and federal institutions in water treatment and sewer system planning and operation. The Foundation's role was normative, not operational. It set water quality standards, operational norms and undertook planning, system development and training.

The National Sanitation Plan finally reached 250 cities and most smaller municipalities. The state system of Sao Paulo which operated its own sanitation works is an important exception.

D. Public Administration

The public administration programs in Brazil extended over approximately 20 years from the early 1950's to the early 1970's. The focus was on development planning, statistics for development administration, tax and financial administration, public safety, state and municipal administration, and higher education in the field of public administration.

Major public administration institutions were strengthened at the national level, most notably the graduate schools of public administration of the universities of Sao Paulo, Rio Grande do Sul, and Bahia as well as the Getulio Vargas Foundation, and the Administrative Department of Public Service (DASP). At the state and regional levels support was provided to the Institute for Public Services (ISP) based in Bahia, the Regional Center of Municipal Administration based in Pernambuco (CRAM), and the Regional Center for Administrative Training (CERTA) based in Ceara.

Many of these organizations themselves went on to establish other training and technical assistance agencies in the field of public administration. At least one major institution receiving key developmental assistance from the program--Brazilian Institute for Municipal Administration (IBAM)--helped in the development of similar institutions in nine Latin American countries from Guatemala to Paraguay.

Program costs were approximately \$32 million and the support of 90 long-term technical advisors. Other forms of assistance included building construction loans and equipment such as an IBM 370 computer system. Approximately 500 professionals received training in graduate public administration. Those participant trainees have gone on to become professors and high level officials in the public sector.

The 'Improvement of Government Administration' project relied heavily on long-term advisory services. Specialists were assigned in groups to various departments within DASP (Administrative Department of Public Service). They were given general advisory responsibilities. Advisory groups were organized around functional specializations such as personnel classification, organization and methods, budget and financial administration and personnel. However, their effectiveness was weakened by their physical location outside of DASP and by their not being formally responsible to DASP staff. A similar form of long-term advisory service was supplied in the Development Planning and Administration project.

Long-term advisory services were provided in the Statistical Development Project. These advisors were assigned specific responsibilities in systems design and procedures and had closer relations with counterpart staff than in the DASP model. The tax administration project used long and short-term advisory services, employing an IRS team working with the Government in overall tax systems reform, data gathering and enforcement.

Projects such as the Regional Centers for Administration and Training and Municipal and State Administration used short-term specialists. In the Northeast a USAID Public Administration Officer maintained close advisory relations with the project institutions. Financial assistance was provided to cover operating expenses, staff salaries, and equipment and materials. Large scale cruzeiro assistance was provided in the Municipal and State Administration project for building construction.

AID's practice of using long-term technical advisors in the late 1950's and early 1960's was less effective than the later use of short-term professionals supported by direct hire AID staff. Long-term experts as well as AID's later use of salary supplements and staff training tended to establish dependencies which, when AID support was removed, made later adjustment difficult. Some institutions in the Northeast failed at that point while others recovered only after an initial shock. For these institutions, recovery was generally sparked by an influx of previously AID-trained public administrators and teachers.

Overall the public administration programs were judged successful, particularly during the stabilization years when the environment was highly favorable to government reform and improvement. Programs created and reinforced public administration operational and training institutions.

A large number of the trained Brazilian professionals went on to teach at and develop public administration institutions established and supported by AID. In 1960, there were only a few public administration training institutions. Today, there are more schools of public administration in Brazil than law schools.

Achievements were greatest in those AID projects which focused on the establishment of administrative systems, such as the tax reform effort and the statistical development project which included American technology and equipment. American technology was generally regarded as superior and successful. Systems combining U.S. technical assistance and U.S. technology were adopted as a whole, using staff trained by AID for implementation.

#### E. Public Safety

The most controversial of all technical assistance and grants were those which AID provided in public safety programs, totaling \$8.3 million from 1959 through 1974. AID's program was designed to improve policy procedures and practices, at state and federal levels. This was done through participant training in the U.S. and in Brazil, provision of technical advisors to police academies, introduction of improved systems for training, records, organization, and management, and grants for communication and office equipment.

The existence of a military dominated government from 1964 onward, with police forces involved at times in repressive political action, directed unfavorable publicity toward technical assistance in public safety. Few Brazilians questioned the need for better police training and procedures but foreign assistance for this purpose was widely perceived as involvement in too politically sensitive an area.

A review of the program indicates its positive impact on the police academies, both federal and state, and in capabilities for law enforcement, particularly with respect to records and communications. However, in the face of rising criticism the program was sharply reduced in 1971 and terminated in 1972.

The experience in Brazil suggests that technical assistance in politically sensitive areas is better provided by direct contract between national and foreign entities, without intermediary services of a development agency such as AID.

#### F. Road and Highways

An inadequate road network and poor road maintenance were among Brazil's greatest infrastructure deficiencies. Assistance in building and maintaining roads was a principal activity throughout the AID era. Technical advisors were provided, largely from the U.S. Bureau of Public Roads (BPR). Loans for construction were made both in dollars and in counterpart cruzeiros. Loans were also made for import of needed highway equipment.

Initial activity centered on Northeast Brazil, which in the early 1960's had few all-weather roads. AID advisors participated directly in the road design and construction. They provided further assistance in restructuring the state and federal highway departments, in establishing training programs, and in procuring suitable equipment.

Neither SUDENE nor local contractors had adequate management or procedures to use funds effectively. Matching cruzeiro inputs by the state and federal agencies, overcome by rapid inflation, were frequently insufficient to complete projects. Of \$38.4 million loaned by AID to SUDENE in 1964, only \$24.5 million was actually disbursed, involving long delays. In the early 1960's progress was disappointingly slow, but over the decade the road system of the Northeast was considerably improved.

Eventually the capital cities of the Northeast and the agricultural zones of the interior benefited by all-weather roads. Completion of these roads was regarded at the time as one of the principal AID achievements in the Northeast. Once established, roads fell quickly into disrepair because of insufficient management and maintenance. In 1985, the road network remains a principal problem in the Northeast. Efforts are being made today to re-establish the training and maintenance programs introduced by the Bureau of Public Roads (BPR) with AID in the 1960's.

Later in the decade, assistance shifted toward the more developed areas of central and south Brazil, particularly the states of Minas Gerais, Sao Paulo, and Rio Grande do Sul. BPR technical advisors assisted in road design and construction, which was financed largely by the state and federal governments. AID loans were made chiefly for the import of equipment needed in construction and maintenance. These loans did not work out very well. Brazilian manufacturers were developing a capacity to produce this type of machinery. The import of U.S. equipment was blocked by a law prohibiting import of goods manufactured domestically. Sao Paulo used only \$8.6 million of a \$20 million loan; Rio Grande do Sul used only \$5 million of a \$13 million loan.

One of the AID projects assisted by both advisors and by a large cruzeiro loan was the four-laning of the Rio-Sao Paulo highway, in the most developed and intensively used area of the country. While clearly a development need, support for this highway was of a greatly different nature from the initial pattern of AID efforts, designed to help underdeveloped regions.

In AID's closing years, road projects returned to the rural areas. A sector loan of \$25 million was made to the National Economic Development Bank which administered a program of rural road construction. A principal objective was establishment of farm-to-market roads in the Northeast and other less developed areas.

From today's point-of-view the most helpful form of AID assistance was technical assistance, improving Brazil's capacity to build and maintain

roads. Personnel were trained and institutions established which continue today and have become steadily more productive. The experience with capital loans for construction, maintenance, and equipment was less rewarding. Projects repeatedly ran into contracting, operational, and legal problems which were frustrating to the AID officials involved. All too often, after the roads were built, the ongoing maintenance was inadequate and costly inputs had to be made again in re-construction.

#### G. Electric Power

Greater capacity in generating and transmitting electric power had been among the chief recommendations of the Brazil-U.S. Joint Commission of the early 1950's. The country, notably short in fossil fuels, had tremendous hydroelectric potential. After the commission's work, neither funds nor personnel were adequate to progress very far in the planned expansion. Meanwhile, the power shortages were worsening in all parts of the country, holding back industrialization and economic growth in the more developed areas, and preventing the expansion of lines into poorly developed regions.

Commission-designed projects, therefore, were already available to utilize quickly a considerable portion of the AID funds available for infrastructure. AID's dollar loans for electric power totaled \$20 million, about 30 percent of all capital loans for infrastructure. Almost all of these loans were made in the five-year period 1963-1968.

After program loans, electric power was by far the largest financial input of the AID era. The loans were made at a time when Brazil had no other sources for such financing. AID was in effect the banker for the projects, a role which ended when alternative financing was again available. Even without AID the projects would have been built eventually. AID funds, however, greatly accelerated the process and contributed importantly toward the rapid industrial growth of the early 1970's.

The technical assistance provided by AID is considered today as a component of perhaps equal importance. In-country AID advisors worked

closely with those responsible for project design, construction, and supporting facilities. Large numbers of engineers were sent for training at Rensselaer Polytechnic Institute and other U.S. universities; many received master and Ph.D. degrees in electrical engineering. Augmenting this, the government-owned holding company for electric utilities, Eletrobras, assisted by AID, established an elaborate program for ongoing in-house training facilities for engineering and management personnel. In the first phase, 50 engineers were trained in the U.S; in the second, participant training at the post-graduate level was established at sites throughout Brazil. Today Eletrobras sponsors 138 different courses at 26 Brazilian universities covering all aspects of electric power, including a master's degree program begun with AID assistance in Minas Gerais.

Principal beneficiaries of the rapid growth in electric power were the more developed areas of the south central region, particularly Sao Paulo and Rio de Janeiro, and the coastal cities of the Northeast. In the Northeast and elsewhere in the less developed areas, AID provided technical assistance in rural electrification. The problems here are largely transmission and distribution. One of the important producing facilities helped by AID was Boa Esperanca, in the remote Northeast state of Piaui. This was an important supplement to power previously available only from Paulo Alfonso on the San Francisco River. Boa Esperanca made possible a grid facilitating the rapid expansion of lines in rural areas of the region.

In retrospect the acceleration of construction and training in electric power appears as one of AID's most important contributions to Brazil's development. Electric power now provides most of Brazil's energy. Availability of power was a significant factor producing the growth surge of the early 1970's. When the world oil crisis struck in 1974, electric power helped Brazil to alleviate its effects. Projects since AID's departure have vastly increased the total availability of power. Further expansion is still taking place.

## H. Science and Technology

Raising the capacity and skills in science and technology in Brazil was an important objective for many of AID's programs. Much of the effort in university support and in graduate training was supportive of this objective.

Soon there became evident a need not only for training but also for the establishment of research facilities capable of providing comprehensive, market-oriented, state-of-the-art research services to private industry and to agriculture. By 1973, the inadequacies of the existing facilities were clearly a restraint on economic growth. For example, the testing of Brazilian railroad equipment, in large part manufactured locally, was being done abroad with consequent delays and high expense. The food industries, trying to meet the unique Brazilian demands, were relying excessively on research and production techniques of foreign countries.

For agriculture, the research needs caused AID to support the organization in 1973 of EMBRAPA, described earlier in this report. In the same year, AID agreed to provide assistance to the state of Sao Paulo, the leading industrial area, for the advancement of industrial sciences and technologies. The areas of special interest were food technology, metallurgy, building materials, testing laboratories, product standards, quality control, and market research.

AID provided a \$15 million loan to the Sao Paulo State Council of Technology (CET) which, for coordinating purposes, established the Fundo Estadual de Desenvolvimento Cientifico e Tecnologico (FUNCET). Also AID provided an institutional development advisor and U.S. training for participants. The operating entity for industrial research was the already established Instituto de Pesquisas Tecnologica (IPT). The Denver Research Institute was contracted to work with the IPT, assisted by teams from U.S. universities including Vanderbilt, Stanford, and MIT. Assistance was provided also by U.S. government entities, most notably the National Bureau of Standards.

For agro-industry, there was established the Instituto de Tecnologia de Alimentos (ITAL). Technical assistance was provided by U.S. nutritional and food processing specialists; AID provided also advanced training in the U.S. for program participants.

Both of the research operations have become important Brazilian institutions. IPT, in addition to independent and contract research, serves as the equivalent of the U.S. Bureau of Standards. ITAL has helped producers improve greatly the processing of fish, meat, vegetables, and fruits, establish better nutritional standards, and modernize packaging and labeling.

Results achieved in this loan are widely regarded as one of AID's most valuable contributions to Brazil's development. However, it raised important questions regarding the nature and purpose of U.S. assistance programs. In sharp contrast to AID policies of the early 1960's, the loan was made to the state most advanced in development. The state could have funded the institute itself; it desired AID assistance primarily because of the highly concessionary loan terms and the linkage which AID provided with U.S. research institutions. For AID, the loan was considered desirable to maintain the orientation of Brazil's most advanced research institutions toward cooperative effort with the U.S. building on and enhancing the linkages established in its previous assistance efforts.

In reviewing the loan, the U.S. Comptroller General asserted that the highly concessionary terms were unjustified, that the state of Sao Paulo could have used other resources for the project without AID assistance, and that AID funds were appropriated by Congress to help meet needs in underdeveloped regions.

The industrial research loan, the last major AID operation in Brazil, was the final act in 13 years of changing strategy in development assistance. AID's operations began with an emphasis on delivering services to people in Brazil's most underdeveloped region. They ended 13 years later with a loan to advance science and technology in Brazil's most developed region.

## I. Promotion of Private Enterprise

AID's strategy for promoting private enterprise focused on the improvement of management capabilities, development banking and capital markets. This was implemented by selective technical assistance to advanced business schools, participant training, industrial seminars, and provision of advisors in credit and investment institutions.

AID's loans supported government-sponsored enterprises and related only remotely to private initiative. No other sources of dollar financing were then available. Several loans were important. In its early years, AID made a few dollar loans for industrial installations in the Northeast, none of which were very successful. Several more loans were provided in the first stabilization years, the largest being \$14.8 million for a fertilizer plant, again with little success.

Much more important were AID's cruzeiro loans to the National Economic Development Bank, for re-lending in economic development. In dollar value, calculated at exchange rates when repayments were made, these totaled over \$100 million, much of which was used in credit to private enterprise.

In 1965, AID provided a dollar loan of \$11 million to a new agency, Financiara for Project Studies (FINEP) for the purpose of funding feasibility studies for new commercial projects.

In AID's final years, sector loans became a principal instrument for promoting private enterprise. The Northeast Development Bank was assisted in 1971 with a \$10 million dollar loan for establishing a regional training and research center in the Northeast, to promote small and medium industry. In the same year, a dollar loan of \$15 million was made to assist the establishment of a capital market development fund (FUMCAP) in the Central Bank of Brazil. The loan provided seed capital for investment banking and for enlarging the public market for stocks and bonds. In conjunction with the loan, AID provided technical assistance utilizing the resources of the U.S. Securities and Exchange Commission to improve regulatory and market practices. Within a few years, a healthy capital market developed.

As in other sectoral activities, AID assistance began with direct assistance to a few industries and ended with broad sectoral support of Brazilian programs.

J. Labor Relations

AID was not directly involved in labor programs in Brazil, however, it funded the operations of the American Institute for Free Labor Development (AIFLD). Inevitably, the expenditures for this purpose were criticized by those opposed to unions and at times there was considerable political sensitivity on the issue.

During the AID era, approximately \$4.3 million in grant funds were provided to the AIFLD. They were used for participant training in the U.S. and in Brazil, for leadership exchange travel, and to assist local unions in promoting free, non-communist labor objectives. This enabled the U.S. labor movement to maintain contacts with existing and future leaders in the Brazilian labor movements and to assist their efforts in Brazil.

Overall, during the AID era, union action in Brazil was greatly restricted by the military dominated government. Wage levels were established by government edict, strikes were banned and political activity suppressed. AIFLD's principal objective was to maintain contact and to help in preparing leadership for the future. Today, the Brazilian unions are gradually recovering a greater freedom of action. Their leadership includes many of those who cooperated with AIFLD in the AID era.

## Section V

### AID ORGANIZATION AND PERSONNEL

In this section, the character of AID's organization and personnel are described to provide a broader picture of the implementing apparatus of Brazil programs. The nature of this implementing apparatus significantly influences the achievements in technical assistance, economic stabilization, and in strengthening human resources and institutions.

AID had continuing difficulties in recruiting and maintaining staff capable of working harmoniously with Brazilian counterparts. Many failed to overcome cultural and language barriers, particularly in the Northeast and in rural areas. Some were technically competent but easily frustrated. Sources knowledgeable of AID operations say that less than half of U.S. personnel were able to work successfully within the Brazilian environment and with Brazilian agencies. The difficulties were greatest on projects providing services directly to people in the less developed regions. American personnel worked much better in the area of high-level planning, institution building, and in the more developed regions. AID's technical assistance programs, along with economic stabilization and capital loans, similarly, were more successful in the latter areas.

AID attempted to compensate for personnel deficiencies by increasing its numbers. By the mid-1960's, about 500 U.S. personnel were employed in its programs, supported by some 400 locally hired Brazilians. This was a quadrupling of the numbers four years earlier. The less competent individuals were not only unproductive but in some cases caused friction and program setbacks. There was much experimentation using direct hire, contractors, and participating agency service contracts (PASA) in an effort to find the best means for acquiring needed personnel. Each method had advantages: for example, contracts with universities to assist in setting up business schools and assistance of PASA specialists to help in tax reform were the most practical means of technical assistance in those areas. However, contractors sometimes recruited poorly-screened staff rather than

drawing on in-house talent. The PASA agencies occasionally sent mediocre staff or those nearing retirement.

The American staff in AID's early years was predominantly direct hire; from 1965 to 1968, it was mostly contract and PASA; from 1969 onward, it returned to direct hire. In AID's final years, 1969-1974, American staff was less than half that of the mid-1960's.

Brazilian and American sources today believe that the AID operation in the 1960's was chronically overstaffed. While attributable in part to trial and error in employment practices, and the difficulty of finding people effective in the Brazilian environment, the overstaffing reportedly impaired effective performance and in some cases made working relationships more difficult.

The need for personnel was increased by maintenance of two headquarters, in Rio de Janeiro and in Recife, each with staff for programming, operations, supervision, monitoring and maintenance.

A large amount of financial support was required to provide fringe benefits beyond those normally available to government employees. Benefits were established to make AID employment more attractive, in particular to compensate for disruptive short-term assignments. Financing came largely from a Brazilian-held trust fund established with counterpart cruzeiros, to be used by mutual agreement for local costs of technical assistance and other mutually agreed purposes. Liberal support for AID personnel in the form of housing, provision of furniture, vehicles, drivers, household services, and schools was provided.

