



**SUMMARY OF
AID INPUTS AND
SOCIO-ECONOMIC CONDITIONS IN:
BRAZIL AND TANZANIA**

Presented To The

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INTERNATIONAL SUPPORT FOR THE RURAL POOR IN TANZANIA

Page

1-20

IMPACT OF LAND REFORMS IN BRAZIL AND TANZANIA

21-24

TRANSFORMATION OF BRAZIL AND THE RURAL POOR

25-38

The first of these is the fact that the number of agricultural workers has increased steadily since 1950. This is shown in Table 1, which shows that the number of agricultural workers has increased from 1.1 million in 1950 to 1.4 million in 1960. This increase is due to a number of factors, including the fact that the number of people engaged in agriculture has increased, and the fact that the number of people engaged in agriculture has increased.

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Table 1

Indices of Total and Full-Care Agricultural and Food Production
 (1951 = 100)

Year	1950	1955	1960	1965	1970	1975
Total	100	115	130	145	160	175
Food	100	110	125	140	155	170
Non-Food	100	120	135	150	165	180
Total	100	115	130	145	160	175
Food	100	110	125	140	155	170
Non-Food	100	120	135	150	165	180

The survey data shows that the rural population is still heavily dependent on agriculture for its livelihood. The estimated value of agricultural production of the 1960s, the year by which the 70% of 70 percent was derived from agriculture, was about 100,000 tons. Rural farm households had an average cash income of 100,000 (nearly US \$100) per person. By comparison, urban non-farm households had an average cash income of 100,000 (nearly US \$100) per person, or about four times the average cash income per person in rural areas. This disparity, however, is not of real significance since there are only about one million in the urban population and their earnings in the form of wages and salaries are fixed by the Government.

Estimates for 1973 place the national per capita GDP at 100,000 (US \$11.4) and the per capita GDP of rural households at 100,000 (US \$11.4) which reflects not only the per capita incomes of rural farm households but also the income from salaries. While there has been some rise in agricultural production since the 1960 household survey, most of the gain has been in the 70% of 70% of the population in the result of increases in productivity, which has been due to better production supplies.

In 1973, subsistence production accounted for 54 percent of the gross product from the agricultural sector. If agricultural exports are deducted from the total sector product, subsistence production represents 73 percent of the remainder.

Food and Export Crops

In an economy where subsistence agriculture dominates, producers are first concerned with having enough output to meet their own on-farm food consumption requirements. Depending on the size of the crop, supplies in excess of on-farm consumption needs may be stored for later disposition if not perishable or else marketed as may be dictated by producers' cash requirements, the amount of cash income received from various sources, and the situation with respect to the demand and price for the product in the marketplace. Under these circumstances, there may be considerable variation in the volume of a product that farmers may utilize themselves or else move to market from one year to another. The pattern of production of selected food and export crops over recent years is indicated in Table 2.

Production of Major Agricultural Crops, 1954-55

Average 1954-55 for Annual 1954 through 1973

Item	Average 1954-55	1959	1970	1971	1972	1973 ^{1/}
Food Crops						
Cassava	1,189	1,400	1,470	1,500	1,500	1,590
Sorghum and Millet	1,121	1,150	1,180	1,200	1,200	1,165
Corn	878	538	850	547	800	840
Beans, dry	255	280	285	280	280	285
Rice, paddy	103	144	183	185	185	175
Sugarcane	72	68	82	88	110	117
Wheat	32	39	61	63	65	50
Export Crops						
Coffee	47	46	58	51	48	48
Cotton	64	71	83	65	65	76
Sisal	219	209	202	181	197	150
Cashews, in shell	81	91	100	128	116	116
Tobacco	8	12	11	12	13	13
Tea	7	9	8	11	12	14
Pyrethrum	5	4	2	4	5	5

^{1/} Preliminary.

Source: Economic Research Service, U. S. Department of Agriculture

The principal staple food items in the Tanzanian diet are sorghum, cassava, and corn. Sorghum is the leading cereal crop and is produced in all parts of the country except northern Tanga, the eastern regions, and certain isolated areas. Corn is also important and its production is mainly in Tanga and areas around Iringa. The output is mostly white corn sold mainly for urban consumption. Cassava, however, is the country's largest crop in terms of tonnage and spread of production. Under conditions that

overall in Tanzania, because of the high moisture of the land of growing and harvesting the root crop, its resistance to drought, and its ability to hold its nutritive value for a long period in "living storage" in the ground.

Also grown as staples where climate, soil and altitude permit, are sweetpotatoes, finger millet, potatoes, and bananas or plantains. Other food crops include wheat, pulses, rice, peanuts, oranges, tangerines, sugarcane, and nuts. Although the country has livestock numbers, mostly cattle, considerably in excess of its human population, production of the various animal products is relatively low.

Computations by the recent World Bank Mission, based on supply and disposition, including per capita availabilities, of foodstuffs, place the average 1972 daily intake of food per capita at 2,009 calories, 52.0 grams of protein, and 33.2 grams of fat. Of the total calorie intake, 42 percent was accounted for by cereals and 20 percent by starchy root crops and bananas or plantains. Cereals also furnished 43 percent of the total protein while 16 percent came from various seeds, including pulses and nuts. While minimum nutrient intake requirements under conditions in Tanzania are not known, the World Bank Mission reports that recommendations by experts are around 2,300 calories and 51 grams of protein per person per day. Thus, it is indicated that 1972 nutritional levels were about 10 to 15 percent below the standards recommended.

...the Government has tried to improve nutrition through efforts to stimulate subsistence production and dietary education. One recently launched program seeks to encourage each rural family to raise chickens and at least one fruit and vegetable crop strictly for its own consumption. Commercial food production has been slow in expanding and output has continued to fall short of requirements for adequately feeding the small but growing urban population. Possibilities for enhancing nutrition through improvements in the food distribution system have been receiving increasing public attention.

Development Strategy and the Ujamaa Concept

In its efforts to increase agricultural production, the Government has sought to expand extension services, reorganize and improve the marketing system along with its infrastructure, and subsidize the use of fertilizers, pesticides, and improved seeds. However, the biggest and most important occurrence has been the establishment of the system of Ujamaa villages as a means of achieving rural development and attaining desired social and other transformations.

The name "Ujamaa" is Swahili for "village" and it is used to embody the principles of freedom, equality, and sharing. As a concept, Ujamaa has become the force guiding Tanzania's development and also the ideal, or social ethic, with which the people are being imbued. It is a manifestation of the Arusha Declaration issued in January 1967 by the Tanganyika African National Union (TANU) which committed the Party and the Government to the creation of a socialist state. As explained by President Nyerere in his "Socialism and Rural Development" which was issued in September 1967, "the objective of socialism in Tanzania (is) to build a society in which all members have equal rights and equal opportunities, in which all can live at peace with their neighbors without suffering or imposing injustice, being exploited or exploiting, and in which all have a gradually increasing level of material welfare before any individual lives in luxury."

In theory, the Ujamaa village is a cooperative society in which all tasks from the production and marketing of crops to the development and management of public services are carried out communally. From this is to come the basis from which rural markets, small industries, and general rural economic development will be brought into being. In essence, the Ujamaa villages would thus serve as the foundation not only of agriculture and the economy, but also of the social and political system.

village must prove that it is economically viable and that a substantial part of the members are members of the community. Once recognized as a cooperative society, the Ujamaa village becomes part of the general cooperative movement over which the Government has firm control and also intervenes in its affairs.

Ujamaa villages are given priority attention by the Government in its allocation of technical and financial resources to supply them with extension and other field personnel and to fund investments in water development, health and educational facilities, provide cooperative services, and production credit. Apart from the element of governmental and political persuasion in organizational efforts, this priority attention has had considerable appeal in the establishment of Ujamaa villages.

In the development of Ujamaa villages, a good part of the resources furnished by the Government has been spent on providing social services with one of the main purposes being to gain the appreciation of the farmers for the resulting benefits without any requirement of at least some input on their part. In such a situation, production became a secondary consideration among the farmers as they diverted their energies to getting themselves settled and adjusting to a new environment. Thus, instead of promoting self-help consistent with rural development program policy, the Government's heavy dependence on the Government has led to low productivity.

business and those who have other investments such as in coffee and tea plantations. This is reflected by the comparatively small and relatively static Ujamaa population in the wealthier regions of Kilimanjaro, Shinyanga, and Arusha.

