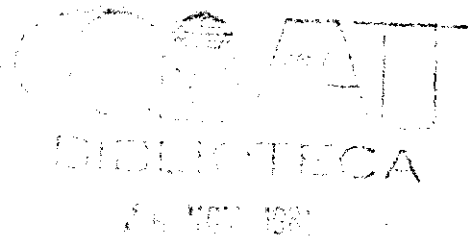


LATIN AMERICA: TREND HIGHLIGHTS ON
BEANS, BEEF, PORK, CASSAVA, RICE AND CORN ¹



Internal Document Econ 1.2

December, 1976
Centro Internacional de Agricultura Tropical
Cali, Colombia



^{1/} Prepared by: G.A. Nores, L. Rivas, R. Posada, C. Alvarez
and R.O. Diaz.

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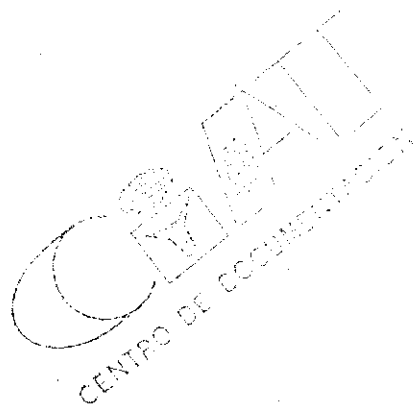
PREFACE

This brief summary has been prepared to provide the CIAT Board Members and Management with some perspective on the market situation of CIAT's commodities. The first part of this report, which includes information that could serve as a frame of reference, is planned to be updated once every two years. The second part, directly concerning CIAT's commodities, will be updated twice a year.

In preparing this document, considerable use has been made of a previous report by Scobie and Valdés (15).

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I. FRAME OF REFERENCE

A. Relative Importance of Agriculture in Latin America

Production

1.01 Agricultural gross domestic product (GDP) as percentage of total GDP varies among Latin American countries from 7 percent (Venezuela) to 48 percent (Haiti) reflecting different degrees of development of non-agricultural sectors and the importance of agriculture throughout the region (Table 1, Column 1).

Rural Income

1.02 Average per capita income in the agricultural sector is significantly lower than total per capita income in all countries, except Uruguay (Table 1, Column 2). Due to high unemployment rates in the agricultural sector, the gap between rural and urban income has persisted and even widened during the past 15 years. This was so, "despite a heavy drain of rural population, most of which emigrates to the great metropolises. Altogether it is estimated that rural-urban migration represented a movement of around 18 million inhabitants between 1961 and 1970" (ECLA-FAO, 8).

1.03 The rural population, though still representing a large proportion of total population, percentage-wise is declining consistently through time (see Table 2). However, in nearly all Latin America countries the agricultural labor force continues to grow, with the exception of Argentina and Uruguay which show a decline, while Chile and Venezuela show a halt.

Trade

1.04 In terms of value, world exports have increased over ten times during the last 25 years (Table 3, Column 1), while Latin America exports have increased about four times, implying a consistent fall in the region's share of world exports during the period (Table 3, Column 3). Foreign trade has thus represented a rather limited source of growth for Latin America.

The region's share of world agricultural exports has also fallen consistently during the last quarter of a century (Table 3, Column 6). This reflects a general inability to generate surpluses over domestic consumption as well as the existence of tariff and non-tariff barriers to world-wide trade of agricultural products grown in the region.

1.05 Agricultural exports are an important source of exchange earnings in most Latin American countries (Table 1, Column 4). In general, increases in agricultural production for domestic consumption and export (or import substitution) are considered at the policy level as the solution, not only to balance of trade deficits, but to inflation, food shortages, unemployment, and growth.

B. Use and Distribution of the Land

1.06 Latin America has a tremendous potential for agricultural production. The area being cultivated with annual and permanent crops amounts to 6 percent of total farm land. From an agronomic standpoint, this percentage can be increased about six times (see Table 4). However, given present problems of infrastructure, the location of the population, actual prices and technology, such expansion might not be economic at present; though it could be in the future. The region's proportion of the land suitable for cultivation (35 percent) is even larger

than in the U.S.A. (20 percent).