The rapid increase in U.S. staff probably could not have been achieved without these benefits. On the other hand, they set AID's U.S. employees apart as a privileged class, particularly in Recife, a small city where the U.S. presence was very noticeable.

Education and agriculture sectors used the most U.S. personnel. In 1967-68, of an estimated 338 American employees, about 80 were in education and 50 in agriculture. Other areas of special importance were health, public safety, and Food for Peace. Some projects relied on short-term personnel where the levels fluctuated greatly. This was particularly the case during the stabilization years of 1964-68.

## Section VI

### CONCLUSIONS AND RECOMMENDATIONS

#### A. Assisting Development through Institution-Building: The Brazilian Experience

During the course of its thirteen years in Brazil the Agency for International Development changed its objectives and strategy several times and utilized a wide variety of techniques in the effort to promote and assist the process of social and economic development. In the early years, there was a considerable element of experimentation in searching for means to improve levels of living in Brazil's poorest regions. Thereafter, there was a shift to economic stabilization and economic growth at the national level, followed in the final years by an emphasis on the building of institutions needed in an advanced developing country.

Because of the shifting objective and programs, it is not possible today to make categorical judgments on AID's effectiveness overall. However, it is possible to identify the specific AID inputs which retrospectively, in 1985, appear to have made the most positive and lasting contributions toward assisting Brazilian development. Conversely, there were some activities which had only transitory or marginal importance.

Broadly speaking, AID had its greatest successes in helping to build the institutions needed for Brazil to function as an advanced developing country. These institutions survive today; while early beneficiaries were largely the more developed areas the long-range impact has been to improve life in the less developed regions as well. AID in the mid-1960's succeeded also in helping Brazil to stabilize its economy and to move into an era of strong economic growth. Long-range continuation of such gains is overwhelmed by cyclical changes; Brazil again seeks help today for stabilization programs. However, the AID stabilization programs fulfilled Brazil's needs at the time and, perhaps more importantly, provided the environment in which institutions could be reformed and structured for future needs.

Less successful were in the programs and projects intended to improve levels of living for people in Brazil's poorest regions. This was AID's original objective; it was the principal activity in the early years and the effort continued during the entire period of assistance. Gradually the character of the AID effort changed from direct participation in providing schools, health centers, food, and services toward enhancement of the Brazilian capacities to do these things themselves.

In assessing AID's effectiveness, the Checchi team was impressed particularly by the several achievements listed below. The judgments therein are drawn from the descriptive data in previous sections of this report, from observation of Brazil's development today, and from interviews with many people in Brazil who were associated or acquainted with AID's programs and projects.

1. The most important and lasting AID contribution was the assistance to institutions enhancing Brazil's capacities to deal with problems of a rapidly growing, modernizing, and increasingly complex society

2. Re-structuring of the university system was an outstanding accomplishment in the area of institutional change

- Universities participating in the AID programs were well selected, strongly motivated, firmly established, and able to carry on after the end of AID assistance.
- The single most important component within the university program was training in the U.S. at the graduate level. Closely allied was the work of U.S. university teams within the Brazilian universities, contracted by AID to plan the restructuring and to select the faculty and students for advanced training.
- Universities assisted by AID provide much of the staff today for upgrading other universities and research institutions, and much of the leadership in industry and government.

3. Improvement of research institutions was a major contribution advancing the pace of Brazil's development

- AID helped to make this possible, in part by improving graduate level instruction in the universities and in part by direct financial support for research institutions.

- Agricultural, industrial, and economic research now moves forward under its own momentum, placing Brazil in a leadership position among the developing countries.
4. AID assistance helped to establish institutional changes improving efficiency in government, particularly in the federal ministries

- AID-assisted reform of the federal tax structure and collection procedures significantly increased government revenues and speeded economic stabilization.
- Effective planning boards were established in many agencies. While the most notable of these were in the Ministries of Planning, Education, and Health, effective planning boards were also established at federal and state levels for power, highways, and local schools and services.
- Assistance provided to the government-owned electric utility, Eletrobras, was notably successful in establishing continuing programs for professional training and planning.
- The planning assistance was most effective in technically-oriented agencies. There was less success and some failures when planning was attempted in politically-influenced or highly traditional sectors, for example the state and local agencies in the least developed regions.

5. Institutions for development and investment banking were greatly improved by AID assistance

- AID funds in dollars and cruzeiros channeled through the National Economic Development Bank and the Bank of the Northeast, and its cooperative effort in planning of projects, enabled these institutions and their supporting financial entities to increase significantly the pace of industrial, agricultural, and infrastructure growth.
- AID technical assistance and loans made it possible for the Central Bank to establish a capital market development fund, to improve the organization and regulation of the security markets, and to make the capital market a principal source of funds for development.
- AID assisted the private sector in training, seminars, and in public infrastructure such as marketing facilities.
- In the early years, AID made a few capital loans directly to private industry, mainly because other financing was not then available. These were troublesome and soon discontinued.
- Except for the successful effort with Eletrobras, AID avoided the provision of funds to state enterprises, several of which expanded rapidly in the latter years.

6. Direct financial inputs assisting economic stabilization were necessary and highly effective in 1964-66; subsequent program and sector loans were oriented increasingly toward development and thus more discretionary

- AID program loans from 1964 to 1966 were essential in helping Brazil to achieve rapid economic stabilization and to improve the environment for social and economic development. They were highly concessionary, timely, and well-coordinated with needed fiscal and social reforms.
- Program loans in 1967-68 were useful and effective in assuring continuance of the stabilization effort, but the highly concessionary terms were less critically needed and more difficult to administer. Increasingly they were conditioned to meeting stabilization goals and on larger imports from the U.S.
- Sector loans from 1968 onward were tied directly to the dual objectives of financial support for Brazil and to the expansion of institutions and infrastructure important to Brazilian development. Brazil had achieved many of its stabilization goals and had funds available in its own resources, directing them in some cases to development projects of low priority, particularly the Amazon Highway. Highly concessional AID loans were no longer critical; however, they did deliver assistance of the type helpful primarily to a country in the advanced stage of development.

7. Speeding the development of electric power was the most important AID contribution to physical infrastructure

- AID financing made possible an early and essential increase in electric energy production and transmission at a time when no alternative financing was available.
- The loans were well coordinated with institution-building in Eletrobras and other entities producing and distributing electric power.

8. Loans and technical assistance for road and highway construction had mixed results

- Projects were delayed and sometimes blocked by inadequate institutional structure in Brazil.
- Institution-building was particularly difficult in the Northeast and the poorly developed regions, which were AID's chief targets in the early years.
- In latter years, the chief beneficiaries of AID assistance were the more developed regions having better institutional structures and more resources for ongoing maintenance.

- Nevertheless, the AID assistance provided numerous roads and highways needed for development; it also provided basic institutional patterns and engineering skills which have been improving steadily in the years since AID's departure.

9. Provision of services to people, unless accompanied by institution-building, had little lasting impact

- Only small numbers of people were reached by the early AID programs in the Northeast designed to provide directly the construction of schools, health centers, water and sewage systems, agricultural supplies, and food.
- Without supporting institutions, physical facilities constructed under AID programs tended to be poorly maintained, sometimes used briefly or not at all.
- Assistance projects of this type could have been more effective as models for institutional development, rather than as area-wide programs for delivery of such services. Their numbers would have been fewer, more in line with resources, motivation, and the personnel which could be provided to operate them.
- These judgments relate to the impact which AID projects had on development; not to the delivery of transitory services such as food and medicines for crucial human needs in an emergency.

10. In technical assistance, the best results were achieved in small, well-defined projects in the more developed areas

- These small projects provided lasting impact in the form of institutions and activities oriented toward development, enhancing the capacity of Brazil itself to assist the less developed regions.
- The more developed regions were more strongly motivated and had greater capacity to utilize AID's technical assistance; also U.S. personnel were better adapted to provide assistance in this environment.

11. Income disparities increased during the AID era

- The economic growth which followed stabilization took place largely in the urban centers and productive agricultural lands of south and central Brazil, not in the underdeveloped regions originally targeted by AID.
- Brazil's own development strategy was directed consistently toward increasing the total national product, assuming that lower income groups would benefit eventually from growth in incomes at all levels, from greater capital investment, and from larger demand for all products and services.

- Reducing income disparities was an AID objective in its early years and again in its final years. However, there were no evident parallels in the prevailing Brazilian concept.

12. Institutions assisted by AID strongly desire to maintain the development linkages which were established with institutions in the U.S.

- Cooperative relationships and interchanges between U.S. and Brazilian institutions continue informally, but without the sponsoring role previously occupied by AID, they are gradually fading.
- Brazil today considers itself an advanced developing country; for its continuing development in the institutional area, it seeks cooperative arrangements rather than direct assistance.
- Such linkages could be strengthened by a small jointly funded program assuring the continuing exchange of specialists and placements in both countries for advanced training and research.

B. Suggestions for Further Study

Institutional development and growth in Brazil was a principal objective of the AID programs. The efforts were largely successful and the institutions today are flourishing. The Checchi team believes that study of selected institutions would contribute to a better understanding of the development process in Brazil.

- Brazilian Agricultural and Livestock Research Corporation (Empresa Brasileira de Pesquisa Agropecuária - EMBRAPA). Various approaches were attempted in an effort to establish a workable system in research and extension. Gradually, the concept of a semi-autonomous institute to carry on research and to coordinate research and extension efforts of the federal and state government, rural universities, and agricultural and livestock industries evolved. AID provided support for EMBRAPA in its initial years. Today EMBRAPA is one of the leading agricultural research institutes in the Third World.

- Sao Paulo Technical Research Institute (Instituto de Pesquisas Tecnologica - IPT). This state-supported institute has been a principal

force in the expansion and coordination of technical research for industrial and commercial growth. It was assisted by the AID loan for science and technology for the State of Sao Paulo.

- The development institutions of Northeast Brazil. A study in this area would center appropriately on the Bank of the Northeast (BNE). With AID assistance, this bank grew rapidly and has become a principal instrument for development cooperation and growth. The study would include the several major development institutions founded to assist the Northeast, providing insight into overall development problems.

- Brazilian Ministry of Finance Tax Department. AID's project to increase the effectiveness and efficiency of tax collection was considered highly successful. Increased tax revenues contributed significantly to rapid national growth. From 1965 to 1968 gross receipts from income tax and excise tax on industrial products increased 100 percent. The federal budget deficit declined from 2.3 percent of GNP in 1965 to 0.4 percent in 1970. The rate of inflation dropped from 55 percent in 1965 to 20 percent in 1971. AID provided technical assistance in taxation through a PASA arrangement with the U.S. IRS.

- Brazilian Institutions in Economics, Business, and Public Administration. Studies of institutions in these areas could be made individually or in groups. Representative institutions include Getulio Vargas Foundation (FGV), Institutes for Economic Research of the University of Sao Paulo (IPE and FIPE) and the Institute for Municipal Administration (IBAM).

#### C. Recommendations for Maintaining an AID Relationship with Brazil

Brazil, as an advanced developing country, now has institutions with the capacity to plan and implement programs for its less developed regions. They provide staff training and development throughout the nation. However, these institutions are relatively few in number. Their funding and personnel are inadequate for keeping abreast of technical and technological advances outside Brazil. Continued close associations abroad are needed and desired. There are countries assisting such relationships, principally

Canada, Germany, France, and Japan, but among the institutions which previously received AID support, there is a strong preference for some ongoing but moderate assistance from the U.S.

This desire provides an opportunity for the U.S. to develop a strategy for Brazil, as an advanced developing country, providing limited assistance which has the following characteristics:

- highly selective in the institutional recipients
- designed to update and maintain professional competence
- facilitative in nature
- follows rather than pre-empts Brazilian patterns
- has rapid response
- beneficial for cooperating institutions in both countries
- has an administrative structure appropriate to the special needs of an advanced developing country

For implementation, the Checchi team suggests establishment of a U.S. government program with funds to promote and make possible a continuing exchange of faculty and research personnel at the doctoral, post-doctoral, and specialized professional levels; exchange of professional experts for consultative services; graduate level training and professional observational travel, and a unit in AID/Washington to serve as a clearing house for developmental institutions both in the U.S. and in Brazil.

In Brazil, there should be an officer for local operations. He or she should have executive and technical experience with AID development programs, administrative structures, and procedures. Within the Embassy, the officer would be responsible for maintaining close relationships with the selected institutions, for administration of the program, and for coordination with the Embassy's program in leadership exchange.

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Appendix A

LIST OF SIGNIFICANT PEOPLE INTERVIEWED  
CHECCHI BRAZIL STUDY

Airton Oliveira de Abreu  
Director-Superintendente  
CEMAR  
Centrais Eletricas do Maranhao S.A.  
SAO Luis

Jose Paulo Almeida e Albuquerque  
Vice-Reitor para Assuntos Academico  
Pontificia Universidade Catholica do Rio de Janeiro - PUC-RJ

Fabio J. R. Alvares, Assistente Do Presidente,  
Banco Nacional de Habitacao (BNH)  
Rio de Janeiro

Eliseu Roberto de Andrade Alves  
President  
Empresa Brasileira de Pesquisa Agropecuaria  
(EMBRAPA)  
Brasilia

Gaston Cesar de Andraje, Asesor, Former Director General,  
Fundacao Servicio Especial de Saude Publica  
(Fundacao SESP)  
Rio de Janeiro

Bertoldo Cruz Grande de Arruda  
Professor, Former Director,  
Instituto Nacional de Alimentos e Nutricao (INAN)  
Recife

Robert Ballantyne  
Interamerican Development Bank  
Rio de Janeiro

Professor Helio Barros  
Secretaria do Ensino Superior  
Ministry of Education and Culture  
Brasilia

Margarida Maria Costa Batista  
Retired, Former Director,  
Instituto de Servicios Publicos  
El Salvador

Alfredo Behrens  
Instituto de Pesquisas Economicas (IPEA-INPES)  
Rio de Janeiro

Professor Carlos Osmar Bertera  
Director  
Escola de Administracao de Empresas de Sao Paulo  
Fundacao Getulio Vargas

Maria Nubia Barbasa Bonfin  
Assessora-Chefe do Secretaria de Educacao  
Estado do Maranhao  
Sao Luis

Solange Lamejo Vieiro Borges  
Director, Centro Interdisciplinar de Servicios Publicos (ISP)  
El Salvador

Dr. Guilhenine Brandao  
Conselho National de Desenvolvimento Cientifico et Technico  
CNP  
Brasilia

Martin Bregman  
Northeast Business Operations  
Rio de Janeiro

Sra Euvides Brito  
Secretaria de Educacao  
Governo do Districto Federal  
Brasilia

Vicente de Castro Saraiva Camara  
Director, Brasilia Office  
SUDENE  
Brasilia

Antonio Carlos Coelho Campina  
Professor  
Faculdade de Economia e Administracao  
University of Sao Paulo

Cesar Cals  
Senador  
Former Minister of Mines and Energy  
Former Director of Boa Esperanca Hydroelectric Power Plant  
Brasilia

Paulo Alberto Sa Ribeiro Campos  
President  
Cia Siderurgica do Nordeste (COSINOR)  
Former Engineer with AID  
Recife

Jesus Irvandro Campo  
Director, Fundacao Instituto de  
Administracao Municipal (FIAM)  
Recife

Roberto Campos  
Senator  
Former Minister of Planning  
Brasilia

Joao Memede Cardoso  
Coordenador de Operacoes do Fundo  
Estadual de Desenvolvimento Cientifico e Tecnologia - FUNET  
Governo do Estado de Sao Paulo

Joao Carneiro, Administrador,  
Superintendencia de Desenvolvimento do Nordeste (SUDENE)  
Recife

Claudio de Moura Castro  
Director, Centro Nacional de Recursos Humanos  
Instituto de Planejamento Economico e Social (IPEA)  
Brasilia

Otavio Bulhoes  
Former Minister of Finance  
Getulio Vargas Foundation  
Rio de Janeiro

Darcey Clos  
Former Director de Recursos Humanos  
Servicio Federal de Processamento de Datos (SERPRO)  
Brasilia

Luis O. Coirolo  
World Bank Representative  
Recife

Aderbal Costa  
Assistant for International Affairs  
Siderurgia Brasileira (SIDERBRAS)  
Brasilia

Manoel Augusto Costa  
Instituto Brasileira de Estadistica e Geografia  
Director Geral, Centro de Estudios de Politicas de Populacao  
e Desenvolvimento  
Rio de Janeiro

Edmond Cummins  
Former Chief of USAID Road Projects in Northeast Brazil  
Rio de Janeiro

Stephen Dachi, Consul General  
U.S. Consulate Sao Paulo  
Former Director, Peace Corps Brazil  
Sao Paulo

Luiz Harold Dirickson  
Director Executiva  
Instituto de Pesquisas Technologicas do Estado de  
Sao Paulo

William Ellis  
Representative  
Interamerican Development Bank  
Rio de Janeiro

Ivan Fachinetti  
Retired, Former Director  
Instituto de Servicios Publicos (ISP)  
El Salvador

Celso Furtado  
First Superintendent of SUDENE (1959-1964)  
Rio de Janeiro

Maria Beatrix R. Oliveira Goncalves  
Secretaria General  
Conselho de Reitores das Universidades Brasileiras  
Brasilia

James Griffith  
Professor of Forestry  
University of Vicosa

Jose Jarbas Studart Gurgel  
Director of Aquaculture  
Departamento Nacional de Obras Contra as Secas (DNOCS)  
Fortaleza

Paula de Jesus  
Director  
Departamento de Recursos Humanos  
SUDENE - Superintendencia do Desenvolvimento do Nordeste  
Recife

Carlos Antonio Moreira Leite  
Departamento de Economia Rural  
Universidade Federal de Vicosa  
Vicosa

Paulo Matos de Lema, Director  
Centro Administrativo da Bahia, Secretaria da Industria  
Comercio, e Turismo  
Governor to Estado da Bahia - Salvador  
El Salvador

Ruy Aguiar da Silva Leme  
Professor  
Faculdade de Economia e Administracao  
University of Sao Paulo

Francisco Hijino Barbosa Lima  
Retired, Former Director  
Escola de Administracao  
Universidade de Pernambuco  
Recife

Samuel Levy, Professor of Economics  
Fundacao Getulio Vargas  
Rio de Janeiro

Luiz Carlos Danin Lobo, Coordenador  
Organizacao dos Estados Americanos (OEA)  
Brasilia

Deolindo Lopes  
Assistant for Foreign Cooperation  
Superintendencia do Desenvolvimento do Nordeste (SUDENE)  
Recife

Luiz Simoes Lopes  
President  
Getulio Vargas Foundation  
Rio de Janeiro

Marcos Jose Lopes  
Director de Engenharia  
Companhia Hidro Electrica do Sao Francisco  
Recife