Moreover, among the Ujamaa villages there is considerable variation in the status of and the progress made by individual settlements since much of the growth is of recent origin. Some of them are Ujamas only in name. There are others that have both private and communal land, the cultivation of which has not yet changed to a total communal operation. On an overall basis, most Ujamaa villages have yet to emerge as functioning communities in which the people of each work as a group to improve its own way of life and achieve a level of self-support in terms of production and income adequate to finance an improved standard of living.

Impact of Government Policies

So far, the Ujamaa population represents little more than one-fifth of the total in Tanzania dependent on agriculture. The Ujamaa movement, with its high priority demands for scarce extension or other trained personnel and financial resources, is contracting the private agricultural sector and will continue to do so as the number of these villages increases. It is in this situation that the future of the progressive farmer, whether small or large, has become uncertain. From what has developed in the past few years, it is apparent that without necessary farmer

...the Government has been unable to provide the ...
...at a price high enough to provide the ...
...to keep on producing.

Development in Prices in Tanzania

In Tanzania, where there is Government control or intervention of one form or another in the marketing system, prices for various agricultural commodities often bear little relationship to what, from an economic standpoint, buyers should pay or producers receive. The way the marketing system is presently organized and operated, it is mostly inefficient and Government price decisions have frequently affected producers adversely. Although the private sector in marketing continues to play an important role, it has been declining and is not encouraged by Government. In fact, Government is exercising increasing control of both production and marketing through various structures such as cooperatives, boards, authorities, and trading companies.

For most of agriculture, the effect of Government policies and programs has been to hold down producer prices contrary to expressed intentions. A major exception has been in the case of certain production for export where encouragement was given to expand output and increase export earnings.

Except in years of poor harvest, Tanzania imports only one to two percent of its food needs. Agricultural exports in 1972 totaled US \$31.4

...the sharp increase in demand for agricultural supplies was caused by adverse crop conditions in the previous year and because input requirements have been rising even faster than production. By comparison, 1971 agricultural imports totaled US \$71.8 million. Over the years, the two major categories of agricultural imports have been cereals and cereal products and dairy products.

Agricultural imports amounted to 8.5 percent of total imports in 1972 and 8.1 percent in 1970. By far most of Tanzania's total imports recently have been directed at developing Tanzania's industry and infrastructure and consist largely of transport equipment, intermediate products, and capital goods. Total imports in 1972 amount to US \$363.8 million compared with US \$271.6 in 1970, and US \$179.9 in 1966.

Tanzania relies heavily on its agricultural exports to help pay for necessary imports. In 1972, agricultural exports amounted to US \$228.2 million, equivalent to 75.8 percent of the US \$301.1 million derived from all its exports. By comparison, agricultural exports in 1970 had a value of US \$190.7 million with total exports at US \$257.1 million. About 55 percent of Tanzania's agricultural exports and 50 percent of the country's total export earnings come from seven crops -- coffee, cotton, cashews, sisal, tobacco, tea, and pyrethrum. Other agricultural exports include sugar, hides and skins, and meat and meat products.

of income as a result of an increase in the price of their
products. This is particularly so since the farm
population does have a measure of capability and know-how for increasing
output considerably above recently prevailing levels.

While production produces income, the output over time will be
forthcoming only in proportion to the extent that there is an incentive to
keep on producing. In the marketplace where commodities are bought and
sold, the level of prices in relation to input costs determines whether or
not there is a production incentive. Experience in Tanzania has shown
that where Government controls depressed commodity prices to unsatis-
factory levels, from the standpoint of producers, the reduced incentives
were reflected in curtailment or stagnation of production. On the other
hand, productivity was increased when incentives were favorable to pro-
ducers. Thus the problem of providing necessary production incentives
and raising incomes of the farm population is directly related to the
adequacy of income of the non-farm population and its ability to pay for
the food and other products in the quantities desired from agriculture.

This situation gives rise to a mutual interest in the level of income as
expressed in terms of buying power on one hand and incentive to produce
on the other. This situation is particularly acute in the case of the
smallholder farmer who is dependent on the market for his products and
for his requirements. The incentive to produce is directly related to the
level of income of the non-farm population and its ability to pay for the
food and other products in the quantities desired from agriculture.

...the total production of food and supplementary food imports, total availabilities only permitted an intake of food per capita for 1971 which for 1972 was calculated to be 10 - 15 percent below recommended national levels.

Some Focal Points for Attention

In this setting of low productivity in a largely subsistence agriculture, rural poverty has persisted. From the standpoint of the Government, there is urgent need to take stock of the prevailing situation with reference to the Ujamaa program and the position of agriculture as a whole under governmental price-income policies and various forms of control and intervention that already have had a negative impact on production or market performance. Realistic price-income policies are essential as a base for adequate incentives being available not only to agriculture but also industry for increasing productivity. While all this is basic and of high priority, there are additional important needs to be met and these include strengthening supporting services such as extension and technical assistance along with training and research, advancing technology, rationally using and expanding the use of various farm inputs, and further providing essential facilities and infrastructure. But in the forefront, must be the incentive to produce and by boosting output thereby raise the overall

standard of living through the medium of increased incomes. Increased incomes would also contribute to governmental financing of necessary social services and other public benefits that otherwise would be inadequately supported.

Multipplier Effect of Production

Among those with low incomes who are not food producers, the demand for food may be expected to expand rather rapidly as their incomes improve. With increased production, others should also be assured of obtaining adequate quantities at reasonable prices. Thus through higher productivity agriculture would also be contributing to price stability and more food becoming available for a smaller total expenditure. With a lower share of earnings being spent on food, it becomes possible for income of individuals to be released for buying other goods or services and this contributes to growth in other segments of the economy. In such a sequence, this is followed by increases in investment opportunities in expanding sectors and opens employment opportunities for more people.

With a sustained increase in agricultural productivity and expansion directed at achieving specific realistic goals in crop and livestock output, as buying power improves, it should be possible over time to provide adequately for an overall per capita intake of food consistent with recommended nutritional levels. During this stage of growth, producer incomes could be increased at appreciable rate. However, this kind of rise may be

...the overall demand level of food ...
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Thus it becomes apparent that as increased productivity on a sustained basis is achieved, fewer farmers need to be engaged in agriculture to produce an adequate supply of food for the expanding population. Moreover, improvement in agricultural production helps in the formation of capital necessary for growth both within the sector and in other segments of the economy.

The process by which all this happens opens the way for at least two additional income oriented alternatives for those in agriculture who desire to improve their situation. For some there would be the alternative of diversifying or entering into new production of commodities for other than indigenous food consumption and thus produce raw agricultural commodities and products for domestic industrial uses or export sale which would expand urgently needed foreign exchange earnings. For others there would be the alternative of shifting out of agriculture into other enterprises or off-farm income producing employment as in industry or trade. Such a release of labor resulting from higher agricultural productivity could contribute significantly to the development of other sectors of the economy. But first, Government policies need to recognize the changes required within agriculture and the actions necessary to facilitate bringing them into being.

SUMMARY OF AID PROJECTS, 1960-61 AND 1962-63

The following tables present in summary form findings pertaining to AID effort in the country for Brazil over the period 1960-61 and 1962-63. The format of the tables has been designed in a manner that readily addresses the subject of AID impact upon the rural poor. Three major sections summarize AID inputs:

- I. AID project and loan inputs which, by stated design, intended to impact directly upon the rural sector.
- II. AID inputs which, by intention, directly impacted upon the urban sector.
- III. The proportion of urban sector inputs which indirectly benefit rural to urban migrants who, owing to their transient status, may call for inclusion in a discussion of the rural poor.

As shown in sections I and II of the tables, a determination of AID input entails a two-fold consideration: the narrative design or goals of AID interventions and the financial magnitude of intervention. Accordingly, goals were summarized briefly within each technical sector (agriculture, education, etc.) and figures summarize AID funds, both project and loan, actually disbursed by year and by technical sector.

Sources utilized to derive goal statements were the official program and project summaries found in the annual Country Assistance Program submissions, project Audit Reports, and Project Appraisal Reports. Project funding statistics were determined using the project financial statements in the CAPs and loan funding derived from the fiscal year Financial Loan Status Reports. It should be noted that considerable statistical inconsistency existed among the various documents reviewed. Hence, the tables necessarily present a correlation of the sources which

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Clearly, a rural or urban migrant who eventually finds his rural status but rather eventually engages in urban activity, builds an urban home and, in effect, becomes a permanent urban sector member regardless of his socio-economic status. Based upon an extensive review of migration studies, a median urban absorption rate is assumed to be a three year period. Thus, a running three year sum of migration figures as a proportion of the total urban population was then applied to the Direct Urban Sector Program inputs to arrive at the potential migrant benefit from AID urban oriented programs. In conclusion, the final row of figures in the tables represents a potential effect upon the rural poor supplementary to the direct rural benefit shown in section E.