1.07 The average size of farms in Latin America is about one half as large as the average in the U.S. (see Table 5). Moreover, the average area of cultivated land per farm is about one-tenth of that found in the U.S. (63 vs. 6 has). Even ignoring unevenness in the distribution of the land, such differences in the average size of farms reflect the existence of different farm structures. When distribution of the land is taken into account, even larger differences in structure appear. Figure 1 is included to illustrate this case. The further away a curve from the diagonal the more uneven is distribution of the land¹. All Latin American countries except Haiti, would fall further away from the diagonal than the U.S.; reflecting, in many cases, the existence of dual structures of the minifundia-latifundia type.

C. Population and Nutrition

Population Growth

1.08 The population of Latin America, representing 8 percent of the world's population, is growing at a rate of 2.8 percent per annum, somewhat faster than in other less developed countries (LDC) of the world (Table 6). Within Latin America, 10 out of 24 countries surpass the 3 percent per year rate (Mexico, Dominican Republic, Honduras, Ecuador, Venezuela, El Salvador, Nicaragua, Panamá, Colombia and Perú). These 10 countries account for 43 percent of the population of the area.

If the growth rate of 2.8 is maintained for the area as a whole, population would double in 25 years. If the

^{1/} A word of warning is in order when interpreting this kind of graph since unevenness may be due to a number of reasons such as quality and classes of land, defective ownership, infrastructure and location of population.

average growth rate happens to fall to 2.3 per year, population would double in 30 years.

Per Capita Food Production

1.09 In all regions of Latin America, food production has stagnated since 1970, resulting in declining output per capita. This decrease contrasts with the improvement in food production per capita in all regions, except the Caribbean, during the 1960's (see Table 7). The growth in total agricultural output per capita was even slower, indicating that declining food output per capita has not been associated with major increases in non-food agricultural output. Excluding the four leading producers (Brazil, Mexico, Argentina and Colombia), per capita food production of the remaining 20 countries has fallen even more sharply (see last row of Table 7).

Food Consumption and Nutrition

1.10 (*Calories*) Table 8 is included to provide a broad perspective of the severity of the nutritional problem in Latin America. According to FAO (10), per capita food supplies should, in the case of developing countries in general, exceed minimum energy requirements by at least 10 percent in order to compensate for uneven food distribution and consumption. Only ten of the 24 countries considered, with 68 percent of the population of Latin America, meet energy requirements using this criteria.

1.11 (*Proteins*) Average per capita protein supplies appear to be adequate for most countries (except Bolivia, Ecuador, El Salvador and Haiti). Since there is no general agreement about protein requirements, no standard is presented for comparison. However, in the case of proteins, the argument of uneven distribution of income becomes stronger than in the case of calories (for example, compare third and fifth rows of Table 9). Also, whenever calorie deficits exist, part of the protein con-

sumption might be used as an energy source, and hence net availability of protein might be inadequate.

1.12 Consumption of calories and protein varies considerably among countries and even within each country. A survey conducted in Brazil in the early 1960's may serve as an example. A daily consumption of 1,407 calories among the lowest income bracket in the Northeast was reported, while the highest income bracket in the South had a daily consumption of 4,023 calories (11). Although less dramatic, the case of Cali, Colombia may also serve as an example (see Table 9).

Information available on caloric and protein intake by sub-regions and socioeconomic strata is nonsystematic, or does not have an acceptable coverage. However, there is no doubt that many people are malnourished (between 10 and 15 percent) and that between 25 to 40 percent of the population are below safety levels of caloric and protein intake. Figure 2 is included to illustrate such deficits in the case of cereals.

1.13 Table 10 shows the importance of nutrition-related child mortality. Rates in specific locations of Canada and U.S. may be used for comparison. Since samples are rather location specific, mortality rates cannot be generalized at the country level. However, these high nutritionally related death rates are another reflection of the food problem in Latin America.

D. Fertilizer Situation and Forecast

Production and Consumption

1.14 Latin America, with 8 percent of the world population, consumes 5.7 percent of the fertilizer produced in the world (1) and has to import nearly 60 percent of its needs. Two countries --Brazil and Mexico-- account for over one-half of the region's fertilizer production and consumption, while five

countries --including in addition, Colombia, Chile and Cuba-- account for three-fourths of the total, reflecting different degrees of use of this input among countries (see Table 11).

The region as a whole produces roughly 55, 60 and 2 percent, respectively, of the N, P, and K it consumes. By comparison, other developing market economies produce roughly 60, 70 and 30 percent, respectively.