Francisco Vidal Luna, Director  
Coordinadoria de Planejamento Regional  
Instituto de Planejamento Economico e Social (IPEA)  
Brasilia

Antonio Rocha Magalhaes  
Instituto de Planejamento Economico e Social (IPEA)  
Brasilia

Geralso Arias Maia  
Professor  
Department of Agronomy  
University of Ceara  
Fortaleza

Jacques Marcovitch  
Director  
Faculdade de Economia e Administracao  
University of Sao Paulo

George Martin  
Asesor  
Instituto de Planejamento Economico e Social (IPEA)  
Brasilia

Carlos Brunet Martins  
Director  
Centro de Ciencias Agrarias  
University of Ceara  
Fortaleza

Dionesio de Sousa Martins  
Professor de Administracao  
Escola de Administracao  
Universidad da Bahia  
El Salvador

Jose Augusto Martins  
Director, Escola Politecnica  
Universidade de Sao Paulo

Diego Lordello de Melo  
Director  
Instituto Brasileira de Administracao Municipal  
Rio de Janeiro

J. M. Pompeu Memoria  
Assistant for International Cooperation  
Empresa Brasileira de Pesquisa Agropecuaria (EMBRAPA)  
Brasilia

Ana Maria Mendonca  
Suplente Deputado Federal  
Congresso Nacional  
Brasilia

Antonio B. Morais  
Assistant to Director  
Departamento Nacional de Obras Contra as Secas (DNOCS)  
Fortalza

Raimondo Morrocos  
Secretario de Administracao  
Fundacao Sevcio Especial de Saude Publica (Fundacao SESP)  
Rio de Janeiro

Paulo Morte, Director  
Escola Brasileira de Administracao  
Fundacao Getulio Vargas  
Rio de Janeiro

Arthur Moura  
Mendes Jr. Company  
Former Defense Attache, U.S. Embassy  
Rio de Janeiro

Miguel Octavio  
Profesor de Administracao  
Universidade de Pernambuco  
Recife

Deogenes Walter Oliveira  
Secretario Adjunto  
Secretaria de Cooperacao Economica e Tecnica Internacional (SUBIN)  
Secretaria de Planejamento da Presidencia da Republica  
Brasilia

Edgar Arlindo de Mattos Oliveira  
Secretario de Educacao  
Recife

Joao Batista Araujo de Oliveira  
Programa Nacional de Desburocratizacao  
Brasilia

Afonso Celso Pastore  
Former President of Central Bank  
Faculdade de Economia e Administracao  
University of Sao Paulo

Jarbas Passarinho  
Former Minister of Education and Culture  
Brasilia

George Peace  
Former Deputy Director  
USAID Recife  
Rio de Janeiro

Francisco Franco de Abreu Pereira  
Director of Irrigation  
Departamento Nacional de Obras Contra as Secas (DNOCS)  
Fortaleza

Jurandir Maraes Picanco, Jr.  
Vice Presidente de Planejamento  
COELCE - Companhia de Electricidade do Ceara  
Fortaleza

Omar Ribeiro  
Technical Director  
National Center for Storage Training  
Vicosá

Luiz Rocha  
Governador - Estado do Maranhao  
Sao Luis

Antonio Caldas Rolin  
Director Regional  
Fundacao de Assistencia Escolar (FAE)  
El Salvador

Emanuel Sader  
Chefe da asesoria de operacoes Especiais e de Relacoes Internacionais  
de Presidencia, Banco Nacional de Habitacao (BNH)  
Rio de Janeiro

Mario Cezar A. Sales  
Diretor de Planejamento  
DAER - Departamento Autonomo de Estradas de Rodagen  
Estado do Ceara  
Fortaleza

Edmundo Barbosa da Silva  
President  
Jari Forest Products Company  
Rio de Janeiro

Leonides Alves de Silva Filho  
Preseidente  
Instituto Nacional de Administracao para o Desenvolvimento, (INAD)  
Recife

Alvaro de Pinho Simnoes  
Representante en Brasilia  
Fundacao Servicio Especial de Saude Publica (Fundacao SESP)  
Brasilia

Mario Simonsen  
Former Minister of Finance  
Getulio Vargas Foundation  
Rio de Janeiro

Belmiro Siqueira, Retired Former Director Geral  
Departamento Administrativo do Servicio Publico (DASP)  
Rio de Janeiro

Alvaro Luis de Sousa  
Superintendencia de Desenvolvimento do Nordeste (SUDENE),  
Former Director, Centro Regional de Administracao Municipal  
Recife

Leda Maria Tajra  
Secretaria de Educacao  
Estado do Maranhao  
Sao Luis

Miro Teixeira, Secretario Geral  
Departamento Administrativo do Servico Publico (DASP)  
Brasilia

Joao Paulo dos Reis Velloso  
Former Minister of Planning  
President, Brazilian Capital Markets Institute  
President, Cia. Invesplan de Participacoes  
Rio de Janeiro

Walter Veloso, Director Regional  
Fundacao de Assistencia Esc/olar (FEA)  
Brasilia

Clibas Viera  
Vice Rector  
University of Vicosa

Beatric Warlich  
Professor of Economics  
Fundacao Getulio Vargas  
Rio de Janeiro

Stephen Wolynech  
Diretor - Departamento do Metalurgia  
IPT - Instituto de Pesquisas Tecnologicas do Estado de Sao Paulo  
Sao Paulo

Edison Zarur  
Chefe do Dept. de Capacitacao e Desenvolvimento de Pessoal  
Eletrobras - Centrais Eletricas Brasileiras, SA  
Rio de Janeiro

Appendix B

STATISTICAL APPENDIX

I. International Economic Assistance

A. U.S. Capital Assistance

1. Statement of AID Loan Implementation and Disbursement Progress, 1978.
2. Loans Authorized and Obligated by U.S. Agencies; Amounts of Disbursements, Repayments; and Balances Outstanding, 1946 - 1983.
3. USAID: Capital Assistance Expenditures, by Section, 1960 - 1983.
4. USAID: Dollar Loans Authorized, by Fiscal Year and Sector, 1962 - 1972.
5. USAID: Capital Assistance Projects, by Sector
6. Completed Cruzeiro Loans

B. U.S. Technical Assistance

1. U.S. Dollar Grants - Net Obligations, by Sector, 1960 - 1983.
2. Expenditures - Technical Assistance, by Sector, 1960 - 1983.
3. Technical Assistance Projects, by Sector.

C. Combined U.S. Capital and Technical Assistance

1. AID Expenditures - Total Assistance, by Year
2. U.S. Overseas - Loans and Grants - Obligations and Loan Authorizations
3. U.S. Foreign Assistance - Obligations and Loan Authorizations

D. Non-U.S. Assistance

1. Total Multilateral Assistance Flows (Net), 1960 - 1982.
2. Overseas Development Assistance Inflows, 1960 - 1982.
3. Total Overseas Development Assistance Flows from OECD Countries, 1960 - 1982.

II. USAID/Brazil Personnel Summaries

- A. U.S. Personnel Working for AID, by Sector, 1964 - 1972.
- B. U.S. Personnel Working for AID, by Employment Category, 1964 - 1974.
- C. Brazilian Nationals Working for AID, 1964 - 1974.

III. Development Interlinks Involving Universities

IV. Food for Peace

- A. Dollar Value of Commodities Programmed under Title I, Public Law 480 - Agreements Signed
  - B. Uses of Foreign Currency as Provided in Title I, Public Law 480 - Agreements Signed
- V. Macro Performance of the Brazilian Economy, 1951 - 1982.

MACRO PERFORMANCE OF THE BRAZILIAN ECONOMY, 1951 - 1982

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Table 1.1: BRAZIL - MACRO PERFORMANCE OF THE BRAZILIAN ECONOMY,  
1951-1982

Years	Annual Growth Rates (%)				Exports (US\$ million)	Imports (US\$ million)	Implicit GDP Deflator (%)
	GDP	GDP per Capita	Industry	Agri- culture			
1951-55	6.8	3.7	7.7	5.1	1,488	1,645	15.6
1956-60	6.9	3.7	10.1	3.8	1,333	1,382	20.6
1961-65	4.5	1.6	3.8	5.8	1,409	1,356	61.7
1966-70	7.2	4.7	9.7	0.8	2,065	2,081	26.9
1971-73	12.8	10.0	14.3	6.4	3,964	4,708	19.0
1974-78	7.0	4.4	7.7	5.1	10,429	12,588	39.3
1979	6.8	4.1	6.6	5.0	15,244	18,083	56.8
1980	7.9	5.2	7.9	6.3	20,132	22,955	94.7
1981	-1.9	-4.4	-5.4	6.8	23,293	22,080	109.1
1982/a	1.0	-1.5	1.2	2.0	20,175	19,397	100.0

/a Preliminary Estimates.

Source: Conjuntura Econômica, various issues; and  
FGV, Central Bank, Relatório Anual, various issues.

Source: Brazil: Economic Memorandum, World Bank, 1984

I. INTERNATIONAL ECONOMIC ASSISTANCE

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A. U.S. Capital Assistance

AGENCY FOR INTER-NATIONAL DEVELOPMENT

BUREAU FOR LATIN AMERICA AND THE CARIBBEAN

STATEMENT OF LOAN IMPLEMENTATION AND DISBURSEMENT PROGRESS

December 1978

(In Thousands of Dollars)

LOANS BY COUNTRY	BORROWER	AMOUNT AUTHORIZED	CURRENT AMOUNT	DATE AUTHORIZED	ACREDRITY SIGNED	YEARS TMS INT GR INT	TERMINAL DISBURSEMENT DATE		DISBURSEMENTS	
							ORIGINAL	REVISED	THRU 12/31/78	PERCENT DISBURSED
BRAZIL - 512										
L-004 Import Procurement	COB	74,300	74,300	11-16-61	11-20-61	40 3/4 10 3/4	6-10-62	6-10-62	74,300	100
L-007 Synthetic Rubber Plant	COPERNO	3,400	2,982	9-17-62	9-24-62	(10 5 3/4 4 5 3/4)	12-31-67	12-31-67	2,982	100
L-008 Development Bank	COPEC	4,000	4,000	9-17-62	3-06-63	40 3/4 10 3/4	3-31-67	3-31-67	4,000	100
L-009 Carbon Black Plant	CARBOROS	2,000	1,913	1-03-63	3-11-63	40 3/4 10 3/4	9-30-68	9-30-68	1,913	100
L-010 Emergency Stop Gap Assistance	B of Brazil	33,500	23,700	4-23-63	4-24-63	(81 5 3/4 31 5 3/4)	3-06-63	3-06-63	23,700	100
L-011 Santa Cruz Thermal Plant	Midrelect	15,100	15,300	4-20-63	9-10-63	40 2 1/2 10 1	9-30-73	9-30-73	15,300	100
L-014 CEMIG Power Plant	CEMIG	5,300	3,072	7-26-63	10-16-63	(20 5 3/4 21 5 3/4)	6-30-70	6-30-70	3,072	100
L-013 PE Highway Construction	SHUREZ	11,000	10,930	6-19-63	6-06-64	(20 5 3/4 3 5 3/4)	10-30-70	10-30-70	10,930	100
L-015A (Increase)	SHUREZ	7,400	2,160	2-17-64	3-05-64	40 2 10 3/4	3-31-68	3-31-68	2,160	100
L-016 SHUREZ/COEPOB - Emergency Power	SHUREZ	2,400	2,314	3-19-63	10-19-63	40 3/4 10 3/4	3-31-68	3-31-68	2,314	100
L-018 National Steel Mill	Siderurgica	5,300	5,492	3-28-64	3-22-64	40 2 10 3/4	6-30-68	6-30-68	5,492	100
L-019 PE Highway Equipment	CUDONG	9,000	9,000	2-18-64	2-18-64	(12 5 1/2 2 5 1/2)	6-30-70	6-30-70	9,000	100
L-020 Cast Pipe Expansion	Barbara	11,000	14,032	6-30-64	11-10-65	40 2 10 3/4	3-31-68	3-31-68	14,032	100
L-021 Malaria Eradication	COB	6,100	6,333	3-05-64	3-11-64	(7 5 1/2 2 5 1/2)	12-31-70	12-31-70	6,333	100
L-022 CEMAT Power Expansion	Gen. Elect	4,300	4,174	3-07-64	6-03-64	40 2 10 3/4	9-30-73	9-30-73	4,174	100
L-023 Furnas Transmission Expansion	Furnas	16,700	16,695	5-18-64	10-02-64	(23 5 1/2 3 5 1/2)	9-30-73	9-30-73	16,695	100
L-024 Stabilization and Development	B of Brazil	30,000	30,000	6-17-64	6-26-64	(33 4 1/2 21 5 1/2)	6-30-64	6-30-64	30,000	100
L-025 Pulp and Paper Mill	Olinbraff	800	748	6-28-64	11-23-64	40 2 10 3/4	10-01-69	10-01-69	748	100
L-026 Pelicoto Hydroelectric Power	COB	20,400	17,708	6-27-64	11-27-64	40 2 10 3/4	3-31-72	3-31-72	17,708	100
L-027 Petrolene Transmission Line	CHESP	7,000	6,375	6-27-64	10-09-64	(20 5 1/2 3 5 1/2)	10-31-70	10-31-70	6,375	100
L-028 Fertilizer Imports	COB	13,000	14,303	6-29-64	6-21-64	(23 3 1/2 10 3 1/2)	3-31-67	3-31-67	14,303	100
L-029 Air Navigation Aids	COB	2,700	2,375	6-30-64	9-04-64	40 2 10 3/4	6-30-74	6-30-74	2,375	100
L-032 Highway Consultants	SHR	1,000	945	12-21-64	3-26-65	40 2 1/2 10 1	3-31-68	3-31-68	945	100
L-033 TUPE Cement Plant	CV 447	800	788	3-21-65	8-03-65	(7 5 1/2 2 5 1/2)	5-30-69	5-30-69	788	100
L-034 Stabilization and Development	COB	150,000	149,910	12-08-64	12-14-64	(40 2 1/2 10 1)	3-31-67	3-31-67	149,910	100
L-038 Hardboard Manufacturing Company	Sucatas	1,940	1,940	4-03-65	3-11-65	(8 5 1/2 3 5 1/2)	9-30-68	9-30-68	1,940	100
L-041 COPEL Power Plant	Paracense	11,400	11,399	3-17-65	6-09-65	(23 2 1/2 2 5 1/2)	12-31-73	12-31-73	11,399	100
L-047 Niboa Corais Highway Equipment	State Hwy	15,000	12,071	3-20-65	7-23-65	(26 5 1/2 3 1 1/2)	12-31-74	12-31-74	12,071	100

LOANS BY COUNTRY	BORROWER	AMOUNT AUTHORIZED	CURRENT AMOUNT	DATE AUTHORIZED	ACREMENT SIGNED	TERMS			DISBURSEMENT DATE ORIGINAL	DISBURSEMENT DATE REVISED	DISBURSEMENTS	
						YRS	INT	GR			TOTAL	PERCENT
											12/31/78	DISBURSED
L-050	Rio Electric Distribution System	23,000	24,997	6-23-63	10-11-65	40	2 1/2	10	3-31-76		24,997	100
L-051	Sao Paulo Electric Distr System	15,000	14,997	6-23-63	10-11-65	(18	3 1/2	3	3-31-70		14,997	100
L-052	Hydroelectric Power Plant (Increase)	6,700	10,628	10-10-63	12-01-65	40	2 1/2	10	12-31-73		10,628	100
L-054	FINEP Feasibility Studies	1,000	8,365	3-24-67	6-26-67	25	3 1/2	6	3-31-76		8,365	100
L-055	Commodity Imports	150,000	149,519	10-28-63	2-10-66	40	2 1/2	10	12-31-70		149,519	100
L-057	Guabara Sewerage	2,500	2,163	1-19-66	8-18-66	40	2 1/2	10	9-30-72		2,163	100
L-058	Guabara Water	2,600	2,923	6-13-66	8-18-66	(20	3 1/2	3	7-15-73		2,923	100
L-059	Sao Paulo Highway Maintenance	20,000	8,372	6-29-66	6-18-66	(20	3 1/2	3	6-30-66		8,372	100
L-060	Highway Technical Assistance	400	391	6-27-66	3-28-68	40	2 1/2	10	12-31-73		391	100
L-061	Food Production No. 2	20,000	949	6-29-66	9-29-66	40	2 1/2	10	4-30-71		949	100
L-062	Mascarenhas Hydroelectric Power	33,300	12,307	6-29-66	6-18-66	40	2 1/2	10	12-31-74		12,307	100
L-063	Fertilizer Plant & Distribution	14,800	14,799	10-12-66	11-21-66	40	2 1/2	10	6-30-70		14,799	100
L-064	Program Assistance	100,000	99,427	3-01-67	3-11-67	(15	3 1/2	3	3-31-72		99,427	100
L-065	Mineral & Water Resources	8,400	5,331	5-23-67	11-29-67	40	2 1/2	10	12-31-75		5,331	100
L-066	Santa Cruz Thermal Plant	41,200	34,630	6-22-67	10-13-67	40	2 1/2	10	9-30-73		34,630	100
L-069	Rio Grande Highway Maintenance	13,700	3,805	6-22-67	12-21-70	(20	4	6	11-30-75		3,805	100
L-070	Power Training & T/A	717	702	10-23-67	10-23-67	(15	3 1/2	3	6-30-73		702	100
L-072	Malaria Eradication	10,300	10,250	3-11-68	3-21-68	40	2 1/2	10	12-31-74		10,250	100
L-073	Program Loan	75,000	72,564	3-29-68	3-23-68	40	2 1/2	10	6-30-72		72,564	100
L-074	Health Sector	15,400	15,246	3-29-68	1-23-70	40	2 1/2	10	12-31-74		15,246	100
L-075	Passe Real Hydroelectric	27,400	26,156	6-28-68	6-30-69	40	2 1/2	10	12-15-76		26,156	100
L-076	IBCE Statistical Development	3,800	2,625	6-28-68	8-13-69	40	2 1/2	10	6-30-77		2,625	100
L-077	Agricultural Research	13,400	10,243	6-28-68	3-09-71	40	2 1/2	10	12-31-77		10,243	100
L-078	Education Sector	32,000	32,000	6-29-68	11-13-69	40	2 1/2	10	6-30-75		32,000	100
L-080	Urban Sanitation	25,000	24,991	5-15-70	4-02-71	40	3	10	12-31-75		24,991	100
L-081	Education Sector	50,000	50,000	6-29-70	6-17-71	40	3	10	6-30-77		50,000	100
L-082	Rural Road Construction	25,000	25,000	2-26-71	11-03-71	(15	3	5	6-30-76		25,000	100
L-083	Northeast Agricultural Marketing	14,000	12,727	2-26-71	11-08-71	40	3	10	12-31-76		12,727	100
L-084	ME Agriculture & Marketing TA	1,000	908	2-26-71	11-08-71	(20	3	3			908	100
L-085	Electric Power Training & TA	2,500	2,094	3-13-71	10-29-71	40	3	10	12-31-76		2,094	100
L-086	Capital Markets Development Bank	15,000	3,276	6-24-71	9-14-72	(20	4	5	6-30-77		3,276	100
L-087	SE Small & Medium Industry Devel	10,000	10,000	6-29-71	2-28-73	40	3	10	12-31-76		10,000	100
L-089	Integrated Health Delivery Sys	7,600	3,464	2-21-73	8-20-73	(20	6	5	10-31-77		3,464	100
L-090	Higher Agricultural Education	7,600	5,766	6-29-73	1-30-74	40	3	10			5,766	100
Inactive Total											1,166,312	100
L-088	Science & Technology for Devel	15,000	16,913	2-21-73	5-30-73	40	3	10	7-31-79		16,913	69
Active Total											15,313	69
Country Total											1,181,625	99

BRAZIL: LOANS AUTHORIZED AND OBLIGATED BY U.S. AGENCIES;  
 AMOUNTS OF DISBURSEMENTS, REPAYMENTS, AND BALANCES OUTSTANDING, 1946-1983

(millions US \$)

Agency	Authorized and Obligated			Disbursements <sup>2/</sup>	Repayments Including Interest	Outstanding Dec. 31, 1983
	1946-61	1962-79	1980-83			
AID	0.5	1,311.0	-	1,311.5	469.4	715.6
Food for Peace (PL 480)	157.5	278.4	-	435.9	142.0	295.0
Other Economic Assistance <sup>1/</sup>	22.5	64.9	0.1	87.5	116.0	- 12.3
Military Assistance	-	272.0	-	272.0	305.5	- 40.9
Eximbank	1,155.3	1,775.6	305.0	3,235.9	3,467.9	59.8
All Other	-	70.0	31.5	101.5	122.2	- 19.8
Totals	1,335.8	3,771.9	336.6	5,444.3	4,623.0	997.4

Source: Agency for International Development.