The three sections of each table afford a summary analysis of AID effort both directly and indirectly impacting upon the rural poor in Brazil and Tanzania.

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TANZANIA - AID INPUTS IN DOLLARS INCLUDING LOANS BY SECTOR, BY PROGRAM CATEGORIES AND BY YEARS

Code	Type	Principal Goals	FY 1964	1965	1966	1967	1968	1969	1970	1971
(in thousands of U. S. dollars)										
RURAL RURAL SECTOR PROGRAMS										
100	Agriculture	Trained manpower, Productivity, Education, Research, Credit	326	317	311	308	300	290	280	270
200	Industry									
300	Transport									
400	Labour									
500	Health									
600	Education	Secondary vocational agricultural education								
700	Public Admin.									
800	Community	Community development through self help approach	1077	1177	1091	1110	1037	1000	980	960
900	Other	Special rural projects assistance				18	30	24		
	Total		4923	484	905	1322	300	300	270	260
RURAL URBAN SECTOR PROGRAMS										
100	Resources									
200	Industry	Improve communications, Secondary industry development	54							
300	Transport	Highway construction and maintenance		31	637	432	728	949	307	24
400	Labour									
500	Health	Expand, improve urban water supply			1065	771	175	230	80	0
600	Education	Vocational, Technical, Secondary, Teacher training, Planning	161	254	1300	1004	409	721	1182	370
700	Public Admin.	Public safety, Upgrade and Africanize public services, Youth training	40	163	230	302	312	550	444	240
800	Community									
900	Enterprise									
000	Other	Technical support, Strengthen public works planning	1225	394	343	362	302	707	500	300
	Total		1480	742	4253	2449	2126	2004	2000	564
TOTAL AID INPUTS			1973	1236	5155	4164	3027	3709	3170	1927
POTENTIAL MIGRANT PORTION IN URBAN PROGRAMS										
	Migrant (rural to urban) (est. in thousands)		96	39	31	23	16	19	6	14
	Potential assistance (U. S. \$ in thousands)		232	76	225	111	56	50	45	18

...the process of transformation from a rural
agriculture to a modern and growing urban industrial nation. In the change
that has taken place, agriculture with its rural areas still provides the
foundation on which the overall economy rests and flourishes. But with
all these developments over the years, the country continues to have a
general problem of wide disparity in income distribution and pockets of
real poverty in both rural and urban areas.

Despite the development that has already taken place, Brazil is a
vast country with much of its resources still untouched. In size, Brazil
is larger than the United States mainland and occupies almost half of the
area of the South American continent. By far most of the development of
both agriculture and industry has been in the states of the eastern and
southern regions while the rest of the country still remains largely unex-
ploited and sparsely populated. A major exception is the Northeast Region
which not only has a relatively large population but also a considerable con-
centration of poverty. Thus in addition to its many natural resources,

Brazil has a large human resource that is not yet fully utilized since the
people involved in this category are mainly the poor and those with low in-
comes in the Northeast and other areas, but particularly in the Northeast.

Characteristics of the Economy

The economy of Brazil is characterized by a wide variety of resources and its
development has been uneven, with the most advanced areas concentrated in the Southeast

...the ...

...to ...

...and to provide ...

...of the country may ...

...of Minas Gerais, Guanabara, Parana, Sao Paulo, ...

...of Sao Paulo is by far the most ...

...the most prosperous part of the country ...

...The ...

... growth rate of 10.5 percent in 1973, which was the highest rate in the world. This was due to a combination of factors, including a strong performance in the agricultural sector, which contributed 12.5 percent to the total growth. The services sector also showed a strong performance, contributing 10.5 percent to the total growth. The industrial sector, however, showed a decline, contributing -1.5 percent to the total growth.

... of the GDP with agriculture contributing 12.5 percent, services 10.5 percent, and industry -1.5 percent. The services sector has been the main driver of growth, particularly in the areas of retail trade, hotels, and restaurants. The industrial sector, on the other hand, has been in a state of stagnation, with a decline in output in several key industries.

... Brazil's GNP at current prices totaled an estimated US \$63.5 billion in 1973, which is an increase of 10.5 percent over the 1972 level of US \$57.5 billion. This compares with a total GNP at current prices of US \$51.5 billion in 1970, or US \$215 per capita on the basis of 1972 prices. The increase in GNP is primarily due to the strong performance of the services sector, which has averaged well over 10 percent growth in recent years.

... the rate of growth in agriculture has averaged well over 10 percent in recent years. The elastic structure of the economy, as shown in Table III, has allowed for a high rate of growth in the services sector, which has been the main driver of growth. The industrial sector, however, has shown a decline in output, particularly in the areas of manufacturing and construction.

... Table III - Brazil: Comparison of economic growth rates, 1970-1973. The table shows the annual growth rates for the total economy, agriculture, services, and industry. The total economy growth rate is 10.5 percent, agriculture is 12.5 percent, services is 10.5 percent, and industry is -1.5 percent.

Year	Total Economy	Agriculture	Services	Industry
1970	10.5	12.5	10.5	-1.5
1971	10.5	12.5	10.5	-1.5
1972	10.5	12.5	10.5	-1.5
1973	10.5	12.5	10.5	-1.5

... The services sector has been the main driver of growth, particularly in the areas of retail trade, hotels, and restaurants. The industrial sector, on the other hand, has been in a state of stagnation, with a decline in output in several key industries. The agricultural sector has shown a strong performance, contributing 12.5 percent to the total growth.

...the 1950s, the government's policy was directed at import substitution... GDP growth was at an annual rate of 8.8 percent and imports rose only 2.1 percent per year.

At the same time, use of a multiple exchange rate policy designed to give strong incentives to import substitution had the effect of also discriminating against exports and stagnated export earnings. This upset the balance between the need for imports and the ability to pay for them out of export earnings, thus giving rise to balance of payment difficulties and chronic inflation. The chaotic situation gave rise to the 1984-87 stabilization program and various reforms which shifted from the strong emphasis on import substitution to encouragement of vigorous economic growth and diversification of exports. The results of this change in development policy are reflected in the dramatic gains made by the overall economy since those years.

Development Strategy and Policy

The government's development strategy has been to encourage the growth of the private sector and to attract foreign investment.

The population of Brazil has increased from 41,232,200 in 1940 to 94,508,500 in 1970, a total increase of 53,276,300, or 128 percent. The average annual growth rate was 2.3 percent over the 30-year period. The population of Brazil was 41,232,200 in 1940, 51,044,400 in 1950, 70,992,300 in 1960, and 94,508,500 in 1970. Brazil's population growth rate has been a high 2.3 percent a year since 1940, with an average of 2.3 percent for the 1940-70 period. This compares with an average annual growth rate of 2.2 percent for the 1950-70 period and an average of 2.3 percent over the 1940-70 decade.

Along with a rapidly increasing population, Brazil has shifted from being a predominantly rural nation to a substantially urbanized country. As shown in Table 22, this has been a dramatic changeover which took place during the 1940-70 period.

Table 22. - Brazil: Population changes and rural-urban composition, 1940-70

Item	1940	1950	1960	1970
Population (000)	41,232.2	51,044.4	70,992.3	94,508.5
Total percent	44.8	53.8	55.0	44.0
Urban percent	21.2	32.5	45.0	64.0

Source: Author's calculations based on data from the 1940, 1950, 1960, and 1970 censuses.

...the number of people in rural areas increased from 28.7 million in 1950 to 30.0 million in 1955 and 31.0 million in 1960, while the total population rose from 54.0 million in 1950 to 64.5 million in 1960.

By 1970, the rural-urban relationship had reversed from that of the earlier years with the rural population in 1970 representing 46.0 percent of the total of 94.5 million and the urban proportion rising to 50.0 percent. Thus in 1970, there were 41.5 million people in rural areas with an increase in the urban total to 53.0 million.