1.15 Regional consumption of fertilizer has increased 80 percent in the last five years (Tables 11 and 12), while it is expected to increase by only 65 percent between 1974/75 and 1980/81 (six years) ². Nitrogen consumption is forecasted to increase at an annual growth rate of 8.6 percent, while phosphates and potash consumption would increase at 6.7 and 10.4, respectively.

On the basis of information for plants under construction, contracted for and planned, nitrogen and phosphate production is forecasted to increase at higher rates than consumption (Table 12). Hence, imports of these nutrients would fall somewhat by 1980 in relation to total consumption. That would not be the case of potash, of which import requirements are expected to increase substantially.

Prices

1.16 After the dramatic increase of 1974, prices of N and P decreased sharply in 1975, and in early 1976 reached levels comparable in real terms to those of the mid-1960's (Figure 3). On the basis of latest projections, continuing improvement of the world fertilizer supply-demand balance can be expected through the late 1970's (Figure 4). Hence, prices of

^{2/} Consumption forecasts are of "effective demand" taking into account the absorptive capacity of both farmers and countries as well as price forecasts. Source: FAO/UNIDO/World Bank Working Group on Fertilizers; "Long Term Fertilizer Supply/Demand position and Elements of a World Fertilizer Policy", FAO, AGS: F/75-7, May 1975.

fertilizer (particularly of N) are not expected to rise in real terms (Table 13).

1.17 Phosphates, however, are a question mark in the long run, the reason being that two countries, Morocco and Spanish Sahara (see Table 14), hold 66 percent of world's phosphate rock resource (economically exploitable at today's technology and prices) and 75 percent of total known resources (including reserves recoverable at higher prices and/or with improved technology). Even the U.S., shortly after the end of this century, might cease to be self-sufficient (Figure 5). Given the lack of effective multilateral agreements for beef trade, such uncertainty about phosphate prices cast dark shadows on phosphate-based legumes as a long-run strategy for development of the beef industry.

Relative Prices

1.18 Input-output price ratios, as well as their behavior through time, vary from country to country. This can be seen in Table 15, where the urea-rice price ratio is presented. Between 1970 and 1974 the price of urea vs. rice increased four-fold in Chile, while it actually fell in Venezuela. In the latter country (where fertilizer is heavily subsidized), a ton of rice would buy nearly eight times more urea than in Chile and 22 percent more than in U.S. (1974 prices).

1.19 The case of beef was even more dramatic since prices fell drastically as result of the world beef crisis and the import ban adopted by the European Common Market. This occurred at the same time that fertilizer prices rose sharply. In 1972 a ton of beef (FOB, carcass weight) in Argentina would buy over 10 tons of triple superphosphate, but in late 1974, it would barely buy 2.5 tons; in early 1976, the comparable figure was 5 tons.

II. CIAT's COMMODITIES

A. Production

2.01 Production of beef, cassava, beans and rice has increased only slightly in the last 10 years (see Figure 6). In fact, in 1974, the output of all commodities (except rice) was equal to or less than the production in 1970. The growth in output of all commodities (except beef and pork) was much slower from 1967 to 1974 than in the period 1960-67 (Table 17). Identifying the causes of this slow-down would help establish the relative influences of weather, domestic policies, and technological change.

2.02 (Beef) Details of the growth of cattle numbers and output between 1960 and 1975 are given in Table 18. While growth of output in Latin America appears to have been highest during the second half of the 1960's (Table 18, last row), real growth, measured by increase in herd size, slackened during that period. In the region as a whole, growth has been higher in the 1970's than it was in the 1960's. This trend varies from country to country and was affected --mostly in the River Plate area-- by the recent world beef crisis.

Table 19 illustrates the differences among Latin American countries in terms of livestock inventories and output. As a region, Latin America has 30 percent more cattle per inhabitant than the U.S. However, the relative density of cattle varies considerably among countries, from 0.14 head per person in some Caribbean countries to 3.6 head per person in Uruguay. In spite of the high relative cattle density, with the exception of the River Plate area (temperate climate), per capita beef output varies from one-tenth to one-half that of the United States. Extraction rates, measured as output per head in stock,

is included to illustrate the efficiency gap among countries (Table 19, last column).