<sup>1/</sup> Includes Social Trust Fund administered by Inter-American Development Bank.

<sup>2/</sup> Includes capitalized interest.

Brazil  
 EXPENDITURES  
 CAPITAL ASSISTANCE PROJECTS  
 1960 - 1983  
 (U.S. \$ 000)

Year	Agriculture	Industry and Mining	Transportation	Labor	Health	Education	Public Safety & Administration	Community Dev. & Welfare	Private Enterprise	Other	Total
1960 - 1961	0	0	0	0	0	0	0	0	0	0	0
1962 - 1964	0	4,279	0	0	0	0	0	0	0	0	4,279
1965	3,757	9,143	0	0	922	0	0	0	0	0	13,842
1966	7,893	21,491	6,259	0	38	0	0	0	0	3,062	38,743
1967	2,843	39,548	15,253	0	387	0	0	0	0	5,726	63,757
1968	3,799	34,957	8,396	0	434	0	0	0	1,218	961	49,765
1969	10,572	20,319	6,564	0	1,987	0	0	0	53	2,338	41,833
1970	0	17,118	6,355	0	1,494	0	0	0	0	1,562	26,529
1971	0	19,669	5,171	0	6,095	0	0	0	0	884	31,819
1972	0	15,455	2,111	0	6,692	0	0	0	0	1,336	25,594
1973	5,025	12,574	960	0	3,514	0	0	0	0	915	22,988
1974	3,783	9,271	11,907	0	9,902	0	0	0	3,563	334	38,760
1975	4,204	8,389	10,150	0	12,098	0	0	0	1,052	35	35,928
1976	300	832	6,740	0	107	0	0	0	89	0	8,068
1977 ) thru ) 1983 )	No expenditures listed										
Total	42,176	213,065	79,866	0	43,670	0	0	0	5,975	17,153	401,905

Source: AID/Washington.

**DOLLAR LOANS AUTHORIZED TO BRAZIL BY FISCAL\*YEAR AND SECTORS  
(\$ MILLIONS)**

<u>FY</u>	<u>POWER</u>	<u>IND/ MINING</u>	<u>TRANS/ COMM.</u>	<u>HOUSING/ UR.DEV.</u>	<u>EDUC.</u>	<u>HEALTH/ SANIT.</u>	<u>AGRI.</u>	<u>PRE- INVEST. TECH. ASSIST.</u>	<u>PROG. LOANS</u>	<u>OTHER</u>	<u>ANNUAL TOTALS</u>
1962	--	--	--	--	--	--	--	--	74.5	--	74.5
1963	15.5	4.9	13.2	--	--	--	--	4.0	25.5	--	63.1
1964	52.5	7.3	17.5	--	--	6.4	14.5	--	50.0	--	148.2
1965	51.4	2.8	13.9	--	--	--	--	--	150.0	--	218.1
1966	24.0	--	14.9	--	--	5.1	1.0	8.9	150.0	--	203.9
1967	40.8	--	5.5	--	--	--	13.2	--	99.8	--	159.3
1968	28.1	--	--	--	32.0	25.7	11.9	--	73.8	5.8	177.3
1969	--	--	--	--	--	--	--	--	--	--	--
1970	--	--	--	--	50.0	25.0	--	--	--	--	75.0
1971	2.5	10.0	25.0	--	--	--	15.0	--	--	15.0	67.5
1972	--	--	--	--	--	--	--	--	--	--	--
<b>TOTALS</b>	214.8	25.0	90.0	--	82.0	62.2	55.6	12.9	623.6	20.8	1,186.9

\*Net of cancellation, termination, and/or Deobligations. Deobligations deducted in year of authorization.

BRAZIL  
CAPITAL ASSISTANCE PROJECTS

AID DOLLAR FINANCED COSTS  
(Thousands of Dollars)

FIELD OF ACTIVITY PROJECT TITLE	DATES		TOTAL COSTS
	START	FINISH	
<u>AGRICULTURE &amp; NATURAL RESOURCES</u>			
Food Production-Fertilizers	--	1973	14,504
Resettlement Project	1959	1968	210
Northeast Agricultural Marketing	1973	1977	12,728
Mineral & Water Resources	1967	1977	5,331
Agricultural Research	1971	1979	10,245
Agriculture & Marketing	1972	1977	892
Higher Agricultural Education	1974	1978	6,845
TOTAL:			50,755
<u>INDUSTRY &amp; MINING</u>			
Fortaleza Emergency Power	1963	1965	2,315
Cemat-Power Expansion Program	1964	1971	4,179
Paranaense Power Expansion	1965	1973	11,390
Fornas-Transmission System	1964	1974	16,600
Peixoto Power Plan Expansion	1964	1972	17,709
Sao Francisco Hydroelectric	1964	1973	6,371
Rio Light SA	1965	1975	39,906
Da Bo Hydroelectric Company	1965	1974	10,622
Mascarenhas Hydroelectric	1966	1974	12,308
Santa Cruz Power Project	1963	1974	15,300
Elec Power System Expansion	1963	1967	5,072
Electrobas-Power Training & Tech. Assistance	1967	1975	702
Synthetic Rubber Plant	1962	1967	2,983
Chemical Recovery Systems	1965	1971	749
Carbon Black Plant	1963	1967	1,915
Food Production	1966	1968	969
Ultrafertil-Fertilizer Plant	1966	1973	14,800
Development Bank	1963	1966	4,000
Electrobas-Power Training & Tech. Assistance	1972	1977	2,090
Passo Real Hydro Plant	1969	1977	26,157
Santa Cruz Thermal Plant Expansion	1967	1975	34,631
Science & Technology Development	1973	--	14,799
TOTAL:			245,777
<u>TRANSPORTATION</u>			
Highway Engineering & Training Adv. Service	1964	1974	1,376
Minas Gerais Highway Department	1965	1973	12,871
Sao Paulo Highway Construction	1966	1975	8,573
Highway Construction	1964	1975	13,149
Highway Maintenance	1964	1973	14,832
Rio Grande do Sol Highway	1970	1977	5,005
Rural Road Construction	1971	1977	25,000
Air Navigation Aids	1964	1976	2,575
TOTAL:			83,381
<u>HEALTH &amp; SANITATION</u>			
Sursan Sewage Maintenance Equipment	1966	1973	2,165
Guanabara Water Company	1966	1973	2,923
Municipal Water System	1970	1975	15,246
Urban Sanitation	1971	1977	24,991
Integrated Health Delivery System	1973	1978	3,465
Malaria Eradication	1968	1974	16,584
TOTAL:			65,374

FIELD OF ACTIVITY PROJECT TITLE	DATES		TOTAL COSTS
	START	FINISH	
<u>PRIVATE ENTERPRISE/PROMOTION</u>			
Production Equipment/Machinery Expansion	1965	1973	9,338
Capital Market Development Fund	1972	1978	3,277
Northeast Small/Medium Industry	1973	1977	10,000
TOTAL:			22,615
<u>PUBLIC SAFETY &amp; PUBLIC ADMINISTRATION</u>			
Statistical Development	1969	1978	2,626
TOTAL:			2,626
<u>OTHER GENERAL/MISCELLANEOUS</u>			
Feasibility Study-Finep	1966	1974	8,365
TOTAL:			8,365
TOTAL AMOUNT FUNDED ON A LOAN BASIS			478,893
COUNTRY TOTAL AMOUNT FUNDED			478,893

COMPLETED CRUZEIRO LOANS

DECEMBER 31, 1978

<u>LOAN NO</u>	<u>BORROWER</u>	<u>PURPOSE</u>	<u>AMOUNT DISBURSED</u>	<u>DOLLAR EQUIVALENT*</u>
512-G-001	BNDE	Economic Development	Cr\$ 1,510,815.15	\$ 22,891,158
512-G-002	R:DE	Economic Development	9,550,062.43	56,223,942
512-G-005	BNDE	Economic Development	11,705,574.51	9,780,075
512-G-006	BNDE	Economic Development	6,821,569.67	3,635,737
512-G-012	SUDENE	Elementary Education	17,280,592.00	11,390,723
512-G-017	STATE OF GOIÁS	School Construction	1,300,000.00	1,301,098
512-G-030	CEMAT	Electric Power Expansion	7,700,000.00	2,785,379
512-G-031	DAER/RS	Highway Construction	10,000,000.00	4,954,258
512-G-035	BNDE	Economic Development	27,497,100.42	13,970,139
512-G-036	DNER	Highway Construction	14,100,000.00	7,621,622
512-G-037	SUDESTE	Rio-São Paulo Highway Construction	4,500,000.00	2,102,584
512-G-039	CAIXA ECONOMICA/MG	SE Highway Maintenance Equipment	5,000,000.00	2,702,703
512-G-040	DER/PR	Low Cost Housing Construction Loans	10,000,000.00	5,479,452
512-G-042	B:R	Parana Coffee Road Construction	8,000,000.00	3,556,200
512-G-043	DER/MG	Water Supply Fund	9,000,000.00	4,931,507
512-G-044	CEMIG	Highway Maintenance Equipment	4,000,000.00	1,936,360
512-G-045	COPEBO	Transmission Line Construction	2,000,000.00	1,095,890
512-G-046	DER/PARÁ	Synthetic Rubber Plant	1,000,000.00	547,945
512-G-043	COPEL	Highway Maintenance Equipment	4,000,000.00	1,778,100
512-G-049	MINISTRY OF NAVY	Power Expansion	300,000.00	136,364
512-G-052	BNH	Acquisition and Rehabilitation of Drydocks	5,000,000.00	1,280,549
512-G-056	MINISTRY OF HEALTH	Trade Union Housing	2,796,989.44	1,271,359
512-G-071	MOGLIANA	Malaria Project Vehicles	2,385,872.14	398,309**
		Mogiana Diversification Program	<u>Cr\$165,448,575.76</u>	<u>\$161,771,433</u>

\* At the official exchange rate from USDO when payments were made.

\*\* At the official exchange rate from USDO on the date (9/15/72) refund was made by Central Bank.

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B. U.S. Technical Assistance

BRAZIL

U.S. DOLLAR GRANTS \*NET OBLIGATIONS  
(\$000)

<u>FY</u>	<u>POWER</u>	<u>IND/ MINING</u>	<u>TRANS/ COMM.</u>	<u>HOUSING UR.DEV.</u>	<u>EDU.</u>	<u>HEALTH/ SANIT.</u>	<u>AGRI.</u>	<u>PRIVATE ENTERPRISE</u>	<u>LABOR</u>	<u>PUBLIC SAFETY</u>	<u>OTHER</u>	<u>ANNUAL TOTALS</u>
1962	12	405	261	6	3,164	2,395	1,230	51	-14	573	1,975	10,058
1963	60	655	1,849	85	2,583	4,489	8,824	133	138	1,268	3,316	23,400
1964	150	57	482	139	1,713	1,009	3,190	1,396	116	2,057	3,428	13,237
1965	118	-0-	254	408	2,152	277	1,058	1,146	736	653	5,584	12,306
1966	219	-0-	463	70	1,553	415	2,096	794	466	531	6,620	13,227
1967	105	330	268	187	1,881	415	3,140	1,119	227	638	4,404	14,714
1968	53	61	166	155	2,638	349	3,407	244	849	572	2,838	11,332
1969	29	-23	203	439	1,987	159	3,240	515	755	765	2,040	10,109
1970	82	-12	85	6	2,786	257	3,308	-20	1,025	556	3,765	11,678
1971	102	145	151	-18	2,558	104	2,957	28	429	391	3,900	10,747
1972	70	37	57	-41	3,069	8	1,902	-163	640	81	3,028	8,768
<u>TOTALS</u>	<u>1,000</u>	<u>1,655</u>	<u>4,239</u>	<u>1,436</u>	<u>26,084</u>	<u>10,377</u>	<u>36,472</u>	<u>5,243</u>	<u>5,367</u>	<u>7,005</u>	<u>40,898</u>	<u>139,656</u>

\* Data covers commitments for economic and technical assistance made by A.I.D. Commitments may be defined as development obligations of A.I.D. funds. All annual commitment data as well as the cumulative totals are on a "net" basis, that is, net obligations from funds appropriated for that fiscal year, plus or minus reobligations or deobligations of prior year funds. A minus figure indicates deobligations in excess of new obligations.

Brazil  
 EXPENDITURES  
 TECHNICAL ASSISTANCE PROJECTS  
 196 - 1983  
 (U.S. \$ 000)

Year	Agriculture	Industry and Mining	Transportatio	Labor	Health	Education	Public Safety & Administration	Community Dev. & Welfare	Private Enterprise	Other	Total
1960 <sup>1/</sup>	1,364	440	242	173	825	850	2,450	82	-	814	7,241
1961 <sup>1/</sup>	1,205	670	211	133	511	883	1,706	314	-	1,564	7,297
1962 <sup>1/</sup>	1,262	468	325	32	2,512	3,181	932	9	-	1,873	10,595
1963	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1964	1,556	127	763	50	636	733	1,040	40	-	1,833	6,778
1965	8,419 <sup>2/</sup>	(3,032) <sup>2/</sup>	486	112	1,301	7,233 <sup>2/</sup>	(3,324)	136	-	5,215	16,547
1966	6,062	142	811	424	1,181	2,381	972	222	0	5,945	18,140
1967	5,434	499	1,018	774	663	2,664	1,662	272	0	4,631	17,617
1968	5,845	209	1,025	786	4,308	2,869	2,124	218	1,018	2,239	20,641
1969	2,983	50	521	733	2,961	1,619	1,153	247	297	1,729	12,293
1970	3,691	75	434	846	2,004	2,579	1,809	187	261	2,414	14,300
1971	3,674	104	443	726	1,270	2,442	1,708	-14	213	2,896	13,462
1972	3,794	178	216	608	793	2,622	1,369	-36	-100	3,141	12,585
1973	2,184	98	165	395	2,313	2,509	408	-8	18	1,288	9,370
1974	3,268	306	24	1	2,106	2,774	169	0	-6	449	9,091
1975	2,570	887	37	6	1,546	3,175	337	0	13	237	8,808
1976	1,233	1,087	0	0	0	345	141	0	0	0	2,806
1977)											
thru)	No expenditures listed.										
1983)											
Total											

Source: AID/Washington.

<sup>1/</sup> Obligations - Loan and Grant

<sup>2/</sup> Indicates reclassification of projects by sector, title, number, and size.