In terms of change that took place in the 1960-70 intercensal period, the rural population during that decade increased by only 2.5 million while there was a gain of 11.5 million in the urban sector. Thus between 1960 and 1970 the rural population increased at an annual rate of only 0.7 percent while the gain in urban numbers was at an annual rate of 1.3 percent. During the 1950-60 period, the rural population grew at a rate of 1.1 percent annually while the urban sector grew at a rate of 2.1 percent annually.

The migration had been slow in the past, people had been primarily involved with the land, people in rural areas and small towns who sought to improve their lot in urban centers where economic activity was expanding or by settlement in other parts of the country which included extension of the agricultural frontier. Among the migrants were many from the Northwest, Oregon, including those who suffered from the effects of recurring drought in that part of the country. Overall, the greatly stepped up pace of industrialization and the accompanying migration experienced in 1914-1915 brought a large number of unskilled population to the urban centers, but also brought numerous migrants who could not be employed and who were in a state of extreme poverty. All of this was a result of the economic conditions prevailing in the iron state of the Northwest.

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Brazil's overall pattern of internal migration reflects three main currents. The most dominant current runs from the Northeast Region and the Gulf of Brazil (which leads to the States of Rio de Janeiro and São Paulo). Next is the migratory current that runs from the Northeast Region to the frontier and open areas of the Northern and West Central Regions. The third current runs from the States of Rio Grande do Sul and São Paulo into eastern Paraná and Mato Grosso. As described, these three major currents involve the movement of people between regions and states. In addition, however, is the flow within the respective states and regions. This pattern of migration over the years coupled with the high rate of natural increase in population has been part and parcel of the growth and expansion of urban areas and the opening up to development and exploitation of still untouched lands and other resources in the northern and western frontier parts of the country.

Regional Population Distribution

Although Brazil is a country of tremendous size, an estimated 90 percent of the total population is concentrated on only a little more than 35 percent of the nation's total land area located in the three eastern-most regions that border the Atlantic Ocean. These are the Northeast, South Central, and Southern Regions. As shown in Table B3, the area of Brazil totals some 8.4 million square kilometers. With a 1970 population of 94.5 million, the country thus had a density of only 11.2 inhabitants per square

TABLE B3
POPULATION DENSITY BY REGION AND STATE, 1970

Region	Area (sq. km.)	Population (1970)	Density (inhabitants per sq. km.)
North	1,000,000	10,000,000	10.0
North Central	1,000,000	10,000,000	10.0
Central	1,000,000	10,000,000	10.0
South Central	1,000,000	42,700,000	42.7
South	1,000,000	10,000,000	10.0
Total	5,000,000	100,000,000	20.0

Source: Instituto Brasileiro de Geografia e Estatística, *Demografia e Estatística*, 1970, p. 100.

The most populated area, as shown in Table B3, is the South Central Region which with 10.9 percent of the country's total land has 42.7 percent of the national population and a density of 43.9 inhabitants per square kilometer. As a whole, this region is not only the country's leading agricultural producer, but it also is by far the most important industrial area. The five States of Minas Gerais, Espírito Santo, Rio de Janeiro, Guanabara, and Sao Paulo which constitute this region, in total contribute more than 80 percent of Brazil's GDP. Although on the whole the South Central Region is heavily urbanized, in large part as the result of industrialization, its agriculture supports a very substantial rural population. With 27.3 percent of its total population in rural areas, this region in 1970 had 35.4 percent of the entire rural population of Brazil.

The Northeast Region ranks second in population with 20.8 percent of the national total in an area that encompasses 12.8 percent of all the land in Brazil. Although this region has a density of 16.8 inhabitants per square kilometer, its rural population amounts to 58.3 percent of the area's total and is equivalent to 40.1 percent of all the rural people in Brazil. The Northeast Region consists of the States of Ceara, Bahia, Maranhao, Piaui, Rio Grande do Norte, Paraiba, Pernambuco, Alagoas, and Sergipe. This is primarily an agricultural region and its overall economy is the poorest in the country.

The third most heavily populated area is the Southern Region which with only 8.7 percent of the country's territory has 17.6 percent of the total population of Brazil and a density of 39.7 inhabitants per square kilometer. The population of this region is 55.4 percent rural, equivalent to 21.2 percent of Brazil's total rural population. The Southern Region consists of the States of Parana, Santa Catarina, and Rio Grande do Sul. Although the economy of this region is largely agricultural, it also has some industrial development.

The remaining two regions of Brazil are not only the least populated areas of the country but they also constitute two-thirds of the national territory. The West Central Region which consists of the States of Mato Grosso and Goias, has 22.3 percent of the total national land area, but only 4.8 percent of its population and a density of 2.3 inhabitants per square kilometer. In recent years, both the agricultural based economy and the population of

...the opening of Brazil's frontiers to settlement and agricultural production. Particularly since the founding of Brasília as the new national capital in 1960, the growth of these two regions is the Northern Region which, with 14 percent of Brazil's total land, has only 3.8 percent of the country's total population and a density of only 1.0 inhabitant per square kilometer. This region consists of the States of Para, Amapa, Acre, and the territories of Rondonia, Roraima, and Amapa. Standing out as one of the last areas in the world that has resisted full penetration and exploitation by man, the Northern Region is gradually being opened up to settlement, mining and agricultural production with government guidance.

Employment by Sectors

Out of a population totaling 94.5 million in 1970, slightly more than 29.5 million, or 31 percent, constituted the labor force of Brazil. This compares with the 1960 population of 71 million of which some 22.6 million, or nearly 32 percent, were in the labor force. In 1950, Brazil had a population somewhat under 52 million of which little more than 17.1 million, or slightly under 32 percent, were in the country's labor force. As shown in Table B4, by far most of the labor force has been in the agricultural sector although this somewhat declining proportion as other sectors of the economy expanded, particularly industry during the 1960-70 period.

The proportion of the national labor force in agriculture, as shown in Table B4, declined steadily since 1950 with the sharpest drop taking place between 1960 and 1970. The 24.2 percent in the agricultural labor force

in 1970 compares with 55.7 percent in 1960 and 66.2 percent in 1950. During this same span of years, the proportion of the country's labor force in industry reached 17.8 percent in 1970 from 13.1 percent in 1960 and 13.7 percent in 1950. In 1970, 62 percent of the total labor force was engaged in agriculture and industry as compared with 56.8 percent in 1960 and 73.8 percent in 1950. The high percentage of the national labor force in agriculture in good part reflects the high proportion of small farms that prevails and the relatively low level of mechanization and slow spread of technology in that sector. On by far most of the farms in the country, human labor has long been the only or major source of power.

Table B4. - Brazil: Distribution of the labor force by sectors, 1950-70

<u>Sector activity</u>	<u>Percent of labor force</u>		
	<u>1950</u>	<u>1960</u>	<u>1970</u>
Agriculture	59.9	53.7	44.2
Industry	13.7	13.1	17.8
Commerce	5.6	6.7	8.9
Services	9.8	12.1	11.0
Transport and communications	4.1	4.8	4.3
Social activities	2.5	3.1	4.8
Public administration	3.0	2.9	3.9
Other	1.4	3.6	5.1

Source: Fundação Instituto Brasileiro de Geografia e Estatística.

Between 1950 and 1970, the national labor force increased at an annual average rate of 2.7 percent. During this period, while the agriculture labor force increased 0.7 percent per year, the labor force in industry

and a high percentage of growth has. By 1960, the total labor force had an average increase of 2.3 percent per year over the 1950-60 period while the agriculture labor force rose by 1.7 percent annually and the labor force in industry had an annual rate of increase averaging only 2.4 percent.

While the national labor force increased at an average annual rate of 2.8 percent in the years between 1950 and 1960, population growth was at a 3.2 percent rate. During the 1960-70 period the labor force increased at an average annual rate of 2.7 percent while the population growth rate averaged 2.9 percent per year. Thus during these two periods there was an apparent declining participation in the labor force which may be attributed to rising school enrollments and also to the lack of employment opportunities for all that might be employed.

In Brazil underemployment tends to be quite prevalent since unskilled workers are known to enter employment in marginal occupations such as peddling on streets rather than admit they are unemployed. It has been estimated that 15-30 percent of the economically active population actually may be underemployed. In the pattern that prevails, semi-skilled and skilled workers are in short supply while there is an excess of unskilled workers. Government is attempting to correct the imbalance through educational and training programs designed to improve the labor force and enhance its mobility.