2.03 (*Pork*) While Latin America has twice as many beef cattle than the U.S., it has about the same number of hogs. The number of hogs per inhabitant is 25 percent smaller than in the U.S. (see Table 20). Due to a number of factors, such as breeds, and quality of animals, health, feeding and management practices, production efficiency is rather low. Extraction rate, measured as output per hog, is only 26 kilograms per year, a figure substantially lower than the 102 kilograms obtained in the U.S. (Table 20, last column). Though the efficiency gap is still rather wide, efficiency of production appears to be improving through time, particularly in Brazil, Venezuela and Colombia (see Table 21).

Pork consumption, although varying among countries, is also low. Apparent consumption for the region as a whole is about six kilograms per capita per annum, barely one-fifth of that in the U.S. Brazil, Mexico and Venezuela are among the few countries which have increased per capita consumption of pork during the last 15 years (see Table 22).

2.04 (*Cassava*) Total as well as per capita production of cassava increased consistently during the 1960's but decreased during the first half of the 1970's (Table 23, last row). This was due to the influence of Brazil, where per capita production fell nearly 10 percent from 1970 to 1974. This latter country accounts for more than 85 percent of total production in Latin America. Although production statistics are not reliable, Table 23 is included to illustrate the variability of per capita production of cassava throughout Latin America.

2.05 (*Beans*) Production of beans increased at a high rate during the period 1960-67; but since then, it has been practically stagnant (Table 17 and Figure 6). Per capita production of beans in Latin America has shown a declining trend during the

last 10 years (Table 24, last row). Brazil and Mexico account for more than 80 percent of bean production in the region.

2.06 (Rice) Latin American rice production has increased at an annual rate of 4.8 percent during the period 1960-67, but at a slower (2.4 percent) rate during the 1967-74 period (Table 17). Consequently, per capita rice production in the region has declined slightly during the last 10 years (Table 25, last row). This was due to the decline in per capita production of Brazil, Perú, Argentina and Uruguay, contrasting with increases in most other countries, particularly Colombia, Mexico, Venezuela, Guyana, Ecuador and Costa Rica. Currently, Brazil accounts for 55 percent of the region's rice production, while in the early 1960's it accounted for nearly 70 percent.

2.07 (Corn) Production of corn increased at a high rate (6.6 percent annually) during the period 1960-67, but at a much lower rate (1.5 percent) during the period 1967-74 (Table 17 and Figure 6). Consequently, per capita corn production in the region has declined nearly 10 percent between 1970 and 1974 (see Table 26). This was due to the decline in per capita production of most countries, except in Brazil, Argentina, Chile and Uruguay. The larger declines were observed in Mexico and Central America. Substitution for sorghum might partially explain such reductions in corn production.

B. Yields

2.08 Bean yields have been constant at around 600 kg/ha for the last 20 years in Latin America (see Figure 7).

2.09 Rice yields were constant at around 1.7 ton/ha until 1969 and then jumped to almost 2 ton/ha by 1974. Approximately half of Latin America's rice comes from the upland sector of Brazil where yields are low and constant. Hence, the rise in

the total Latin American yield from 1.7 to 2.0 ton/ha is a significant change and indicates much larger increases in irrigated areas. Colombian irrigated yields, for example, rose from about 3.0 to 5.4 ton/ha in the last 10 years, due to the introduction of new varieties developed by ICA³ and CIAT.

2.10 By 1971 cassava yields have risen consistently to 14.0 ton/ha, falling in 1973 to the lowest level in 20 years. Such a fall was apparently due to poor seasonal conditions in Brazil.

2.11 The region's average corn yield increased 25 percent from 1965 to 1970, reaching 1.5 ton/ha. Since 1970, average yield has been stagnant, fluctuating between 1.4 and 1.5 ton/ha (Figure 7).

2.12 As shown in Table 27, much of the expansion in the output of rice, beans, cassava and corn between 1960-64 and 1970-74 came from area expansion rather than yields. This reflects Latin America's extensive land endowment. However, during this period and for the region as a whole, increments in yields have been a rather important source of increments in production in the case of beans and corn.

C. Volume of Trade⁴

2.13 Latin America is a net importer of rice and beans; the volume of imports while fluctuating has not changed substantially in the last 15 years (Table 28). In both cases, Latin American imports are a very small proportion of consumption, as well as of world trade of these commodities.

^{3/} Instituto Colombiano Agropecuario.