BRAZIL  
TECHNICAL ASSISTANCE PROJECTS

AID DOLLAR FINANCED COSTS  
(Thousands of Dollars)

FIELD OF ACTIVITY PROJECT TITLE	DATES		TOTAL COSTS
	START	FINISH	
<u>AGRICULTURE AND NATURAL RESOURCES</u>			
Technical Assistance Support Activity	--	1953	1,044
Regional Agriculture	1954	1957	6
Agricultural Research & Extension - Northeast	1963	1965	83
Rural Extension Service Improvement	1963	1968	235
Rural Vocational Education & Training	1963	1972	540
Agricultural Research & Extension Inst. Dev.	1963	1975	8,532
Colonization & Resettlement - Northeast	1963	1965	27
Water Resources Northeast	1962	1965	95
Frontier Homestead Program	1963	1970	574
Topography Mapping	--	1970	1,873
Water Development & Irrigation	1963	1970	127
Meteorological Data Collection &	1965	1970	51
Migration & Resettlement	1963	1970	72
Food Distribution	1962	1966	52
Rural Rehabilitation & Reform	1964	1975	1,294
Fertilizer & Insecticide Demonstration	1963	1965	210
Land & Water Resources Group	1953	1965	2,132
Development of High Protein in Corn	1963	1974	415
Improved Price Support & Food	1963	1972	1,286
Agricultural Economics & Cooperatives	1953	1962	217
Expanded & Improved Agricultural Systems	1963	1971	1,111
Agricultural Products & Marketing	1963	1964	14
Establish Nationwide Market News	1964	1972	226
Development of Agriculture Cooperatives	1963	1973	2,019
Workshop-Womens Rural Life	1956	1958	9
Agricultural Advisory Services	1953	1964	601
Agricultural Servicio	1953	1965	2,653
Agricultural Technical Support	1970	1976	585
Natural Resources Planning & Engineering	1966	1974	1,117
Agricultural Education	1963	1978	20,243
Fish Products/Processing & Marketing	1964	1976	3,191
TOTAL:			<u>50,634</u>
<u>INDUSTRY AND MINING</u>			
Undist. Activity Cost	--	1961	243
Mining Resources Development	1948	1961	155
National Minerals Survey & Geological Training	1945	1970	4,791
Rural Community Electrification	1962	1965	36
Rural Electrification	1963	1971	130
Engineering & Construction	1955	1957	10
Productivity Center	1952	1956	186
School Construction-Engineering Supervision	1971	1972	18
Power Systems Improvement	1963	1970	804
TOTAL:			<u>6,373</u>
<u>TRANSPORTATION</u>			
Roads - Northeast	1962	1970	1,584
R R Shop & Maintenance Training	1956	1962	167
Meteorological Training	1962	1966	33
Air Navigation Aids & Traffic Con.	1955	1970	3,036
Aerophotography Training	1956	1962	53
Engineering Transportation	1956	1957	103
Highway Engineering & Training Advisory Service	1963	1970	2,213
TOTAL:			<u>7,189</u>

FIELD OF ACTIVITY PROJECT TITLE	DATES		TOTAL COSTS
	START	FINISH	
<u>LABOR</u>			
Trade Union Development (AIFLD)	1960	1974	4,127
Union to Union Leadership Exchange	1965	1974	821
Labor Min. Service Expansion & Improvement	1960	1974	1,304
Social Security Technical Training	1958	1960	4
Employment Service & Manpower	1962	1965	25
Manpower Planning & Analysis	1965	1974	235
TOTAL:			<u>6,516</u>
<u>HEALTH AND SANITATION</u>			
Technical Assistance Support Activity	--	1953	1,273
Community Water Supply	1960	1965	20
Community Water Supply - Northeast	1961	1965	108
Guanabara Water Supply	1963	1965	25
Sanitary Eng.	1942	1960	617
Urban Water & Sewer Systems	1961	1974	3,182
Pro. F & L Health Service	1943	1964	698
National Public Health Planning & Coordination	1965	1974	705
Training Health Personnel	1943	1964	599
Community Health - Northeast	1962	1966	397
Public Health Advisory Service	1960	1964	200
Public Health Methods	1960	1965	411
Occupational Health	1960	1964	107
Community Health - Northeast	1962	1965	57
Health Cooperation Service	1942	1960	2,458
Administrative Health & Safety Program	1943	1960	439
Technical Support-Health	1958	1967	14,115
TOTAL:			<u>25,411</u>
<u>EDUCATION</u>			
Technical Assistance Support Activity	--	1953	652
Improvement Textile Education	1952	1959	174
National Industrial Vocational Trng. Development	1966	1972	2,989
Industrial Vocational Education - Northeast	1963	1964	5
Industrial Education Cooperation Service	1946	1965	1,222
Elementary Education - NorthEast	1962	1966	197
Elementary Education Planning	1964	1972	918
Elementary Education Servicio	1956	1965	392
Teacher Education & Training	1966	1972	127
Secondary Education	1957	1962	192
Geology Education	1956	1967	792
Marine Engineering & Nav. Arc.	1957	1966	257
Survey Institution Tech. Aer	1957	1958	3
Engineering Education - University of Brazil	1962	1972	1,093
Adult Literacy Training	1965	1972	83
National Higher Education Planning & Reform	1959	1974	1,767
School Construction Facility Improvement	1956	1970	1,657
Social Science Research & Engineering	1955	1971	387
Development Science & Technical Research	1968	1972	255
Education Advisory Service	1946	1965	523
Scientific & Education Publications	1962	1976	1,088
Higher Education	1958	1979	15,380
University Administrative Improvement & Reform	1965	1973	1,328
Education Training & Planning	1962	1976	8,289
Education Technical Support	1970	1974	834
TOTAL:			<u>40,604</u>

FIELD OF ACTIVITY PROJECT TITLE	DATES		TOTAL COSTS
	START	FINISH	
<u>PUBLIC SAFETY AND PUBLIC ADMINISTRATION</u>			
Improvement Sao Paulo Public Administration	--	1958	12
Public Safety	1959	1974	8,299
Improvement Government Administrative PR	1952	1965	2,795
Bahia Institution of State Administration	1964-65	1967	78
Economic Development Planning	1962	1974	1,872
Regional Development Planning Sudene	1966	1974	598
Public Administration	1955-56	1970	5,455
Improvement Census Statistics Techniques	1958	1959	49
Project Management	1965	1969	12
Regional Centers for Administration & Training	1965	1980	6,053
TOTAL:			<u>25,223</u>
<u>COMMUNITY DEVELOPMENT/SOCIAL WELFARE</u>			
Community Service	1956	1959	219
Area Community Development	1952	1964	380
Community Development	1962	1965	20
Urban Community Self Help & Cooperation	1962	1972	356
Housing	1956	1960	64
Housing	1962	1965	8
Housing - Northeast	1962	1966	35
National Housing Bank	1964-66	1974	918
Self Help Housing	1965	1970	21
TOTAL:			<u>2,021</u>
<u>PRIVATE ENTERPRISE/PROMOTION</u>			
Capital Market Development	1964	1973	549
Regular Audiovisual Workshop	1957	1958	48
Industrial Development - Northeast	1963	1964	23
Intermediate Credit Institution Expansion	1966	1970	110
Central Bank Training	1964	1974	645
Ind. Engineering Surveys of Food & Fore.	1956	1970	163
Technical Assistance-Regional & State Ind. Org.	1963	1972	278
Sudene Ind. Program Investment Incentive	1966	1972	180
Productivity Imp. Basic Concep.	1961	1972	842
Stimulation of Community Org. for Ind. Dev.	1963	1972	2,524
Export Expansion & Production	1969	1973	15
TOTAL:			<u>5,377</u>
<u>OTHER GENERAL/MISCELLANEOUS</u>			
Audiovisual Centers	1956	1964	983
Peaceful Use Atomic Energy	1957	1964	66
Miscellaneous General Training	1952	1955	962
Tourism	1956	1959	31
Research & Industrial Surveys	1961	1963	35
Emergency Disaster Relief	1960	1961	286
Joint Committee	1950	1956	537
Gibbs & Mills, Inc.	1952	1956	449
Regional Economic Development Surveys	1961	1964	60
Resource Inventory - Northeast	1963	1964	1
Northeast Regional Development	1962	1964	38
Food for Peace	1963	1964	7
Economic & Social Research & Planning	1962	1967	48
Marketing Seminar	1962	1964	16
Partners of the Alliance	1966	1970	405
Credit Union Development	1966	1970	53
Training for Regional Development	1970	1975	431
Food for Peace Planning & Supervision	1963	1974	3,295
Special Development Act Alianca Miri	1971	1973	155
Food Fortification	1971	1976	477
International Narcotics Control	1973	1980	597
Technical Support	1951	1975	29,060
TOTAL:			<u>37,992</u>
TOTAL AMOUNT FUNDED ON A GRANT BASIS			190,138
TOTAL AMOUNT FUNDED ON A MIXED BASIS			17,202
COUNTRY TOTAL AMOUNT FUNDED			<u>207,340</u>

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C. Combined U.S. Capital and Technical Assistance

Brazil

EXPENDITURES  
TOTAL ASSISTANCE  
(Program and Project)

1965 - 1983

(U.S. \$ 000)

<u>Year</u>	<u>Project Assistance</u>	<u>Program Assistance</u>	<u>Total</u>
1965	92,901	70,500	287,901
1966	56,883	74,059	130,942
1967	81,374	132,298	213,672
1968	70,406	55,337	125,743
1969	54,126	72,620	126,746
1970	40,829	49,095	89,924
1971	45,281	37,249	82,530
1972	38,179	13,926	52,105
1973	32,358	3,607	35,965
1974	47,851	15,964	63,815
1975	44,736	10,520	55,256
1976	11,109	12,750	23,859
1977	15,894	19,938	35,832
1978	10,797	0	10,797

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Source: AID/Washington.

(U.S. FISCAL YEARS - MILLIONS OF DOLLARS)  
 U.S. OVERSEAS-LOANS AND GRANTS-OBLIGATIONS AND LOAN AUTHORIZATIONS  
 FY 1946-48 POST-WAR RELIEF PERIOD. FY 1949-52 MARSHALL PLAN PERIOD.

COUNTRY: BRAZIL

PROGRAM	1946	1947	1948	1949	1950	1951	1952
I. ECON. ASSIST. - TOTAL	17.2	1.3	1.4	0.3	0.8	1.2	2.6
LOANS	16.3	-	-	-	-	-	-
GRANTS	0.9	1.3	1.4	0.5	0.8	1.2	2.6
A. AID AND PREDECS.	-	-	-	-	-	-	2.6
LOANS	-	-	-	-	-	-	-
GRANTS	-	-	-	-	-	-	2.6
(SEC. SUPP. ASSIST.)	-	-	-	-	-	-	-
3. FOOD FOR PEACE	-	-	-	-	-	-	-
LOANS	-	-	-	-	-	-	-
GRANTS	-	-	-	-	-	-	-
TITLE I - TOTAL	-	-	-	-	-	-	-
REPAY. IN S-LOANS	-	-	-	-	-	-	-
PAY. IN FOR. CURR.	-	-	-	-	-	-	-
TITLE II - TOTAL	-	-	-	-	-	-	-
RELIEF. EC. DEVL. FP.	-	-	-	-	-	-	-
VOL. RELIEF AGENCY	-	-	-	-	-	-	-
C. OTHER ECON. ASSIST.	17.2	1.3	1.4	0.8	0.8	1.2	-
LOANS	16.3	-	-	-	-	-	-
GRANTS	0.9	1.3	1.4	0.8	0.8	1.2	-
CONTR. TO IFI	-	-	-	-	-	-	-
PEACE CORPS	-	-	-	-	-	-	-
NARCOTICS	-	-	-	-	-	-	-
OTHER	0.9	1.3	1.4	0.8	0.8	1.2	-
II. MIL. ASST. - TOTAL	-	-	-	-	-	-	26.9
LOANS	-	-	-	-	-	-	-
GRANTS	-	-	-	-	-	-	26.9
A. MAP GRANTS	-	-	-	-	-	-	26.9
B. CREDIT FINANCING	-	-	-	-	-	-	-
C. INTL. MIL. SO. FRNG.	-	-	-	-	-	-	-
D. TRAN-EXCESS STOCK	-	-	-	-	-	-	-
E. OTHER GRANTS	-	-	-	-	-	-	-
III. TOTAL ECON. & MIL.	17.2	1.3	1.4	0.8	0.8	1.2	29.5
LOANS	16.3	-	-	-	-	-	-
GRANTS	0.9	1.3	1.4	0.8	0.8	1.2	29.5
OTHER US LOANS	39.7	16.3	-	9.6	14.5	26.0	54.4
EARLY BANK LOANS	39.7	16.3	-	9.6	14.5	26.0	54.4
ALL OTHER	-	-	-	-	-	-	-

U.S. OVERSEAS-LOANS AND GRANTS-OBLIGATIONS AND LOAN AUTHORIZATIONS  
MUTUAL SECURITY ACT PERIOD  
(U.S. FISCAL YEARS - MILLIONS OF DOLLARS)

COUNTRY: BRAZIL

PROGRAM	1953	1954	1955	1956	1957	1958	1959	1960	1961
I. ECON. ASSIST. - TOTAL	18.2	2.6	5.8	39.7	121.3	9.1	11.9	13.4	32.2
LOANS	15.0	0.1	0.3	30.7	79.3	-	0.5	-	54.6
GRANTS	3.2	2.5	5.5	9.0	42.0	9.1	11.4	13.4	17.6
II. AID AND PREDECS.	3.2	2.5	3.0	3.6	4.5	5.5	3.9	11.6	7.5
LOANS	-	-	-	-	-	-	0.5	-	-
GRANTS	3.2	2.5	3.0	3.6	4.5	5.5	3.4	11.6	7.5
(SEC. SUPP. ASSIST.)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)
III. FOOD FOR PEACE	-	-	2.5	35.6	110.2	3.6	3.0	1.8	84.7
LOANS	-	-	-	30.2	72.7	-	-	-	54.6
GRANTS	-	-	2.5	5.4	37.5	3.6	3.0	1.8	30.1
IV. TITLE I - TOTAL	-	-	-	30.2	108.3	-	-	-	81.5
REPAY. IN 3-LOANS	-	-	-	-	-	-	-	-	-
PAY. IN FOR. CURR.	-	-	-	30.2	108.3	-	-	-	51.5
V. TITLE II - TOTAL	-	-	2.5	5.4	1.9	3.6	3.0	1.8	3.2
RELIEF EC. DEV. ACP	-	-	-	-	-	-	-	-	-
VOL. RELIEF AGENCY	-	-	2.5	5.4	1.9	3.6	3.0	1.8	3.2
C. OTHER ECON. ASSIST.	15.0	0.1	0.3	0.5	6.6	-	-	-	-
LOANS	15.0	0.1	0.3	0.5	6.6	-	-	-	-
GRANTS	-	-	-	-	-	-	-	-	-
COVTR. TO IPI	-	-	-	-	-	-	-	-	-
PEACE CORPS	-	-	-	-	-	-	-	-	-
NARCOTICS	-	-	-	-	-	-	-	-	-
OTHER	-	-	-	-	-	-	-	-	-
II. MIL. ASSIST. - TOTAL	64.1	11.5	7.7	8.5	26.1	6.8	21.9	33.3	26.9
LOANS	-	-	-	-	-	-	-	-	-
GRANTS	64.1	11.5	7.7	8.5	26.1	6.8	21.9	33.3	26.9
A. MAP GRANTS	11.3	6.6	5.4	7.4	13.5	3.9	11.8	22.2	24.3
B. CREDIT FINANCING	-	-	-	-	-	-	-	-	-
C. INTL. MIL. ED. TRNG.	-	0.1	0.3	0.5	0.5	0.2	1.0	0.5	1.3
D. TRAN. ACCESS STOCK	52.8	5.1	2.1	0.6	-	2.7	0.6	2.4	1.2
E. OTHER GRANTS	-	-	-	-	10.1	-	9.5	8.2	-
III. TOTAL ECON. & MIL.	92.3	14.1	13.5	48.2	147.4	15.9	33.9	66.7	119.0
LOANS	13.9	0.1	0.3	30.7	79.3	-	0.5	-	54.6
GRANTS	67.3	14.0	13.2	17.5	68.1	15.9	33.3	46.7	54.4
IV. OTHER US LOANS	363.0	-	49.3	56.0	193.2	17.5	122.2	6.3	133.3
IN BANK LOANS	363.0	-	49.8	56.0	193.2	17.5	122.2	6.3	133.3
ALL OTHER	-	-	-	-	-	-	-	-	-

U.S. OVERSEAS-LOANS AND GRANTS-STATISTICS AND LOAN AUTHORIZATIONS  
(U.S. FISCAL YEARS - MILLIONS OF DOLLARS)  
FOREIGN ASSISTANCE ACT PERIOD

COUNTRY: ISRAEL

PROGRAM	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
ECON. ASSIST.-TOTAL	205.6	141.3	336.9	270.8	329.0	240.0	240.7	29.2	154.0	117.6	21.0	51.9
LOANS	154.1	92.1	254.5	228.9	253.4	199.0	243.7	3.1	95.0	90.3	2.1	33.3
GRANTS	51.5	49.2	32.1	43.9	70.6	41.0	37.0	26.1	59.0	26.8	18.9	20.5
ARMED AND PREDECESSOR	65.1	66.3	179.5	234.9	243.7	214.9	193.8	12.6	68.0	79.4	12.1	40.6
LOANS	74.5	62.9	165.4	220.2	229.3	199.0	130.9	6	75.0	67.3	2.1	33.2
GRANTS	10.6	23.6	14.1	14.7	14.4	15.9	12.9	12.4	13.0	11.9	10.0	7.4
(SEC. SUPP. ASSIST.)	-)	25.3)	50.0)	-)	-)	-)	-)	-)	-)	-)	-)	-)
FOR JOG FOR PEACE	72.6	47.9	150.9	24.6	79.1	21.6	82.9	10.2	62.4	35.1	5.7	9.6
LOANS	32.6	23.9	66.9	-	29.1	-	62.7	-	19.9	23.3	-	-
GRANTS	40.0	24.0	84.0	24.6	50.0	21.6	20.2	10.2	42.5	11.8	5.7	9.6
TITLE I-TOTAL	64.1	32.0	115.4	-	29.1	-	62.7	-	19.9	23.3	-	-
PAY. IN LOANS	-	-	-	-	29.1	-	62.7	-	19.9	23.3	-	-
PAY. IN FOR. CURR.	44.1	32.0	115.4	-	-	-	-	-	-	-	-	-
TITLE II-TOTAL	22.5	15.9	35.5	24.6	50.0	21.6	20.2	10.2	42.5	11.6	5.7	9.6
RELIEF, EC. DEV. & FP.	21.7	0.3	9.6	6.3	33.5	9.3	7.7	2.4	35.0	3.3	-	6.3
VEL. RELIEF AGENCY	6.8	15.6	25.9	18.3	16.5	12.3	10.5	7.8	7.5	8.0	5.7	6.7
GENERAL ECON. ASSIST.	47.9	6.9	6.5	11.3	6.2	3.5	4.0	6.6	3.6	3.1	3.2	3.0
LOANS	47.0	5.3	2.5	6.7	-	-	0.1	3.1	0.1	-	-	0.1
GRANTS	0.9	1.6	4.0	4.6	6.2	3.5	3.9	3.5	3.5	3.1	3.2	3.5
CONTR. TO IFT.	-	-	-	-	-	-	-	-	-	-	-	-
PEACE CORPS.	0.9	1.6	4.0	4.6	6.2	3.5	3.9	3.5	3.5	3.1	2.9	2.6
NARCOTICS	-	-	-	-	-	-	-	-	-	-	-	-
OTHER	-	-	-	-	-	-	-	-	-	-	0.3	0.9
TITLE III-TOTAL	39.4	8.2	34.9	13.5	33.8	33.5	36.3	0.8	0.6	12.0	20.7	17.5
LOANS	-	-	23.4	-	11.6	18.4	18.5	-	-	9.4	20.0	15.0
GRANTS	39.4	8.2	11.5	13.5	22.2	15.1	17.8	0.8	0.6	2.6	0.7	2.6
ADDP GRANTS	19.0	3.9	9.6	10.4	16.1	11.2	1.7	-	-	-	-	-
CREDIT FINANCING	-	-	23.4	-	11.6	13.4	13.5	-	-	7.6	20.0	15.0
MULTI-ED. FNS.	1.9	0.7	1.0	0.7	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.7
TRAIN. ACCESS STOCK	1.5	3.6	1.2	2.4	5.1	1.5	0.3	-	-	-	-	-
OTHER GRANTS	17.1	-	-	-	-	1.5	14.9	-	-	1.9	-	1.9
TITLE IV-TOTAL ECON. & MIL.	243.0	167.5	371.8	284.3	362.8	273.5	317.0	30.0	154.6	125.5	41.7	71.4
LOANS	154.1	92.1	278.2	228.9	270.3	217.4	242.2	3.1	95.0	100.2	22.1	49.3
GRANTS	90.9	57.4	33.6	57.4	92.3	56.1	54.3	26.9	59.6	27.4	19.6	23.1
UNDER US LOANS	-	-	-	6.0	16.9	30.0	65.8	27.9	63.2	75.0	301.3	165.7
IN BANK LOANS	-	-	-	6.0	16.9	30.0	50.8	27.9	63.2	75.0	299.4	142.3
OTHER	-	-	-	-	-	-	15.8	-	-	-	1.5	3.6