Distribution of Income

Rapid growth of the Brazilian economy which was characterized by industrial development and rural-urban migration during the 1960-70 period, was accompanied by a substantial concentration of income and a greater share of the total going into a relatively few hands. According to the results of the 1970 census, all income groups in Brazil experienced absolute increases in real income from 1960 levels, but the share of the total income received by the highest ten percent of all income recipients increased while that of every other decile declined. As shown in Table B5, there also was a wide disparity in the distribution of income among the deciles.

Table B5. - Brazil: Distribution and size of income by deciles, 1960 and 1970

Deciles	Share of total income			Average monthly income		
	1960	1970	Increase	1960	1970	Increase
	percent			(1970 Cr\$)		
	percent			percent		
1st	1.17	1.11	- 5.13	25	32	3.5
2nd	3.32	3.05	-11.64	48	58	1.9
3rd	3.42	2.97	-13.16	71	84	1.7
4th	4.65	3.88	-16.55	98	110	1.4
5th	6.15	4.90	-20.32	127	139	0.9
6th	7.66	5.81	-23.75	158	168	0.6
7th	9.41	7.37	-21.68	195	210	0.7
8th	10.85	9.37	-11.50	225	272	1.9
9th	14.88	14.45	- 1.64	308	411	3.1
10th	39.88	44.79	10.50	615	1,380	3.3
Total	100.00	100.00		308	382	3.2

Source: Carlos Lagoa, "Distribuição de Renda e Desenvolvimento Econômico do Brasil," São de Janeiro, Editorial Expressão e Cultura, 1970.

... 11.70 percent ... 1960 ... 1970 ... 10.50 percent ...

... of 1970 ... those in the top ten percent received an ... average monthly income of Cr \$1,300 in 1970 as compared ... 1960 ... This amounted to an average increase of 5.2 per- ... cent per year from 1960 to 1970. By comparison, the lowest 40 percent ... of the working population (those in the 40 lowest deciles), received an ... 11.01 percent share of the total income in 1960 and this rose to 10.01 per- ... cent in 1970, a decrease of 0.99 percent. The average monthly income of ... Cr \$400 in 1960 and Cr \$450 in 1970, ... a 12.5 percent annual increase of 0.99 percent during 1970.

...and the Northeast Region has become the most
...of the rural sector (about 80 percent) has become more
...with approximately 60 to 70 percent of the urban sector

and income above that level. Of the poorest 40 percent of Brazil's popu-
lation, an estimated two-thirds live in rural areas. Most of these rural
poor are believed to be in the Northeast Region.

With a population placed at nearly 14.7 million by the 1970 census,
the Northeast Region is generally regarded as the poorest in Brazil. Its
per capita income ranks among the lowest in comparison with other countries
in Latin America. This is an area in which large numbers of people have
long been disadvantaged by inadequate health and educational facilities, high
illiteracy, malnutrition, and a general lack of employment and other oppor-
tunities. In 1970, the rural population of the Northeast amounted to 58.2
percent of the region's entire population and 40.1 percent of Brazil's rural
total.

In 1970, the Northeast Region had a labor force totaling close to 8.4
million of which nearly 65 percent were in agriculture. Of all the money
earners in the region, about 70 percent had monetary incomes below the
average legal minimum wage for the region which in 1970 amounted to
Cr 2,000 per month. In 1970 the average income of the
poorest 40 percent of the population was less than Cr 1,000

The agricultural sector in Brazil has been a major contributor to the country's economic growth. It has provided a steady stream of foreign exchange earnings and has been a key factor in the development of the country's infrastructure. The government has implemented various policies to support the agricultural sector, including land reform and investment in rural infrastructure. These efforts have led to a significant increase in agricultural productivity and a reduction in rural poverty.

From an international perspective, Brazil ranks as one of the most important agricultural producers of the world. Its exports of food and beverage crops, mainly, vegetable oils and wines, and animal products provide most of the foreign exchange earnings used to fuel the country's economic development and growth. From the standpoint of its own domestic requirements, Brazil is nearly self-sufficient or more than self-sufficient in agricultural products, except for a few temperate zone commodities, mainly wheat. The position so far achieved by Brazil as an agricultural producer has been due in large part to extension of the land area rather than by increasing productivity to obtain greater yields from the land already in use.

By reason of its vast size and the fact that much of the land already in agriculture is being underutilized, Brazil still has tremendous untapped agricultural development potential. There are, of course, shortcomings in the country's agricultural sector, particularly in the areas of rural infrastructure, technical assistance, and access to credit. However, with continued government support and investment, these shortcomings can be overcome, and Brazil's agricultural sector can continue to play a vital role in the country's economic development.

...without significant improvements in agricultural technology...
 abundance of land on which continued expansion of output can be based.

	1960	1970	% Change
Farms in Brazil	3,333,748	4,900,000	+48

Of the land in Brazil which totals plus or minus 7.1 billion hectares, only 12.7 percent was used in farming and ranching in 1960 and by 1970 this had gone up to 12.9 percent. Altogether, as shown in Table B5, there were somewhat more than 3.3 million farms in Brazil in 1960 and by 1970 this had risen to slightly over 4.9 million, a gain of 48 percent during the 1960-70 period. A high percentage of the farms in the country had less than ten hectares but their proportion has been increasing. Thus, when combined with the larger holdings, the average size of all farms dropped from 75 hectares in 1960 to 59 hectares in 1970. In 1960, nearly 45 percent of the 3,333,748 farms shown in Table B6 were under ten hectares in size and these had only 2.4 percent of all the land in farms. Almost the same percentage of farms were from ten to 100 hectares in size and the land occupied by them represented only 19 percent of 1960 total farm land area. Thus, these two categories of farms in 1960 constituted 88.8 percent of all the farms but they had only 31.4 percent of the land.

...the proportion of farms in the country had less than ten hectares but their proportion has been increasing. Thus, when combined with the larger holdings, the average size of all farms dropped from 75 hectares in 1960 to 59 hectares in 1970. In 1960, nearly 45 percent of the 3,333,748 farms shown in Table B6 were under ten hectares in size and these had only 2.4 percent of all the land in farms. Almost the same percentage of farms were from ten to 100 hectares in size and the land occupied by them represented only 19 percent of 1960 total farm land area. Thus, these two categories of farms in 1960 constituted 88.8 percent of all the farms but they had only 31.4 percent of the land.

Size of Farm (hectares)	1960	1970	Number of Farms	Area (hectares)	% of Total Farms	% of Total Area
Less than 10	1,994,888	2,524,705	5,252	2,111	51.1	3.1
10 - 100	1,481,615	1,888,100	47,308	26,120	39.6	20.5
100 - 1,000	2,282,222	1,438,200	102,200	189,200	24.3	37.2
1,000 - 10,000	40,000	25,110	11,400	29,200	28.5	37.4
10,000 or more	1,207	1,201	28,202	24,420	15.6	11.8
Total	3,799,742	4,932,705	149,810	197,012	100.0	100.0

Source: Based on Brazil census data.

1/ Not declared.

Source: Based on Brazil census data.

Of the 4,932,705 farms shown in Table B6 for 1970, those with less than ten hectares represented 51 percent of the total but they had only 3.1 percent of the total farm land area. Farms from 10 to 100 hectares in size represented 39 percent of the total and they incorporated only 20.5 percent of all the farm land. These two size categories of farms made up 90.4 percent of the total farms in the country but they contained only 23.6 percent of the land in all farms.

Since 1960, the number of farms less than ten hectares in size rose from slightly under 1.9 million to somewhat more than 2.5 million in 1970, or nearly 29 percent. During this same period, the number of farms from

10 to 100 hectares in the number of persons, and the total value of
 million to more than 1.5 million. The increase in the number of farms
 of farms since 1950 is indicative of a wider distribution of land among more
 people. Otherwise, as Table 26 indicates, the concentration of land in the
 different farm size groups has largely remained in prevail. The increase
 in the number of smaller farms is for the most part the result of both govern-
 ment organizing and sponsoring land settlement activities which are opening
 up frontier areas of the country for agricultural production. By far the pre-
 dominating tenure form in Brazil is farm ownership and owner operated land
 holdings.

Steady Rise in Output

Agricultural production in Brazil has increased progressively since
 the mid-1950's, supplying the domestic market more adequately with food
 and fibers which produced an expanding volume of commodities for export.
 Despite adverse climatic conditions which occasionally cut into the output
 of some crops, overall agricultural production has had a recent growth rate
 averaging 5.5 percent per year. This compares with a growth rate averag-
 ing about 4.5 percent per year over the past two decades.