^{4/} No data is available for cassava and its by products regarding trade from or within Latin America.

2.14 Beef is a major export commodity, and Latin America accounts for a significant part of world trade. However, both absolutely, and relative to world trade, Latin American beef exports have declined drastically. Rising internal demand, together with a large decline in beef imports into the EEC, the United States and Japan, resulted in reduced exports in 1974 and further reductions in 1975, although a partial recovery was noted in 1976. The EEC, the United States and Japan account for about 75 percent of world beef trade, and large fluctuations in their import demands, particularly in those of the EEC, have serious repercussions on the development of the beef sector in Latin America.

2.15 Latin American net exports of corn increased nearly 75 percent from 1960 to 1970. Thereafter, stagnation of regional production and yields, and the increase in the region's needs, implied a reduction of net exports (Table 28). This was mainly due to the reduction of production in Mexico and Central America (Table 29). Such reduction has strengthened the declining trend in Latin America's share of the world corn market.

2.16 Details of the trade in beans, beef and rice by country in Latin America for 1965 and 1974 are given in Table 30. While South America as a region is a net exporter of beans and rice, Central America and the Caribbean are net importers, Cuba being by far the largest importer of these commodities.

D. Export Prices

2.17 Export prices received by Latin America for beef, beans and rice are shown in Figure 8. In the beginning of the 1970's, sharp rises in export prices of all commodities were experienced. To a large extent, domestic markets were insulated from these price increases by trade barriers and price controls; consequently, these rising world prices have not generally

stimulated domestic production. As noted earlier, there has been virtually no growth in output since 1970.

2.18 Table 13 presents one set of price forecasts for rice and beef, together with nitrogen and phosphate. By 1985, prices of rice are predicted to decline to levels of the early 1970's, while beef prices are to continue to rise. Fertilizer prices are predicted to decline compared to 1974, although not to levels of the 1960's, when much of the new fertilizer-intensive technology was developed (see numerals 1.16 through 1.19 of this report).

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- (14) Argentina, Bolsa de Cereales, Anuarios Estadísticos 1974-1976

- (15) Scobie, G. M. and A. Valdés, Notes on the Production Consumption, Trade and Prices of CIAT's Commodities (beans, beef, cassava, rice and swine), CIAT, April 1976.

ANNEX 1

TABLES

TABLE 1. LATIN AMERICA: RELATIVE SITUATION OF AGRICULTURE^a

Country	Agricultural GDP		Income	External Trades		
	Agricultural GDP over Total	Agricultural GDP per Inhabitant Over Total GDP per Inhabitant	Average Agricultural Income Over Total Average Income	Agricultural Exports Over Total Exports	Agricultural Imports Over Total Imports	Agricultural Imports over Agricultural Exports
----- Percentage -----						
Argentina	12	82	85	84	7	9
Barbados	12	56	56	61	24	145
Bolivia	21	37	39	9	20	177
Brazil	18	43	46	67	9	18
Colombia	29	67	70	81	10	14
Costa Rica	22	49	55	75	13	26
Cuba	..	..	..	..	..	..
Chile	9	38	40	3	19	567
Ecuador	26	49	51	89	9	12
El Salvador	27	49	53	64	12	21
Guatemala	28	46	47	60	7	13
Guyana	20	63	63	..	..	..
Haití	48	65	65	..	..	..
Honduras	35	50	52	79	10	13
Jamaica	9	37	37	..	..	..
Mexico	11	25	28	35	8	33
Nicaragua	28	51	54	75	10	16
Panamá	18	44	44	64	11	56
Paraguay	34	64	67	67	8	13
Perú	16	37	40	18	18	84
Dominican Rep.	22	34	35	84	12	17
Surinam	..	..	..	5	17	303
Trinidad & Tobago	7	43	43	8	10	159
Uruguay	20	123	126	..	..	25
Venezuela	7	28	29	1	11	615

SOURCE: ECLA, CELADE, FAO. (8)

^{a/} The data refer to the year 1972, except for external trade where they refer to 1971, with the exception of Colombia (1970), Chile (1969), Uruguay (1972) and Surinam (1970).