(U.S. FISCAL YEARS - MILLIONS OF DOLLARS)  
U.S. OVERSEAS-LOANS AND GRANTS-OBLIGATIONS AND LOAN AUTHORIZATIONS  
FOREIGN ASSISTANCE ACT PERIOD

COUNTRY: BRAZIL

PROGRAM	1974	1975	1976	TO	1977	1978	1979	1980	1981	1982	1983
I. ECON. ASSIST. - TOTAL	17.2	14.7	4.0	2.0	4.2	2.0	2.1	2.3	1.1	0.7	0.3
LOANS	1.0	1.0	-	-	-	-	-	-	-	0.1	-
GRANTS	16.2	14.7	4.0	2.0	4.2	2.0	2.1	2.3	1.1	0.6	0.3
II. AID AND PROGRES.	5.0	3.1	0.9	0.9	0.5	-	-	-	-	-	-
LOANS	1.0	1.0	-	-	-	-	-	-	-	-	-
GRANTS	4.0	3.1	0.9	0.9	0.5	-	-	-	-	-	-
(SEC. SUPP. ASSIST.)	-	-	-	-	-	-	-	-	-	-	-
III. FOOD FOR PEACE	6.2	3.4	0.7	1.5	1.3	0.1	0.6	1.4	0.6	0.3	0.1
LOANS	-	-	-	-	-	-	-	-	-	-	-
GRANTS	6.2	3.4	0.7	1.5	1.3	0.1	0.6	1.4	0.6	0.3	0.1
IV. TITLE II - TOTAL	-	-	-	-	-	-	-	-	-	-	-
REPAY. IN S-LOANS	-	-	-	-	-	-	-	-	-	-	-
PAY. IN FOR. CURR.	-	-	-	-	-	-	-	-	-	-	-
TITLE II - TOTAL	6.2	3.4	0.7	1.5	1.3	0.1	0.6	1.4	0.6	0.3	0.1
V. RELIEF-EC. DEV. APP.	4.1	4.3	0.6	1.5	1.3	0.1	0.6	1.4	0.6	0.3	0.1
VOL. RELIEF AGENCY	2.1	4.3	0.1	-	-	-	-	-	-	-	-
VI. OTHER ECON. ASSIST.	6.0	3.2	2.4	0.5	2.5	2.0	1.5	1.0	0.5	0.4	0.3
LOANS	-	-	-	-	-	-	-	-	-	-	-
GRANTS	6.0	3.2	2.4	0.5	2.5	2.0	1.5	1.0	0.5	0.4	0.3
VII. COVER. TO IFI	-	-	-	-	-	-	-	-	-	-	-
VIII. PEACE CORPS	4.2	2.7	1.7	0.5	2.1	1.9	1.5	1.0	0.3	-	-
NARCOTICS	0.2	0.3	0.2	0.4	0.3	-	-	-	-	-	-
OTHER	1.6	0.3	0.5	-	0.1	-	-	-	0.2	0.3	0.3
IX. MIL. ASSIST. - TOTAL	52.5	63.3	44.7	0.1	0.1	-	-	-	-	-	-
LOANS	51.7	60.0	44.0	-	-	-	-	-	-	-	-
GRANTS	0.8	3.3	0.7	0.1	0.1	-	-	-	-	-	-
X. MAP GRANTS	-	-	-	0.1	-	-	-	-	-	-	-
XI. CREDIT FINANCING	51.7	60.0	44.0	-	-	-	-	-	-	-	-
L. INTL. MIL. ED. TRNG.	0.8	0.8	0.7	-	0.1	-	-	-	-	-	-
D. TRAN-EXCESS STOCK	-	-	-	-	-	-	-	-	-	-	-
E. OTHER GRANTS	-	4.5	-	-	-	-	-	-	-	-	-
XII. TOTAL ECON. & MIL.	69.7	80.0	48.7	2.1	4.3	2.0	2.1	2.3	1.1	0.7	0.3
LOANS	52.7	60.0	44.0	-	-	-	-	-	-	0.1	-
GRANTS	17.0	20.0	4.7	2.1	4.3	2.0	2.1	2.3	1.1	0.6	0.3
XIII. OTHER US LOANS	326.7	257.1	104.5	12.8	47.3	104.7	260.0	99.2	115.9	91.0	30.3
BY BANK LOANS	325.7	256.5	104.1	12.8	47.3	104.7	212.6	63.3	115.7	91.0	29.3
ALL OTHERS	1.0	0.6	0.4	-	-	-	47.3	30.5	-	-	1.0

TO - TRANSITIONAL QUARTER \* LESS THAN 150,000.

U.S. FOREIGN ASSISTANCE - OBLIGATIONS AND LOAN AUTHORIZATIONS  
(Millions of Dollars)

PROGRAM	U.S. FISCAL YEARS												TOTAL
	1946-48	1949-52	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	
<b>ECONOMIC - TOTAL</b>	73.9	112.0	301.2	4.5	57.3	95.7	323.9	27.0	134.1	20.5	303.9	202.5	1,176.8
GRANTS	3.6	5.4	3.2	2.5	6.5	9.0	60.3	9.4	11.4	11.0	24.2	15.0	195.4
LOANS	70.3	106.6	378.0	2.0	50.8	86.7	263.6	17.6	122.7	6.5	279.7	187.5	1,581.4
<b>AGENCY FOR INTERNATIONAL DEVELOPMENT - TOTAL</b>	-	2.6	3.2	2.5	1.0	3.6	4.0	5.0	8.2	11.9	7.0	14.5	138.0
Grants	-	2.6	3.2	2.5	1.0	3.6	4.0	5.0	8.2	11.9	7.0	14.5	138.0
Loans	-	-	-	-	-	-	-	-	-	-	-	-	63.3
<b>TECHNICAL COOPERATION/DEVELOPMENT GRANTS</b>	-	-	-	-	-	-	-	-	-	-	-	-	76.7
<b>DEVELOPMENT LOANS</b>	-	-	-	-	-	-	-	-	-	-	-	-	60.2
<b>OTHER A.I.D.</b>	-	-	-	-	1.5	-	-	-	0.2	0.7	-	-	3.1
<b>SOCIAL PROGRESS TRUST FUND</b>	-	-	-	-	-	-	-	-	-	-	-	-	47.0
<b>LOAN FOR PEACE (PL 480) - TOTAL</b>	-	-	-	-	2.5	35.6	119.0	3.6	3.0	1.0	92.0	70.1	320.4
<b>TITLE I - PLANNED FOR GRANTS AND LOANS</b>	-	-	-	-	-	30.2	117.9	-	-	-	88.0	66.9	203.0
1041 - Grants for Common Defense	-	-	-	-	-	-	-	-	-	-	-	-	-
1042 - Grants from Triangular Transactions	-	-	-	-	-	-	-	-	-	-	-	-	-
1043 - Grants for Economic Development	-	-	-	-	-	-	58.4	-	-	-	14.0	11.7	80.1
1044 - Loans to Private Industry	-	-	-	-	-	30.2	63.5	-	-	-	74.8	35.2	203.7
1045 - Loans to Governments	-	-	-	-	-	(39.7)	(138.7)	-	-	-	(104.5)	(58.6)	(341.5)
(Total Sales Agreements)	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>TITLE II - EMERGENCY RELIEF</b>	-	-	-	-	2.5	5.1	1.9	3.6	3.0	1.0	3.2	6.8	16.4
<b>TITLE III - VOLUNTARY RELIEF AGENCIES</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>TITLE IV - DOLLAR CREDIT SALES</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>EXPORT-IMPORT BUREAU LONG-TERM LOANS</b>	58.0	106.6	363.0	1.9	50.5	56.0	193.5	17.6	122.2	6.8	208.9	-	1,177.0
<b>OTHER U.S. ECONOMIC PROGRAMS</b>	15.9	2.8	15.0	0.1	0.3	0.5	6.6	-	-	-	-	-	46.4
<b>LITRARY - TOTAL</b>	-	-	3.0	17.6	12.7	7.7	18.4	18.2	20.2	26.4	23.9	42.1	219.2
GRANTS	-	-	3.0	17.6	12.7	7.7	18.4	18.2	20.2	26.4	23.9	42.1	219.2
LOANS	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MILITARY ASSISTANCE PROGRAM - MAP - (Exp. to App.)</b>	-	-	3.0	17.6	12.7	7.7	18.4	18.2	20.2	26.4	23.9	42.1	219.2
(Additional Grants from Excess Stocks)	-	-	(52.8)	(5.0)	(2.2)	(0.6)	(0.1)	(2.8)	(0.7)	(2.3)	(1.3)	(0.8)	(12.2)
<b>OTHER MILITARY ASSISTANCE</b>	-	-	-	-	-	-	10.1	-	0.5	8.2	-	-	19.6
<b>TOTAL ECONOMIC AND MILITARY</b>	73.9	112.0	304.2	22.1	70.0	103.4	342.2	45.2	151.3	46.9	327.8	244.6	1,225.0
<b>FOREIGN ASSISTANCE ACT PROGRAM</b>	-	2.6	6.2	20.1	16.7	13.3	12.3	24.0	20.6	30.1	30.9	103.8	306.6
<b>OTHER ASSISTANCE</b>	73.9	109.4	378.0	2.0	53.3	92.1	330.0	21.2	133.7	16.8	296.9	140.8	1,618.4

FOREIGN ASSISTANCE ACT PROGRAM EXPENDITURES

PROGRAM	1946-48	1949-52	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	TOTAL
<b>FOREIGN ASSISTANCE ACT EXPENDITURES - TOTAL</b>	-	1.0	6.0	19.2	14.8	10.7	12.7	22.6	18.7	2.7	35.7	101.1	265.2
ECONOMIC	-	1.0	3.0	1.7	2.1	3.0	4.4	4.4	7.0	7.5	6.0	01.8	124.6
MILITARY	-	-	3.0	17.6	12.7	7.7	8.3	18.2	11.7	10.2	23.9	19.3	140.6

1962: \$100 million; 1961: \$100 million; 1960: \$100 million; 1959: \$100 million; 1958: \$100 million; 1957: \$100 million; 1956: \$100 million; 1955: \$100 million; 1954: \$100 million; 1953: \$100 million; 1952: \$100 million; 1951: \$100 million; 1950: \$100 million; 1949: \$100 million; 1948: \$100 million; 1947: \$100 million; 1946: \$100 million.

(U.S. Fiscal Years - Millions of Dollars)

PROGRAM	U.S. OVERSEAS LOANS AND GRANTS - NET OBLIGATIONS AND LOAN AUTHORIZATIONS										TOTAL 1946-1965	REPAYMENTS AND INTEREST 1946-1965	TOTAL LESS REPAYMENTS AND INTEREST	
	FOREIGN ASSISTANCE ACT PERIOD													
	POST-WAR RELIEF PERIODS 1946-1949	MARSHALL PLAN PERIOD 1949-1952	MUTUAL SECURITY ACT PERIOD 1953-1961	1942	1943	1944	1945	1946	1947	1948				1949
<b>A. I. D. AND PREDECESSOR AGENCIES - TOTAL</b>	-	-	50.9	84.5	86.3	178.6	230.7	242.2	213.7	187.7	-11.7	1,265.8	22.1	1,243.7
Loans	-	2.6	0.2	74.5	67.9	165.4	218.4	229.1	199.0	176.3	-21.8	1,104.2	22.1	1,082.1
Grants	-	-	50.7	10.0	23.4	13.2	12.4	13.2	14.7	11.3	10.1	161.7	-	161.7
<b>FOOD FOR PEACE - TOTAL</b>	-	-	241.4	72.9	48.6	152.8	25.0	79.4	21.6	85.0	10.2	737.0	18.5	718.5
Title I - Total	-	-	220.0	44.0	22.6	115.9	-	29.1	-	64.8	-	506.4	18.5	487.9
FAVORABLE IN U.S. INTERESTS - (LOANS)	-	-	220.0	44.0	32.6	115.9	-	29.1	-	64.8	-	506.4	6.3	499.9
PAYABLE IN FOREIGN CURRENCY - Planned for Country Use (Total Sales Agreements, including U.S. Uses)	-	-	(262.8)	(55.0)	(40.7)	(144.9)	(-)	(-)	(-)	(-)	(-)	(503.4)	12.2	491.2
Planned for Country Use	-	-	220.0	44.0	32.6	115.9	-	-	-	-	-	412.5	(-)	412.5
Economic Development Loans	-	-	137.5	32.6	24.1	86.9	-	-	-	-	-	301.1	12.2	288.9
Economic Development Grants	-	-	62.5	11.5	8.5	29.0	-	-	-	-	-	111.4	-	111.4
Cooperatives Loans	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Grants	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Assistance from Other Country Agreements	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Title II - Total	-	-	21.4	28.9	16.0	36.9	25.0	50.2	21.6	20.2	10.2	230.6	-	230.6
EMERGENCY RELIEF, LOW-INT. & WORLD FOOD PROGRAMS	-	-	21.4	22.1	0.4	11.0	6.7	33.8	9.3	9.7	2.1	95.1	-	95.1
VOLUNTARY RELIEF AGENCIES	-	-	-	6.8	15.6	25.9	18.3	16.5	12.3	10.5	8.2	135.5	-	135.5
<b>EXPORT-IMPORT BANK LONG-TERM LOANS</b>	54.0	106.7	296.8	-	-	-	6.0	16.9	20.0	50.8	29.1	1,290.3	1,101.7	188.6
OTHER U.S. ECONOMIC PROGRAMS	19.9	2.8	22.5	47.9	7.4	6.5	11.1	6.2	3.5	3.9	3.5	135.5	57.0	78.5
COMMITTEES TO INTERNATIONAL LENDING ORGANIZATIONS	-	-	-	0.9	1.6	4.0	4.6	6.2	3.5	3.9	3.5	28.2	-	28.2
PLACE CORP.	-	-	-	47.0	5.8	2.5	6.7	-	-	-	-	62.1	10.7	51.4
SOCIAL PROGRESS TRUST FUND	19.9	2.8	22.5	-	-	-	-	-	-	-	-	45.2	46.3	-1.1
OTHER	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL ECONOMIC</b>	73.9	112.1	1,211.6	205.2	142.3	337.9	233.0	344.8	268.8	327.4	31.2	3,426.6	1,199.2	2,227.2
Loans	70.3	106.7	1,177.0	154.1	92.8	254.8	231.1	275.1	229.0	291.9	7.3	2,890.4	1,199.3	1,691.1
Grants	3.6	5.4	134.6	51.3	49.5	83.1	42.0	69.7	39.8	35.4	23.9	536.3	-	536.3
<b>MILITARY ASSISTANCE PROGRAM - (Chg. to FAR App. 15)</b>	-	-	121.2	19.2	10.0	9.1	14.1	23.6	16.8	26.8	19.0	293.6	18.7	274.9
Credits Assistance	-	-	-	-	-	2.9	2.9	13.1	3.4	14.2	12.4	72.7	18.7	54.0
Grants	-	-	121.2	19.2	10.0	9.1	11.4	9.5	13.4	12.6	6.6	220.9	-	220.9
(Additional Grants from Excess Stocks)	(-)	(-)	(22.5)	(0.3)	(1.0)	(0.1)	(0.7)	(0.6)	(1.2)	(1.5)	(-)	(28.1)	(-)	(28.1)
OTHER MILITARY ASSISTANCE GRANTS	-	-	26.8	22.8	-	7.5	-	-	-	-	-	57.1	-	57.1
<b>EXPORT-IMPORT BANK MILITARY LOANS</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL MILITARY	-	-	148.1	42.1	10.0	16.6	14.1	32.6	16.8	26.8	19.0	350.7	18.7	332.0
<b>TOTAL ECONOMIC AND MILITARY</b>	73.9	112.1	1,459.7	247.4	152.3	354.5	247.1	367.4	285.6	354.2	50.2	3,779.3	1,218.0	2,561.3
Loans	70.3	106.7	1,177.0	154.1	92.8	254.8	231.0	288.2	232.4	306.1	19.7	2,963.1	1,218.0	1,745.1
Grants	3.6	5.4	282.7	93.4	59.5	99.7	53.4	79.2	53.2	48.0	30.5	816.3	-	816.3

Includes \$22.5 million Surplus Property Credits and \$16.4 million Defense Mobilization Development.  
 Excludes refunding of \$34.7 million in FY 1961; \$65.6 million in FY 1964; and \$6.6 million in FY 1965.  
 Annual data represent deliveries; total through 1965 is the cumulative program.

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D. Non-U.S. Assistance

BRAZIL  
TOTAL MULTILATERAL ASSISTANCE FLOWS (NET)  
1960 - 1982  
(US\$ 000's)

Year	EEC	IBRD	IDB	IFC	IDA	UN	Total	OPEC Countries	Total	
1960	-	6.1	-15.5	4.0	-	-0.7	-6.1	-	-6.1	
1961	-	17.4	-24.1	-	-	-0.2	-7.0	-	-7.0	
1962	-	7.9	-13.4	-0.2	-	1.4	-4.3	-	-4.3	
1963	-	0.4	12.0	-0.7	-15.2	2.1	-1.4	-	-1.4	
1964	-	-6.5	13.5	-0.8	-3.6	2.4	5.0	-	5.0	
1965	-	-13.6	1.5	-1.8	-	2.2	-11.6	-	-11.6	
1966	-	-16.1	25.5	2.1	-	2.8	14.2	-	14.2	
1967	-	-6.6	54.7	7.9	-	2.8	58.7	-	58.7	
1968		Not Available						N/A		N/A
1969	-	33.2	85.6	3.0	-	6.2	128.0	-	128.0	
1970	-	59.4	80.0	3.8	-	6.3	149.5	-	149.5	
1971	-	89.3	65.8	10.0	-	6.9	172.0	-	172.0	
1972	0.1	137.0	101.2	14.6	-	7.4	260.3	-	260.3	
1973	-	162.3	83.8	16.4	-	9.3	271.8	-	271.8	
1974	-	224.5	147.1	48.9	-	13.0	433.5	-	433.5	
1975	0.3	221.5	117.8	49.0	-	15.6	404.2	-	404.2	
1976	-	124.4	94.0	29.3	-	13.0	260.8	-	260.8	
1977	-	195.9	91.7	8.9	-	10.5	307.0	-	307.0	
1978	0.2	188.5	90.6	-9.3	-	11.6	281.5	2.9	284.4	
1979	0.2	225.1	153.3	-15.3	-	18.7	381.9	15.4	397.3	
1980	-	242.2	130.2	70.7	-	19.4	462.5	5.6	468.1	
1981	-	249.7	140.3	97.0	-	19.1	506.1	1.6	507.7	
1982	-	405.0	212.1	116.5	-	16.2	749.8	-	749.8	

Source: OECD.