The general course that agricultural output has followed in recent years
 is shown in Table 27. Using 1951-55 as a base of 100, the index of total
 production averaged 107.4 for the 1955-59 period and went for a slight dip
 in 1960, closed the year at a high of 115 for 1961. The index of total agricul-
 tural production was down to 105.5 for 1962 - 63 average of 106.5 to 108 for 1971.

... of ...
 ...
 ...
 ...

Table B7. - Growth Indexes of Total and per capita Agriculture and Food production, 1961-65 base period, 1961-65 average 100 = 1961-65 average 1973
 (1961-65 = 100)

Production Item	Average							
	1961-65	1961	1962	1963	1964	1965	1966	1973
Crops	107.4	113	112	117	120	123	123	120
Total Agriculture	106.8	113	113	119	121	120	123	120
Total Food	114.3	118	120	126	130	128	131	128
Per capita agriculture	110.0	101	100	101	101	103	104	104
Per capita food	105.0	107	108	107	112	111	110	116
Index of population 1961 - 65 pop. = 78,018,000	100.0	111.5	114.7	117.9	121.3	124.5	126.4	132.0

1/ Preliminary.
 Source: Economic Research Service, U.S. Department of Agriculture.

As indicated in Table B7, the biggest improvement was made in food production. As a result, more adequate supplies became available to the country's rapidly increasing population. During the 1961 - 65 base period, Brazil had a population averaging 78,018,000 for those years. From this base of 1961 population, which increased year after year to an index of 132 for 1973, in the same span of time, per capita food production went from the

index of agricultural production in 1973 compared with 1972 reached an index of only 104 for that year.

Domestic Production

The pattern of agricultural production in Brazil is highly diversified with emphasis being placed on expanding output for both domestic and export markets. Considerable attention has been given to expanding the production of staple foods such as beans, manioc, and rice. In the Northeast Region, manioc is especially important in the diets of the poor because of its relatively low price and high carbohydrate content. Other leading foods include potatoes, corn, wheat, bananas, meat, and milk. The production of wheat was vigorously promoted during relatively recent years through the use of subsidies in order to reduce the need for imported supplies. Table B8 shows the production trend of some of the more important agricultural commodities.

As indicated in Table B8, wheat production declined sharply in 1972 from the previous year's record output but in 1973 came close to reaching the earlier high. The 1972 drop was due to rain damaging the crop. With 1973 wheat consumption requirements officially set at 3.55 million tons, the 1972 shortfall had to be offset by greatly increased wheat imports. Also indicated in Table B8 is a steep decline in 1973 coffee production. This was due to the 1972 frost in the State of Parana which cut the 1973 green coffee harvest by 40 percent and also boosted prices.

Commodity	Average				
	1951-52	1952-53	1953	1954	1955
	1,000 metric tons				
Wheat	322	757	2,011	280	1,250
Rice, paddy	8,123	8,038	8,593	7,100	7,000
Corn	10,124	12,711	14,120	12,900	12,000
Beans, dry	1,928	2,305	2,628	2,400	2,585
Millet	21,900	28,143	30,226	31,000	31,500
Potatoes	1,176	1,438	1,530	1,720	1,700
Sugarcane	85,557	78,495	80,350	83,000	82,000
Cotton	490	580	595	582	580
Soybeans	353	906	2,077	3,666	4,800
Castor beans	258	358	362	265	400
Bananas	6,287	8,550	10,100	10,900	11,000
Cocoa beans	128	174	185	158	220
Coffee	1,658	1,059	1,416	1,440	870
Sisal	188	198	210	280	285
Tobacco	162	163	196	191	174
Beef and veal	1,404	1,165	1,825	2,020	2,000
Milk	5,742	7,100	7,416	7,519	7,800

1/ Preliminary.

Source: Economic Research Service, U.S. Department of Agriculture.

The most dramatic rise in production has been in soybeans, as shown in Table B8, with precipitous increases in output setting a new record each year. Thus, in addition to being the world's largest supplier of coffee,

...the value of exports of agricultural products...

In 1973, agricultural exports approximated two-thirds of the nearly US \$6.9 billion value of total merchandise exports from the country. The merchandise exports included many processed agricultural commodities particularly soluble coffee, beef, castor oil, cocoa butter, and orange concentrates. Among others, agriculture provided the four largest earners which consisted of green coffee and soluble coffee, US \$1.34 billion; soybeans and meal, US \$913 million; sugar, US \$553 million; and cotton lint, US \$215 million. Other agricultural exports included chilled and frozen beef and veal, canned beef, castor oil, cocoa beans and cocoa butter, tobacco leaf, bananas, vegetable and fruit juices, peanuts, and sisal. The 1973 value of total merchandise exports represented an increase of more than 59 percent from the US \$3.9 billion for 1972 due primarily to continued strong growth in industrial production and record export prices for coffee, sugar, soybeans, beef, and other commodities.

Government Policy and Program Orientation

Since the end of the 1954 revolution, the Government of Brazil has had three major economic objectives which involved achieving high rates of growth, controlling inflation, and gradually improving the well-being of the rural and urban poor. At the outset, however, the Government had to focus on the need for creating a development climate. It thus, over a period of several years, inaugurated economic stabilization measures

...the Government's ability to launch and carry out successful economic programs. Among the measures taken was the implementation of a system of "automatic correction" which provided for periodic adjustment of key prices and costs (such as wages, rents, utility rates, interest, and others) about in proportion to gains shown in the overall price index. This system has sanctioned a moderate but declining rate of inflation and helped the economy tolerate inflation without undue distortions in relative prices. Extension of this concept to the exchange rate coupled with government programs to encourage expansion and diversification of exports contributed materially to improving the country's balance of payments position and its place in the international trade and finance picture.

Reasonably satisfied by 1968 with the progress made in creating the desired development climate through the various economic stabilization measures and institutional reforms I had instituted, the Government next focused on economic expansion. From the outset, special attention was given to achieving a high rate of growth in the industrial sector. In addition to broadening the economic base of the country, a priority objective was to bring the least developed regions of the country into the modern economy. A particular target was the Northeast Region with its prevailing wide disparity of income and concentration of abject poverty. In following this course, the Government acted in the belief that long-term success in expanding the economy and dealing with the problem of rural and urban

poverty and to stimulate productivity. The Government has set a goal of a high rate of economic growth that would eventually permit the economically marginal population to be absorbed into the modern sector.

Also within the context of policy aimed at achieving a high rate of economic growth, the Government put into effect several regional development programs with stated goals of alleviating poverty, improving gainful employment opportunities, and, in a more limited way, bringing about an improved distribution of income. In addition, social development programs included those in the fields of education, housing, water and sewerage, and health among others. The Northeast Region was the prime target for most of these activities.

Northeast Region Programs

On two different occasions, first in 1958 and again in 1970, severe drought conditions jolted the Government into reshaping its policy towards the Northeast Region. With the vulnerability of the region's economy stressed by the 1958 drought in the face of the widespread poverty that had long existed, the Government in 1959 created the Superintendency for Northeast Development (SUDENE) to coordinate and plan the development in the region. The thrust of action during the 1960's was on heavy investment in infrastructure, principally transport and power, and on development of industry.

Funds for development projects in the region are derived through an elaborate machinery of state-owned banks. The funds are allocated

These fiscal incentives may be viewed as a part of the tax-payer -- in tourism, fishing, reforestation, as well as in agricultural and industrial undertakings. Enterprises receiving such investment incentives are exempt from corporate income tax for from 5 to 20 years, but the amount of the income tax saved must be reinvested through capitalisation.

Between 1963 and 1971, about US \$600 million in incentive funds had been invested. By comparison, in 1971 about US \$184 million were invested in SUDENE's projects. Income tax revenue by 1972 rose approximately 48 percent which made more incentive funds available for the Northeast Region with a beneficial effect on the entire economy of the area.

The SUDENE program and the operation of the investment tax incentive scheme during the 1960's brought into the region substantial financial resources from the national government. Although the overall program funding contributed to the economic growth of the Northeast, the large segment of the population that lived at the subsistence level was not directly affected to any significant extent. Agricultural development remained relatively neglected because of the continued highly skewed pattern of land tenure, lack of credit, inadequacy of extension and research services, and deficiencies in the marketing system and structure. Industrial development did not attain any significant level until toward the end of the 1960's with the result that it could not generate enough employment opportunities in view of the continuing great need. Thus in the separate circumstances of

... and
... ..
... ..