BRAZIL: OVERSEAS DEVELOPMENT ASSISTANCE INFLOWS, 1960-82  
(millions US \$)

	U.S.	Other OECD <sup>1/</sup> Countries	IBRD	IDB	IFC	UN	Other	Total
1960	11.1		6.1	-15.5	4.0	-0.7	-	5.0
1961	206.0	28.4	17.4	-24.1	-	-0.2	-	227.5
1962	113.0	35.2	7.9	-13.4	-0.2	1.4	-	143.9
1963	100.0	72.6	0.4	12.0	-0.7	2.1	-15.2 <sup>2/</sup>	171.2
1964	93.0	45.2	-6.5	13.5	-0.8	2.4	-3.6 <sup>2/</sup>	143.2
1965	134.4	112.1	-13.6	1.5	-1.8	2.2	-	234.8
1966	286.0	49.7	-16.1	25.5	2.1	2.8	-	350.0
1967	200.0	21.6	-6.6	54.7	7.9	2.8	-	280.4
1968	-	n.a.	n.a.	-	-	-	-	-
1969	146.0	24.5	33.2	85.6	3.0	6.2	-	298.5
1970	125.0	37.4	59.4	80.0	3.8	6.3	-	311.9
1971	113.0	36.1	89.3	65.8	10.0	6.9	-	321.1
1972	59.0	41.8	137.0	101.2	14.6	7.4	0.1	361.1
1973	55.0	29.5	162.3	83.8	16.4	9.3	-	356.3
1974	80.0	58.8	224.5	147.1	48.9	13.0	-	572.3
1975	61.0	81.0	221.5	117.8	49.0	15.6	0.3	546.2
1976	51.0	58.9	124.4	94.0	29.3	13.0	-	370.6
1977	22.0	76.2	195.9	91.7	8.9	10.5	-	405.2
1978	12.0	113.8	188.5	90.6	-9.3	11.6	3.1 <sup>3/</sup>	407.2
1979	6.0	98.4	225.1	153.3	-15.3	18.7	15.6 <sup>3/</sup>	501.8
1980	2.0	110.5	242.2	130.2	70.7	19.4	5.6 <sup>3/</sup>	580.6
1981	1.0	259.7	249.7	140.3	97.0	19.1	1.6 <sup>3/</sup>	768.4
1982	1.0	215.1	405.0	212.1	116.5	16.2	-	966.3

Source: OECD.

<sup>1/</sup> Principally Germany, 1961-82; Japan, 1963-65 and 1975-82; and France, 1974-82.

<sup>2/</sup> IDA

<sup>3/</sup> Almost all from OPEC countries.

BRAZIL  
TOTAL OVERSEAS DEVELOPMENT ASSISTANCE FLOWS FROM OECD COUNTRIES  
1960 - 1982  
(In US\$ 1000's)

Total ODA Gross	Austria	Belgium	Canada	Denmark	Finland	France	Germany	Italy	Japan	Netherlands	Norway	Sweden	Switzerland	U.K.	U.S.	TOTAL
1960 Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.0	11.1
Loans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.0	11.1
1961 Total	-	-	-	-	-	-	15.6	11.1	-	-	-	-	-	1.7	206.0	234.4
Loans	-	-	-	-	-	-	15.5	11.1	-	-	-	-	-	1.7	197.0	225.3
Grants	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	9.0	9.1
1962 Total	-	2.0	2.2	-	-	3.6	10.6	11.1	0.3	-	-	-	-	5.3	113.0	148.2
Loans	-	-	2.2	-	-	3.6	10.5	11.1	-	-	-	-	-	5.3	87.0	119.8
Grants	-	2.0	-	-	-	-	0.1	-	0.3	-	-	-	-	-	26.0	28.4
1963 Total	-	-	1.1	-	-	17.3	20.4	16.2	17.7	-	-	-	0.1	-	100.0	172.6
Loans	-	-	1.1	-	-	17.3	18.2	16.2	17.6	-	-	-	0.1	-	64.0	134.3
Grants	-	-	-	-	-	-	2.2	-	0.1	-	-	-	0.1	-	36.0	38.3
1964 Total	-	-	4.3	-	-	6.4	21.2	10.2	0.1	-	-	-	0.6	2.3	93.0	138.2
Loans	-	-	4.3	-	-	6.4	18.4	10.2	-	-	-	-	0.6	2.3	56.0	98.1
Grants	-	-	-	-	-	-	2.8	-	0.1	-	-	-	-	-	37.0	40.1
1965 Total	-	-	2.0	-	-	15.8	50.6	7.8	36.8	1.1	-	-	1.0	3.1	134.4	246.5
Loans	-	-	2.0	-	-	15.8	45.9	7.7	30.6	1.1	-	-	0.9	3.0	93.9	200.9
Grants	-	-	-	-	-	-	4.7	0.1	0.2	-	-	-	0.1	0.1	40.5	45.6
1966 Total	0.1	0.3	-	-	-	1.2	8.9	18.6	15.6	1.2	-	-	0.5	3.4	286.0	335.7
Loans	-	-	-	-	-	1.2	4.2	18.2	15.3	1.2	-	-	0.4	3.2	239.0	282.7
Grants	0.1	0.3	-	-	-	-	4.7	0.4	0.3	-	-	-	0.1	0.2	47.0	53.0
1967 Total	0.5	0.3	-	0.4	-	-	13.8	5.6	0.3	0.6	-	-	0.1	0.1	200.0	221.6
Loans	0.5	-	-	0.4	-	-	8.2	5.6	-	0.6	-	-	-	-	145.0	160.2
Grants	-	0.3	-	-	-	-	5.6	-	0.3	-	-	-	0.1	0.1	55.0	61.4
1968 Total	N/A															
Loans	N/A															
Grants	N/A															
1969 Total	-	0.4	0.8	2.5	-	-	19.6	0.1	0.6	-	0.1	-	0.1	0.3	146.0	170.5
Loans	-	-	0.8	2.5	-	-	11.9	-	-	-	-	-	-	-	99.0	114.2
Grants	-	0.3	-	-	-	-	7.7	0.1	0.6	-	0.1	-	0.1	0.3	47.0	56.3
1970 Total	0.6	0.3	0.7	0.1	-	3.0	28.6	0.1	0.5	0.8	-	1.5	0.7	0.5	125.0	152.4
Loans	0.6	-	0.7	-	-	3.0	19.4	-	-	-	-	1.5	-	-	85.0	110.2
Grants	-	0.3	-	-	-	-	9.2	0.1	0.5	0.8	-	-	0.7	0.5	40.0	52.1
1971 Total	-	0.3	2.4	-	-	1.3	29.1	0.1	0.6	0.5	-	1.0	0.2	0.6	113.0	149.1
Loans	-	-	2.2	-	-	1.3	16.0	-	-	-	-	1.0	-	-	77.0	97.5
Grants	-	0.3	0.2	-	-	-	13.1	0.1	0.6	0.5	-	-	0.2	0.6	36.0	51.6
1972 Total	-	0.3	2.7	-	-	7.8	36.4	0.4	0.9	1.1	-	1.0	0.4	0.8	59.0	110.8
Loans	-	-	2.6	-	-	7.8	23.7	-	-	-	-	1.0	-	-	35.0	70.1
Grants	-	0.3	-	-	-	-	12.6	0.4	0.9	1.1	-	-	0.4	0.8	24.0	40.5
1973 Total	-	0.6	1.8	0.1	-	-	21.5	0.6	1.5	1.6	0.1	0.2	0.3	1.2	55.0	84.5
Loans	-	-	1.7	-	-	-	7.7	-	-	0.2	-	-	-	-	36.0	45.6
Grants	-	0.6	0.1	0.1	-	-	13.8	0.6	1.5	1.4	0.1	0.2	0.3	1.2	19.0	38.9

BRAZIL  
TOTAL OVERSEAS DEVELOPMENT ASSISTANCE FLOWS FROM OECD COUNTRIES  
1960 - 1982  
(in US\$ 1000's)

Total ODA Gross	Austria	Belgium	Canada	Denmark	Finland	France	Germany	Italy	Japan	Netherlands	Norway	Sweden	Switzerland	U.K.	U.S.	TOTAL
1974 Total	-	0.6	1.1	-	0.1	19.7	24.8	0.3	5.2	1.9	0.1	0.1	0.6	4.3	80.0	138.8
Loans	-	-	0.6	-	-	19.7	10.6	-	2.9	-	-	-	-	3.0	67.4	103.8
Grants	-	0.6	0.5	-	0.1	-	14.2	0.3	2.3	1.9	0.1	0.1	0.6	1.4	13.0	35.1
1975 Total	0.3	0.8	2.3	-	-	14.8	29.8	0.2	23.1	2.0	0.1	-	0.2	7.4	61.0	142.0
Loans	0.2	-	1.2	-	-	14.8	15.0	-	19.8	-	-	-	-	5.9	50.0	106.9
Grants	0.1	0.8	1.0	-	-	-	14.8	0.2	3.2	2.0	0.1	-	0.2	1.5	11.0	34.9
1976 Total	0.2	0.8	3.7	0.1	-	1.4	25.2	0.6	18.9	3.7	-	-	0.3	4.1	51.0	109.9
Loans	-	-	1.9	-	-	1.4	10.2	-	14.7	1.7	-	-	-	2.8	46.0	78.9
Grants	0.2	0.8	1.8	0.1	-	-	15.0	0.6	4.2	1.9	-	-	0.3	1.3	5.0	31.1
1977 Total	1.0	1.1	1.5	-	-	2.3	34.9	1.3	28.6	3.0	-	-	0.5	2.1	22.0	98.2
Loans	0.5	-	0.3	-	-	2.3	16.0	-	23.1	0.4	-	-	-	1.1	18.0	61.8
Grants	0.4	1.1	1.2	-	-	-	18.9	1.3	5.5	2.6	-	-	0.5	1.0	4.0	36.4
1978 Total	0.9	0.9	2.4	-	-	21.9	46.1	1.4	34.8	3.3	-	-	0.7	1.4	12.0	125.8
Loans	0.4	-	0.3	-	-	20.3	21.9	-	26.2	-	-	-	-	-	8.0	77.0
Grants	0.6	0.9	2.1	-	-	1.6	24.2	1.4	8.6	3.3	-	-	0.7	1.4	4.0	48.8
1979 Total	0.3	1.1	2.2	0.1	-	8.2	51.4	1.7	27.1	3.0	-	0.4	0.7	2.2	6.0	104.4
Loans	(0.4)	-	0.7	-	-	8.2	17.4	-	18.4	-	-	-	-	-	5.0	49.3
Grants	0.7	1.1	1.5	0.1	-	-	34.0	1.7	8.7	3.0	-	0.4	0.7	2.2	1.0	55.1
1980 Total	1.5	1.1	1.8	0.1	-	14.1	57.0	1.2	23.4	7.3	0.1	-	0.6	2.3	2.0	112.5
Loans	(0.9)	-	0.5	-	-	4.4	18.5	-	11.3	-	-	-	-	-	-	35.5
Grants	0.6	1.1	1.4	0.1	-	9.7	38.6	1.2	12.1	7.3	0.1	-	0.6	2.3	2.0	77.0
1981 Total	0.4	1.0	3.1	-	-	115.6	94.7	1.2	33.4	8.4	-	0.2	0.3	1.3	1.0	260.7
Loans	-	-	1.4	-	-	107.4	62.1	-	17.3	0.8	-	-	-	-	-	189.1
Grants	0.4	1.0	1.7	-	-	8.2	32.6	1.2	16.1	7.6	-	0.2	0.3	1.3	1.0	71.6
1982 Total	0.5	0.8	4.2	-	-	77.3	54.9	2.4	51.9	4.8	-	0.5	0.4	17.4	1.0	216.1
Loans	-	-	0.7	-	-	70.3	21.3	-	37.3	-	-	-	-	-	-	129.5
Grants	0.5	0.8	3.6	-	-	7.0	33.6	2.4	14.6	4.8	-	0.5	0.4	17.4	1.0	86.6

II. USAID/BRAZIL PERSONNEL SUMMARIES

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BRAZIL: U.S. PERSONNEL WORKING FOR AID, BY SECTOR, 1964 - 1974 <sup>1/</sup>

Year	Technical Support	Agriculture	Education	Health	Public Safety	Food for Peace	Other	Total
1964	59	9	14	6	22	5	89	145
1965	53	6	42	5	20	10	78	214
1966	95	49	48	12	18	15	201	438
1967	48	n/a	81	12	16	11	160	328
1968	61	n/a	83	22	15	17	140	338
1969	91	25	34	7	14	17	82	270
1970	91	50	4	5	13	15	78	256
1971	100	13	26	23	10	-	54	226
1972	48	4	10	1	-	-	47	119
1973	41	-	38	7	-	-	10	96
1974	29	-	27	1	-	-	3	60

Source: Agency for International Development.

<sup>1/</sup> Approximate: exact data are not available.

BRAZIL: U.S. PERSONNEL WORKING FOR AID, BY EMPLOYMENT CATEGORY,  
1964 - 1974 (at end of FY) 1/

<u>Year</u>	<u>Direct</u>	<u>PASA</u>	<u>Contract</u>	<u>Total</u>
1964	122	9	14	145
1965	109	19	86	214
1966	176	79	183	438
1967	118	66	136	320
1968	170	45	123	338
1969	149	31	90	270
1970	135	24	97	256
1971	138	11	77	226
1972	73	4	42	119
1973	40	3	53	96
1974	27	2	31	60

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Source: Agency for International Development.

1/ Approximate: exact data are not available.

BRAZIL: BRAZILIAN CITIZEN EMPLOYEES WORKING FOR AID,  
1964 - 1974 (at end of FY) 1/

<u>Year</u>	<u>Direct</u>	<u>Contract</u>	<u>Total</u>
1964	283	9	292
1965	307	75	382
1966	425	7	432
1967	337	4	341
1968	407	6	413
1969	376	20	396
1970	344	26	370
1971	322	24	346
1972	204	292	496
1973	n/a	n/a	n/a
1974	101	39	140

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Source: Agency for International Development.

1/ Approximate: exact data are not available.

### III. DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

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DEVELOPMENT INTERLINES INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip. External	AID Participation if Any
Vanderbilt University	IPE (USão Paulo) CEDEPLAR (FUM) CAEN (FUCeará) PIMES (PUPE.) UNBrasília ERGE/GVFound.	Development of Institutional capacity to offer Master's programs in economics primarily at IPE but also at other mentioned institutions. TA., fellowship, library materials and research support, short courses seminars  Trained 14 Ph.D, 16 ABD's, 21 MS, 1 no degree, 1 died, 34 still in training. Approximately 13 m/y of T.A.	SUBIN Ford Foundation	1963/ 1974	US\$ 3,033,800	USAID
San Diego State University	Ministry of Education (Dep. of Fund. Ed. and Dept. of Middle Ed.)	T.A. to MEC and State Sec. of Education to assist develop plans for training activities 29 long term consultants, 29 short term consultants, 38 MA and Ph.D. trainees, 76 short term trainees.		on-going	US\$ 8,433,000 <del>936,000</del> thru 7/76	USAID
University of Houston and other Universities (USA and Mexico).	Council of Rectors of Brazilian Universities and Braz. Universities.	T.A. and training to assist Brazilian higher education to improve their administrative practices and organizational structures. 264 m/weeks of consultation. Training in US: 185 short courses participants, 23 in-service trainees, 3 Master's level. 33 seminars and short courses held in Brazil and 7 in the U.S.				

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip.		AID Participation if Any
					External	Brazilian	
University of Houston	COPPE/Federal Univ. of Rio de Janeiro	T.A. graduate training abroad, research and library materials support, and equipment to assist in the establishment of a graduate program (MS & Ph.D)		1963 1970	US\$ 1,102,000	Cr\$ 341,000	USAID
Ohio State University	MEC/DAU Viçosa/Belem ESAIQ/Aréia, Paraíba	Brazilian University to Univ. Agric. Educ. Improvement-NE/ND. TA. structure, 9 m/m of TA to 8/74	ABEAS	on-going	US\$ 110,000		USAID
Vanderbilt University	SUDENE-Fed. Univ. Pernamb. PIMES (previously called Institute of Sciences of Man	Regional development planning project-SUDENE. Establishment of public administration work group, conduct socio-economic survey to provide SUDENE/USAID with basic info in selected areas where development programs were socio-economic research laboratory of F.U.Pe. and training in the US of graduate students to conduct socio-economic research work for SUDENE.  T. Assistance and Training abroad.	SUBIN	1967 1971	US\$ 597,000	US\$ 103,358 54,545 "	USAID SUBIN SUDENE UFPe.
Interamerican University Foundation	Several Universities	Program of visits and study in the U.S. for Brazilian University student leaders on the American educational, social, political and economic systems.		1969- 1970			USAID

## DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial External	Financial Particip. Brazilian	AID Participation if Any
Tufts University Medford, Mass. (L.A.T.F.)	Univ. Brasilia Fed. Univ. Rio de Janeiro Fed. Univ. of Para	Stipend and transportation for the placement of three fellows of LATF at Brazilian Universities to assist educational development through implementation of research projects and teaching.		on-going	US\$ 22,500		USAID
Tufts	Brazilian Universities	Stipend and transportation for 5 LATF fellows at Brazilian Universities to assist educational development through implementation of research projects and teaching.		1974	US\$ 15,000	Cr\$ 71,600 (trust funds)	USAID
S. U. N. Y	INEP/MEC SUDENE Secretariat of Education	Elementary Education Planning program - T.A. to State Regional and National educational institutions, to improve elementary education in Brazil.  Six long-term technicians; 48 participants in long and short training programs abroad.	SUBIN	1964 1971	US\$ 973,352	US\$ 16,400	
University of Missouri, Rolla & Columbia	Federal University of Para, at Belem	Exchange of students and professors. Technical Seminars and Cooperative. Research in Hydrology, Geology, Pathology, Computer Programming. Development of Curriculum.	IDESP (Para State Planning Agency) SUDAM, Bank of the Amazon, Petrobbras, Partners of the Americas, private	1972-Present.			USAID/B

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

DAU/MEC Survey/73

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip.		AID Participa- tion if Any.
					External	Brazilian	
MSU & Other US Universities	DAU/MEC Fed. Univ. Viçosa ESAIQ/USP Fed. Rural Univ. R. de Janeiro F. U. Ceara F. U. RGSul Vet. Sch. Fed. Univ. M. Gerais.	Higher Agricultural Education Loan-Long and Short Term. T.A., graduate training programs abroad, library materials.  To end of project: 90 m/y consultant services; 30 MS and 90 Ph.D. 's trained; 32 in short term programs;		on-going	US\$ 7,600,000	US\$ 8,287,000	USAID
I. D. B.	Fed. Univ. of São Carlos	Engineering of Materials Project Loan. Establishment of a center of research and development of materials and improvement of human resources in the area of Engineering of materials through TA and training abroad.	FNDCT CNPQ BNDE APESP CAPES	1972 1975	CR\$ 5,730,000	CR\$ 8,895,000	
Sam Houston State Univ., Texas.	Fed. Rural Univ. of Pernambuco	T.A. & Training in Agric. Educ., Hydrology, Animal Sciences, & Industrial Inspection		planned			
O. A. S.	Fed. University of Santa Maria	Establishment and implementation of a graduate program for specialists in Planning and Development of Curricula for Secondary Educ. Course opened to all countries members of OAS. T.A., fellowships, library materials.		1970 1974	US\$ 92,702	CR\$ 383,000	

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip. External	AID Participation if Any
O.A.S. & Multinational Center of Educational Research	University of Brasilia	Application of the ABS-WOM Scale (Scale of Women Behaviour & Attitudes) by the School of Education of UnB in Brz zil as part of a Regional Program for Educational Dev. of OAS attempting to make educational decisions based on scientific investigation		1972	US\$ 2,600	
Walter Reed Army Institute of Research	University of Brasilia	Support of research entitled "Chemotherapeutic Studies on Schistosomiasis" which attempts to find better drugs for the treatment of schistosomiasis.		1973-1974	US\$ 67,250	
PAHO	UnB	Research on snails of interest in the prophylaxy of schistosomiasis.		1969-1973	US\$ 5,000	
Ford Foundation	UnB	Program of studies (teaching & research) in the area of Populational Dynamics, applied nutrition and Mother-Child Health. Dev. of pilot research projects, seminars and L. American information exchange and fellowship support.		1971-		
PAHO	UnB	Provision of Medicine Text Books at low cost. UnB has the charge to study and recommend for publication text materials presented by PAHO. Fellowships awarded.	WHO	1971-		

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip.		AID Participa- tion if Any
					External	Brazilian	
Ford Foundation	UnB	Assistance for the establishment & development of Master's program in Social Anthropology. Research support visiting professors, fellowships in country and abroad & library materials		1972- 1974	US\$ 168,400		
Ford Foundation	UnB	Strengthening of graduate programs in Economics and Sociology. Research support, visiting professors exchange of faculties and students in sociology, fellowships abroad.		1972-	US\$ 162,000		
Summer Institute of Linguistics-California	UnB	Improvement of Teaching in Anthropology and Linguistic through exchange of professors, research, fellowship, visiting professors.		on- going			
New York Botanical Garden	UnB	Survey of the flora of the Central Plateau to preserve and collect specimens. Scientific cooperation through visiting researchers and studies.  2 researchers (48 m/m).		1970			

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip.		AID Participation if Any
					External	Brazilian	
I. D. B.	UFMG	Loan for the development and construction of university campus and equipment. IDB funds used specifically for equipment for Veterinary Hospital, Physics and Chemistry areas	IEC/CEPES	1968-1973	US\$ 995,000	US\$	
PAHO	UFMG	Establishment of a Regional Sub-Center of Bio-medical Scientific Information utilizing resources of Medline System of the U.S. National Library of Medicine, consultants, technical staff, training.		1972-1976			
University of Tulane/Family Health Foundation	UFMG	T. A. for teaching, research and extension in the area of health. Two foreign professors for period 7/3/75.		1972-1975			
Ford Foundation	UFMG/CEDEPLAR	T. A. graduate training abroad, salary supplementation for faculty for improvement graduate economics program.		1971-1974	US\$ 201,500		
Ford Foundation	UFMG	Development of a Master's degree program in Political Sciences. TA fellowships abroad, research support, library materials		1965-1975	US\$ 117,000		

DEVELOPMENT INTERLINES INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip.		AID Participation if Any
					External	Brazilian	
Ford Foundation	UFMG	Agreement for salary supplementation of technical staff, student teachers and training abroad.		1971-1974	US\$ 201,500		
Associated Universities for International Education	Catholic Univ. of Goias	Demographic Research		Planned	US\$ 200,000		
Miami University	Federal Univ. of Parana	Exchange of faculty members, students and research		1973			
University of Florida, Gainesville	Federal Univ. of Para	Institutionalization and strengthening of relationship and technical cooperation in the area of Human Sciences. Exchange of professors, researchers, T.A., fellowships.		Planned			
Kellogg Foundation	Federal Univ. of R.G.Sul	Assistance in the development of an Educational Technology Unit to prepare didactic materials and introduction of new teaching methods. Training of staff of school of dentistry of UFRJ, and others in Brazil and South America.		1972-1975	US\$ 271,981 (1st year only)	CR\$ 576,214	

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip. External	AID Participation if Any
O. A. S.	Federal Univ. of R.G.Sul.	Multi-national project in Physics. Research in the areas of experimental and theoretical physics for the development of M.S. & Ph.D. scientists in Brazil and Latin America. OAS contributes with equipment and visiting scientists.	CNPQ	1972-1973	CR\$ 37,200	
O. A. S.	Federal Univ. of R.G.Sul.	T.A. (1 technician) for the Program of graduate studies in Urban and Regional Development.		1973-1973		
I. D. B.	PUC/RJ (Rio Datacentro)	Computer Technology Project. Loan for the purchase of an IBM 370/365 computer to enable better computer methods and training of staff.	FINDCT		US\$ 3,335,000	US\$ 3,139,951
Inter-American Foundation	PUC/RJ (Rio Datacentro)	T.A., fellowships, library for the development of a graduate studies program in Juridical Sciences.		1972-1974	US\$ 176,500	US\$ 210,800
O. A. S.	PUC/RJ	Library materials survey in Brazil for the establishment of a Master's Degree program in the area of Philosophy.		1973-1973	US\$ 1,500	

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip.		AID Participa- tion if Any
					External	Brazilian	
I. D. B.	Federal Univ. of Rio de Janeiro	Fundão project. Construction and equipment for the Technological and Biomedical areas		1967- 1973	US\$ 10,470,000	US\$ 7,430,000	
First National City Bank	Federal Univ. of Rio de Janeiro	Loan to assist conclusion of 1st phase of construction of Fundão campus		1970- 1973	US\$ 10,000,000		
O. A. S.	UFRJ/COPPE	Research and studies in the area of transfer of energy in nuclear reactors, specially of the type of Furnas reactors. Foreign researches.		1973- 1974	US\$ 8,600		
Ford Foundation	Federal Univ. of Pernambuco	Nutrition studies of the Northeast project. Training of staff, visiting professors, research and library support.		1974			
Ford Foundation	FUPe/PIMES	Integrated Program of Master's Degree in Economics and Sociology. Faculty salary supplements, visiting professors training abroad, research and library support.		1973- 1975	Cr\$ 450,000	Cr\$ 40,000	
Bowling Green State Univ., Ohio/Fullbright Foundation	Catholic Univ. of São Paulo	Exchange of professors and students in the area of Social Psychology under the sponsorship of Fullbright Foundation.	Fullbright				

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip.		AID Participation if Any
					External	Brazilian	
Ford Foundation	Federal Univ. of Viçosa	Institutional Development project. T.A., training of faculty, equipment, books, contracting of new professors, etc.		1970-1973	US\$ 286,000		
Ford Foundation	Federal Univ. of Viçosa	Strengthening of the Department of Rural Economics-Development and strengthening of Ph. D. program. Through T.A., training abroad, library and research support - 2 long term U.S. professors to 74.		1972-1973	US\$ 237,000		
Ford Foundation	Federal Univ. of Viçosa	Staff development project. Fellowships for graduate studies programs abroad for faculty		1969-1975	US\$ 120,000		
OAS/IICA	Federal Univ. of Viçosa	Cooperative Program of Library Improvement-conduct studies for the improvement of agric. librarians. T.A. to interested institutions; promote exchange of materials and info.		1971-1973	US\$ 18,000		
O.A.S.	University of São Paulo	Development of an Inter-American Course for Education Administration and Supervisors. Participants from Latin American countries. T.A. and fellowships.	INEP	1973-1973	US\$ 75,000	US\$ 403,600	

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip.		AID Participa- tion if Any
					External	Brazilian	
O.A.S.	University of São Paulo	Multi-national Project in Genetics -- Conduct research on Human and Animal Genetics, promote grad. programs in Genetics		1973 1974	US\$ 38,704		
University of Austin, Texas	U.S.P.	Exchange of professors and researchers in the area of geology; 2 to 4 technicians;		plan- ned for 1974			
*Vanderbilt Univ. Univ. of Chicago UC-Berkeley Purdue Univ. Yale Univ.	U.S.P. (FIPE)	Exchange of Senior Professors short seminars and study activities. Mutually executed research. Training in-country and in U.S. short and long term.	FORD IDB State of SP Fed. Govt. Private Firms	1973 1974	US\$ 1,866,600	US\$ 2,310,000	USAID
I. D. B.	Federal Univ. of Ceara	Technical cooperation project for the implementation of the Univ. Reform; develop an Info. system for Univ. Adm., strengthen data processing and improvement of technical-administrative staff.		1974- 1975	US\$ 98,000	US\$ 92,000	

\* Figures provided by U.S.P. in DAU survey don't coincide with USAID figures.

## DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip.		AID Participation if Any
					External	Brazilian	
Rockefeller Foundation	Federal Univ. of Ceara	Research project to analyze the causes of under-utilization of manpower in the urban areas of Brazil's Northeast and development of institutions responsible for the conduct of socio-economic studies of NE Region		1973 1974	US\$ 31,000		
Ford Foundation	Federal Univ. of Ceara	Program for the development of Sorghum-Research studies, T.A. and fellowships abroad.		1970 1975	Cr\$ 1,314,000	Cr\$ 166,900	
Ford Foundation	Federal Univ. of Ceara-CAEN	Graduate Economics Program (Master's level) Graduate training in the U.S. for faculty members improvement in the teaching of Economic research for regional development.		1964 1973	US\$ 550,400	US\$ 721,815	
Ford Foundation	Federal Univ. of Ceara	Development of Graduate Studies (Master's level) program in Rural Economics and T.A. and fellowships, research		1969 1977	288,000	151,025	
Ford Foundation	Federal Univ. of Juiz de Fora	Research on the Biology of Reproduction		1973 1975	US\$ 120,000		

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip.		AID Participa- tion if Any
					External	Brazilian	
Kellog Founda- tion	Federal Univ. of Bahia	Assistance for the development and implementation of a course for Nurse Assistants		1968 1973	US\$ 4,520 (for 73 only).	--	
Kellog Founda- tion	Federal Univ. of Bahia	Development and implementation of a course for Midwives		1974			
Kellog Founda- tion	Federal Univ. of Bahia	Change of the role of a university hospital in a Brazilian community		1969 1974	US\$ 600,000	Cr\$ 500,000 (for 73 only)	
Kellog Founda- tion	Federal Univ. of Bahia	Support Project to the area of Pharmacology		1967- 1973	US\$ 111,000		
Ford Foundation	Federal Univ. of Bahia	Research on the Biology of Reproduction and control of Fertility	Ford F. 886,500 Popul. Council (US\$25,740) World Health Org. (US\$... 24,400)	1966- 1975  1967 1973	US\$ 941,640		
Research Defense Office	Federal Univ. of Bahia	Research on the Mansonic Schistosomiasis		1970- 1973	US\$ 51,431		
PAHO/WHO	Federal Univ. of Bahia	Research on Community Medicine in the Municipality of Cruz das Almas; 2 technicians			US\$ 35,000		

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial Particip.		AID Participation if Any
					External	Brazilian	
PAHO/WHO	Federal Univ. of Bahia	Research of Communicable Diseases		Planned			
I.D.B.	Federal Univ. of Bahia	Loan (MEC/IDB agreement) for construction and equipment for the university campus	MEC/CEPES		US\$ 2,500,000	US\$ 2,500,000	
Rockefeller Foundation	Federal Univ. of Bahia	Research and Education for Development Project, involving several specific sub-projects, T.A., fellowships, equipment, library materials, etc.; 5 technicians until Dec. 1973	Involvement of other Institutions foreseen	1973-1982	US\$ 10,000,000 (estim.)		
Cornell Univ. Common Wealth Found. & Rockefeller F.		Training and Research in the area of Health Sciences (continuation of previous project)		1973-1975	US\$ 50,000		
National Acad. of Sciences		Survey of Brazilian higher education		1959-1961	US\$ 46,300	US\$ 5,000	USAID
Michigan St. University	Getulio Vargas Found.	Assist the GVF in establishing a School of Business Admin. in São Paulo at the College level and in training a staff of Brazilian professors		1953-1966	US\$ 1,594,000	US\$ 76,100	USAID

DEVELOPMENT INTERLINES INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial		AID Participa- tion if ANY
					External	Particip. Brazilian	
Michigan St. University	Polytech- nical School University of São Paulo	To advise and assist in the establishment of a curriculum of Production Management Engineering and the development of the required courses of instruction. To train a staff of Brazilian professor for that Faculty		1956-1966	US\$ 267,888	US\$ 180,000	USAID
University of Southern California and Michigan St. University	DASP-School of Public Serv. Univ. of Bahia Univ. of RGS & S. Paulo Business School	Technical assistance in public and in business administration to the mentioned Brazilian Institutions		1959-1966	US\$ 4,440,000	-	USAID
Los Angeles St. College; San Francisco St. College; Colorado St. College; Polytechnic Inst. of Brooklyn Utah St. College;	St. Univ. of Alagoas; St. Univ. of Paraiba; St. Univ. of Bahia; St. Univ. of Pernambuco St. Univ. of R.G. Norte	To identify and promote industrial investment in rural areas of the North-east Region		1964-1971	2,541,000	-	USAID

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial		AID Participation if Any
					External	Particip. Brazilian	
IRI Research Institute		To assist the MINAG, the State Secretariats of Agriculture, and the Agricultural universities in the field of research to determine the most economic and efficient means of producing livestock and feed crops.	FAO	1964-1972	US\$ 4,272,000	US\$ 5,456,000	USAID
Purdue Univ.	Rural Univ. of Minas Gerais	To develop within the Rural Univ. of Minas Gerais the professional and technical competence and institutional capacity to permit the Univ. to provide technical guidance in the development of the State's total agricultural resources.		1951-1973	US\$ 9,219,000	-	USAID
Wisconsin Univ.	Univ. of Rio G. do Sul	To improve the competence and increase the capabilities of the URGS by establishing at the Agricultural Colleges of the University courses leading to masters degrees in Agric. Economics, Animal Nutrition, Soils and Plant Sciences; and up grading undergraduate training.		1963-1973	US\$ 4,052,000	-	USAID

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial External	Particip. Brazilian	AID Participation if Any
Univ. of Arizona	Univ. of Ceara	To strengthen and develop the extension, teaching and research capability of the College of Agriculture of the Univ. of Ceara and to develop a coordinated system of planning, research, teaching extension and administration.		1963 1973	US\$ 3,715,000	- -	USAID
Ohio State University	Superior School of Agriculture Luiz de Queiroz (ESAIQ)	To improve the capacities of the ESAIQ to train agricultural specialists to meet the rapidly growing needs of the State and Nation and to accelerate the development of the total agricultural resources of the State of São Paulo		1963 1973	US\$ 3,533,000	-	USAID
Mississippi St. University	-	To stimulate agricultural production by development of a seed industry in the Brazilian private sector which with governmental regulatory cooperation will insure farmers on adequate supply of quality seeds at reasonable cost, and result in an appreciable increase in production.		1963 1974	2,276,000	-	USAID

DEVELOPMENT INTERLINKS INVOLVING UNIVERSITIES

American and/or Inter-American Institution	Brazilian Institution	Type of Project, Activities and Indication of Scope	Other Participating Agencies	Time	Financial External	Particip. Brazilian	AID Participation if Any
Land Tenure Center, Univ. of Wisconsin	IFRA INDA	Assistance to IBRA, INDA in research studies to include: 1) demographic studies for determining migration and population changes in rural areas; 2) studies of individual families to get at the social, economic factors affecting migrations and settlement; 3) studies of planned different kinds of economic educational and related activities in area of migration.				- - -	AID/W Contract
National Academy of Sciences NAS	National Research Council of Brazil (CNPq)	To increase the level of scientific and technological cooperation between the CNPq and the IAS in order to stimulate investigations and scientific research.		1968 on-going	10,595,000	-	USAID
University of Michigan	Instituto Tecnológico da Aeronautica, ITA, at S. Jose Campos	To assist the ITA in mechanical engineering		1962 1968	\$2,036,000 <del>222,999</del>	-	USAID

NOTE: The information provided in this list was obtained through a survey of Brazilian universities conducted by CODEAI/DAU/MEC mid-1973. The correctness of the info. could not be verified.

IV. FOOD FOR PEACE

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BRAZIL

DOLLAR VALUE OF COMMODITIES PROGRAMMED UNDER TITLE I, PUBLIC LAW 480 - AGREEMENTS SIGNED  
(millions)

	1	2	3	4	5	6	7
	Wheat and Flour	Feed Grains	Tobacco	Dairy Products	Fats and Oils	Other	Total Market Value
To							
1962	336.7	0.6	0.7	1.9	4.1	-	334.0
1963	82.7	-	-	-	-	-	82.7
1964	70.5	0.8	-	0.7	8.7	1.1	81.8
1965	-	-	-	-	-	-	-
1966	58.6	-	-	-	-	-	58.6
1967	34.2	-	-	-	-	-	34.2
1968	10.4	-	-	-	-	-	10.4
1969	21.0	-	-	-	-	-	21.0
1970	23.7	-	-	-	-	-	23.7
1971	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1972	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-
Total	637.8	1.4	0.7	2.6	12.8	1.1	656.8