After the severe drought of 1970 with its devastating effects on the Northeast economy, the Government reorganized its Development Office in the region. In addition to SUDENE, it created the Program of North-Northeast Land Redistribution and Agricultural Development (PROTERRA), the Program for the Valley of the São Francisco River (PROVALER), and the Program of National Integration (PNI). This in part was due to recognition by the Government that the basic solution to the extensive agricultural underemployment and poverty of the Northeast was principally in accelerated development of the agricultural sector itself rather than in the growth of the industrial sector of the region. Of the funds generated by the investment tax incentive scheme, 50 percent have been preempted for program operations that were brought into being after the 1970 drought.

PROTERRA came into being in 1971 to finance the land distribution program as well as improvements in agricultural production and infrastructure, and also to accelerate agri-industry development in the Northeast. Among its concerns is the opening of employment opportunities for unskilled labor and creating access to land suitable for agriculture. The land aspect of the PROTERRA program is managed by the National Institute of Colonization and Agrarian Reform (INCRA). Program financing is controlled by the Bank of Brazil and the Bank of the Northeast. It is anticipated that

The first phase of the settlement program is the establishment of a nucleus of settlers near the Transamazonian Highway. The second phase is the establishment of a nucleus of settlers near the Transamazonian Highway. The third phase is the establishment of a nucleus of settlers near the Transamazonian Highway.

The first phase of the settlement program is the establishment of a nucleus of settlers near the Transamazonian Highway. Land parcels available to settlers on the bank of the highway are each at a total price of C\$ 25,000 to be paid back over a 10-year period. For the time being, settlers may clear 20 hectares of their judge land. Under conditions that prevail, these settlers now produce only for their own subsistence or for the two or three small settlement centers. Medium and large agricultural production units are also contemplated, but not necessarily close to the Transamazonian Highway. The future rural development and exploitation of the Amazon region will, of course, require big capital investment, strong leadership, application of technology, and the creation of an infrastructure and provision of basic supporting services which do not yet exist.

The second phase of the settlement program is the establishment of a nucleus of settlers near the Transamazonian Highway. The third phase is the establishment of a nucleus of settlers near the Transamazonian Highway.

The 1970 census of agriculture in the Northeast region of Brazil shows a significant increase in the number of farms. In 1960, the total number of farms was 2.3 million, and by 1970, it had grown to 3.1 million. This represents an increase of 35 percent over the 10-year period. The average size of the farms in the Northeast region was 1.2 hectares in 1960 and 1.1 hectares in 1970. The total area of the farms in the Northeast region was 2.8 million hectares in 1960 and 3.4 million hectares in 1970. The increase in the number of farms was due to the subdivision of large estates into smaller plots. The total area of the farms in the Northeast region was 2.8 million hectares in 1960 and 3.4 million hectares in 1970. The increase in the number of farms was due to the subdivision of large estates into smaller plots.

Although there are many factors to the problem of the Northeast with its deeply rooted social structure, one of these is the great multiplicity of small farms that at best provide little more than a subsistence living for such a large part of that region's total population. In 1970, the Northeast Region had 45 percent of the same 4.8 million farms in the country as compared with 42 percent of the 3.3 million total in 1960. Thus for 1970, the number of farms in the region was up by 27 percent, a gain of nearly 800,000 farms from the 1960 total of 1,497,367 for the area. Of all these Northeast farms in 1960, 52 percent were less than ten hectares in size and they represented over 58 percent of all such farms in Brazil. The extent to which small farms prevail in the Northeast reflects the pressure of increasing population which has resulted in such fragmented land holdings. This is further highlighted by the fact that in the Northeast as a whole, the cultivated area is only 1.2 million hectares, or 1.2 million hectares, out of a total of 3.4 million hectares.

The document discusses the economic situation in the country, focusing on the need for development and the role of the government. It mentions the importance of infrastructure, particularly roads, and the impact of the current economic conditions on the population. The text also touches upon the challenges faced by the government in managing the economy and the need for international assistance. The overall tone is one of concern and a call for action to address the economic issues.

CRITIQUE OF CHECCHI PAPER, "AID INPUTS AND RURAL ECONOMIC DEVELOPMENT IN BRAZIL"

Prepared for Administrator's Evaluative Review Panel, March 4 and 5, 1975, by F. B. Johnson, International Development Officer on the Brazil Desk, AID, from 1959 to 1968.

SUMMARY

In looking at Brazil as a case study in rural development, contrary to the conclusion of the Checchi paper, the author suggests that the systematic, businesslike approach used by AID may well offer one of the best keys to successful development impact on the rural poor without large amounts of U.S.G. staff and dollars. Brazil actually may afford an outstanding example of how small farmers can be brought into the development process through free market profit incentives. Hard data on the phenomena has not yet been collected so the degree of impact on the rural poor cannot yet be evaluated. But in looking at Brazil, it is important to recognize that in the critical period of the 1960's South-Central Brazil is "where the action was" which led to Brazil's urban-rural growth today. The Checchi report does not really deal with the impact of positive development on the rural poor in Brazil because on this issue, it focuses on Northeast Brazil which was not the Central Government's first priority target area. (See Historical Note, below.)

By applying AID's South/Central Brazil methodology of rural development to other countries in the Hemisphere, the number of farms in Latin America producing above the minimum wage level could be raised from one out of four to one out of two ... in a period of five years. 1/

The Checchi paper perpetuates the myth that Brazil's greatest rural poverty problem in recent years lay in the Northeast. Just as the World Bank and other survey teams have done before it, the Checchi report overlooks the fact that in 1960 most of Brazil's rural population lived in the eastern states of South and Central Brazil, not in the Northeast. That is, the vast majority of the people in the country were in the South and Central regions, not in the Northeast. The North...

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To correct the stagnant rural situation the new Government in 1964 launched a major campaign to upgrade the country's agribusiness system for producing and distributing food in the heavily populated South and Central coastal states. In five years Brazil quadrupled the number of national agriculture extension offices of 1,000 units, with comparable increases in trained personnel. By 1969 the country had twice as many extension offices as ten other Latin American countries combined. Furthermore USAID input was primarily advice rather than large sums of money. The Government of Brazil carried the financial load for these services.

In addition the Government embraced and vigorously pursued key policies to stimulate the production and distribution of adequate and diversified foods among the bulk of the country's people who lived in South/Central Brazil. 3/ These initiatives were targeted at the urban poor in Rio, Sao Paulo and elsewhere as well as at the rural poor.

As the Checchi paper reports, by modernizing and investing heavily in the agriculture sector, Brazil increased per capita food production from the 1951-65 base period index of 100 to a new level of 145 by 1973. As Checchi further reports, Brazil by that year was feeding its people better even though the population had grown from 78 million to over 100 million.

Thus while Brazil was going into high gear to increase food production and attack rural problems in well-settled South/Central Brazil, the Checchi paper leaves the reader in a quandary as to what farmers were benefiting from the new

prosperity. Checchi does not report levels of farm income. From other sources it is known that land planted to coffee shrunk from 8.4 million to 6.2 million acres, while simultaneously land in the area planted to soybeans increased from 1 to 3.8 million acres, land planted to wheat increased from 1.8 to 5.5 million acres, and impressive increases in land planted to corn, dry beans and rice also occurred. 4/ Accordingly, it is difficult to understand the Checchi statement (p. 42) that "the position so far achieved by Brazil as an agricultural producer has been due in large part to extension of the land area rather than by increasing productivity to obtain greater yields from the land already in use." (An IBRD conclusion to this effect in a previous report was unsubstantiated.)

From this record, South/Central Brazil can be considered a vast experimental laboratory for agricultural modernization where small as well as well as large farmers could and did take advantage of new fertilizer supplies, credit sources, improved seed, assured markets and radio market news systems. It must be remembered that three quarters of all farms in Brazil are 50 hectares or less and of these, 80 percent are owned by their operators. Considering all farms, 87 percent are owner operated 5/ In Parana, one of the South's typical agriculture states, farms are mostly small or medium-size and owners have shared in profits from a mixture of commodities including coffee, soybeans, corn and oilseed. 6/

Checchi, on the other hand, chooses to examine the status of the rural poor in the Northeast, a region which resisted adopting the Central government's methodology for modernizing during the 1960's. The Checchi paper reports that in this region the systematic effort to change the life of most rural people through national policies and incentives did not actually commence until the 1970's. This point is noteworthy because it was in 1970 that the Central Government moved in dramatically to take command of Northeast development policy and programs. In effect, the Central Government decided to bring the full force and expertise of the

national government to bear on development in the sub-tropical region. In doing so it displaced the previous near-monopoly control exercised by state governors and SUPRAC, the near autonomous regional development authority which had operated with national government funds during the 1960's.

The time had come for the Central Government to apply in the Northeast the successful approaches and solutions to rural development and rural poverty which it had been perfecting in the South during the 1960's -- with U.S. advice and assistance. There is no doubt but that large farmers in the South benefitted immensely from the new look. However, there were incentives for these same farmers to sell out to small farmers in favor of more lucrative ventures in cities and industrial areas. Perhaps large landholders in the Northeast will do likewise.

A disturbing question remains. How many of the small farmers in South/Central Brazil have improved their situation or found jobs and incomes in newly prospering market towns where people have been flocking? The answer is not found in the Checchi paper. Development journals and the press today rarely ask about how these hundreds of thousands, even millions, of rural people have been climbing out of poverty in the South. They never acknowledged or reported the widespread poverty in that vast region of Brazil in the first place.

As of late 1973, neither Brazil nor its U.S. development partner had undertaken or analyzed extensive household surveys or other intensive micro-studies to research the process. Consequently, the degree of change in earnings of farm units benefitting from the new rural prosperity is not known for large parts of the country affected. Even today, statisticians report living standards in rural areas in terms of wage levels paid hired hands rather than in terms of production and income levels of farm units. (Prosperity of U.S. pioneers could not have been accurately measured by an accounting of the wages paid farm hands or cowboys).

This practice persists despite the fact that most Brazilian farms are small owner operated units and may not have any or much hired labor. The accounting error is compounded where the productivity of wives and children increases along with productivity of male farmers, but is not counted in the national product. Production increases from one farm to another could be expected to vary considerably. It would be helpful if a report were commissioned to fill this critical gap in reporting. 7/

The Checchi report thus analyzes the status of the rural poor in the country's Northeast where progress is just beginning to occur rather than in the South where smaller farmers began to improve their holdings during the mid' 1960's. The report evaluates the static situation in the North rather than the dynamic situation in the South.

What the Brazilians did to make the record they did in South/Central Brazil would seem to warrant the studied attention of developers. The Brazilian model for creating rural prosperity through large-scale farmer participation offers a case study for developers in other countries who are interested in:

- a. Improving the diets of large segments of the people in city and countryside.
- b. Engaging large numbers of farm families in the national market economy, and
- c. Increasing the country's capability to acquire foreign exchange for purchasing technology and other means of production from abroad.

- 6 -

To the United States the price tag for assisting a country to produce these results should be quite attractive. U.S. technical assistance to Brazil for agriculture in the five years 1964 through 1968 averaged \$7.5 million a year. During that period total U.S. financial assistance for agriculture, largely in the form of PL 480 counterpart from wheat sales, averaged \$20 million to \$25 million. That was a relatively small part of the total U.S. assistance provided Brazil during those five years, but it was joined by a very major Brazilian effort to produce these results for the period:

- .. Raised the agriculture growth rate from about 3 percent per year (a common level in Latin America) to 7 to 8 percent per year with the increase coming largely in the basic food crops and livestock products;

- .. Reduced excessive production of surplus coffee, largely because the Central Government resisted pressures to let coffee prices rise as rapidly as other crops;

- .. Increased loans to farms from an annual amount of \$356 million in 1963 to over \$1 billion in 1968;

- .. Increased the number of loans to farmers from 407,000 in 1963 to 1.5 million in 1968. (More and more these loans were going to the small and medium-size farm which produced mainly the basic food and livestock products previously in short supply. Many small farmers were getting commercial credit for the first time. Previously only about 1 million of the then 3.8 million farms countrywide were producing a value of product exceeding the minimum wage.)

- .. Made loans to the Bank for Cooperatives grow four-fold in real value to reach 800 cooperatives with membership of over one half million.

- .. Expanded the country's use of fertilizer, an indicator of modernization at a rate of 20 to 40 percent a year -- though its use had stagnated and even declined during the late 1950's and early 1960's;

- 7 -

.. Expanded exports of nontraditional agricultural commodities by 50 to 75 percent a year (i.e., \$200-\$300 million, enough to account for about 15 to 20 percent of total exports and to bring a near balance between export earnings and total foreign exchange needs for imports of capital and consumer goods and supplies and debt servicing.

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Brazilian Results Compared with Other International Assistance

These kinds of results were especially significant coming in a country which made up almost one-half the population and area of South America. By 1967 Brazilian Government agencies and private banks were contributing over \$500 million a year to rural credit funds. This level compared favorably with total 1967 World Bank loans for agriculture (worldwide) of less than \$150 million, and with the FY 1969 AID appropriation for Latin America of less than \$350 million. (The Brazilian accounting did not include the equity contributions of farmers and cooperatives.)

This local mobilization of Brazilian resources in the 1960's and the \$200 to \$300 million per year increase in exports of nontraditional export commodities are the kinds of gains which substitute trade for aid and avoid future serious debt servicing problems.

An Historical Note: South Brazil as Priority Area for Food Production in the 1960's

In 1964 Brazil's new Central Government concentrated national instruments of analysis, policy, finance and action on modernizing agriculture in the South and Central states. The U.S. AID Mission in Rio concurred and collaborated in this course of action for several compelling reasons.

First, the bulk of the rural population lived there (most of them poor.) Second, the area could be stimulated to increase agricultural production to meet urgent needs of the people and the nation's failing industries. Third, and quite importantly, coffee was produced in the South, not the Northeast. It accounted for the lion's share of the country's foreign exchange earnings. Political fortunes rose or fell in response to coffee fortunes. Politics of the country had been skewed unduly by this one

product, such as cotton had skewed politics in the U.S. South prior to the civil war. It was necessary that the country diversify agricultural production to ease serious tensions resulting from the South's dependency on this single crop. Furthermore, international creditors had announced that Brazil was bankrupt and were refusing the country further loans for development. At the same time the Brazilian press and ambitious politicians were charging that the United States was an imperialist giant that blocked the country from taking its rightful place in the global economy among world powers.

If the economic and political conditions attending coffee were not to lead to outright civil war in Brazil, domestic interests depending upon coffee earnings would have to find alternative sources of income. It was imperative that coffee farmers, large and small, have the chance to realize profit from other crops -- and quickly. It was urgent that the country develop a broader base of agricultural products for trade in world markets and for food and industrial supplies at home.

Accordingly, the Brazilian Government agreed to make very substantial changes in export, credit, price and other national policies affecting agriculture and stimulating private initiative and private credit. It also agreed to deliver inputs to farmers and assure markets for their products. U.S. advice and economic assistance were important factors in bringing about the fundamental changes in Brazil.

Goals Within Reach for the Western Hemisphere

The U.S. strategist and principal advisor who helped Brazil make the agri-business breakthrough in the 1960's concludes that agricultural production in the other countries of the Hemisphere can be quickly raised to five to six percent per year in a period of five years. The number of farms in Latin America producing above the minimum wage level could be raised from one in four to one in two in this time. 9/

Secondary effects of such development would do much to generate new commerce and industry which serve agriculture. The importance of creation of such a strong rural base is illustrated by a study which indicates that 63 to 65 percent of the entire economy of the State of California would disappear if farms in the state ceased to produce for the market. 10/

The views in this paper represent those of the author and not necessarily those of any U.S. Government agency.

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- 1/ Source: 1970.
- 2/ Maria Helena Testimony insert for Senate Appropriations Committee, May 17, 1972.
- 3/ Source: 1970.
- 4/ See paper by Roger P. Nisgkind, "Brazil -- The Measurement of Brazilian Incomes and Income Distribution and Implications for Development Policy," for suggested mechanisms for improving measurement of income trends and for evaluating the welfare impact of government policies and programs "such that policy formulation would be facilitated and the effectiveness of policy implementation could be monitored."
- 5/ Hestberg and Johnson, pp. 611.
- 6/ Ibid.
- 7/ Brandt, 1971, "Agriculture: A Growth Industry. Downgrading the farmer is the rush to industrialize developing countries is a flagrant error. 'Multi-national agribusiness' in a free and profit-oriented market is a sounder course." Stanford Today, Spring 1971.