TABLE 2. RURAL POPULATIONS, PERCENTAGE OF TOTAL, 1950-70

Country	1950	1960	1970
	----- Percent -----		
U.S.A.	36.0	30.1	26.5
Mexico	57.4	49.3	42.3
Caribbean	82.6	77.9	68.6
Central America	68.9	67.5	57.3
South America	56.9	46.8	38.4
Venezuela	46.3	32.6	21.6
Andean 5	59.2	48.7	40.1
Brazil	63.9	53.7	44.1
River Plate	38.9	28.2	22.8
Latin America	58.5	49.6	41.6
Latin America (2)	74.4	67.1	58.6

SOURCE: USDA (1); Rural percentages based upon population estimates for nearest census. America en Cifras, Situación Demográfica. OEA, Washington, D.C. 1960-1974.

(2) SOURCE (9): Estimates by Social Affairs Division. ECLA-UN

TABLE 3. LATIN AMERICA: SHARE OF WORLD AND AGRICULTURAL TRADE, 1950-75

Period	Total Exports			Agricultural Exports			Share of Agriculture on Total trade in:	
	World (Billion US\$)	Latin America (Billion US\$)	Latin America Share (%)	World (Billion US\$)	Latin America (Billion US\$)	Latin America Share (%)	World (%)	Latin America (%)
1950	61.20	6.80	11.1	20.60	4.31	20.9	33.7	63.4
1951-55 Avg.	84.82	7.66	9.0	27.50	4.82	17.5	32.4	62.9
1956-60 Avg.	113.32	8.47	7.5	31.62	4.95	15.6	27.9	58.4
1961-65 Avg.	157.52	9.85	6.3	38.68	5.61	14.5	24.5	56.9
1966-70 Avg.	248.13	14.07	5.7	47.70	6.89	14.4	19.2	49.0
1971-75 Avg.	616.99	29.47	4.8	95.83	12.38	12.9	15.5	42.0

SOURCE: USDA (1).

TABLE 4. PERCENTAGE DISTRIBUTION OF PRESENT AND POTENTIAL LAND USE

Country and Regions	Present Use				Potential Use				
	Cultivat- ed (Crops)	Pasture	Forest	Sub- Total	Crop Land ¹	Pasture and Forest ²	Sub- Total	Non- ³ Arable	Total
----- percentage -----									
U.S.A.	16	30	32	78	20	58	78	22	100
Mexico	14	36	17	67	22	45	67	33	100
Central America	9	17	50	76	42	34	76	24	100
Venezuela	6	15	50	71	51	20	71	29	100
Andean	4	19	41	64	34	30	64	36	100
Brazil	4	12	63	79	40	39	79	21	100
River Plate	9	51	25	85	26	59	85	15	100
South America	5	22	49	76	37	39	76	24	100
Latin America	6	23	46	75	35	40	75	25	100

SOURCE: USDA (1).

¹/ Includes land with restraint to land use (classes I, II, III, and IV).

²/ Includes land with strong restraints to its use as agricultural land (classes V, VI and VII).

³/ Class VIII.

TABLE 5. AVERAGE SIZE OF HOLDINGS, AVERAGE AREA OF CULTIVATED LAND PER HOLDER, AND AVERAGE AREA OF CULTIVATED LAND PER INHABITANT

Country and Regions	Average Size of Holding	Average Area of Cultivated Land Per Holder ¹	Average Area of Cultivated Land Per Inhabitant
	----- (Ha) -----		
North America ⁴	209.0	69.1	0.8
U.S.A.	230.7	63.3 ²	0.7
Canada	187.5	76.0	1.3
Latin America	112.1	6.0 ³	0.3
Mexico ⁵	54.3	10.0	0.2
Central America ⁴	25.2	3.5	0.2
Costa Rica	40.5	5.9	0.2
El Salvador	5.4	2.8 ²	0.2
Guatemala	8.3	2.5	0.2
Honduras	13.6	3.0	0.2
Nicaragua	47.7	5.3	0.3
Panama	22.2	3.3	0.2
Caribbean ⁴	9.5	n.a.	...
Dominican Republic	10.7	5.2	0.3
Haiti	1.4	n.a.	...
Jamaica	3.2	n.a.	...
Trinidad & Tobago	6.0	n.a.	...
South America ⁴	126.0	5.9	0.4
Venezuela	82.4	5.3	0.2
Andean ⁴	129.0	4.6	...
Colombia	26.4	3.8	0.2
Ecuador	11.0	5.3	0.5
Chile	120.9	6.9	0.2
Perú	17.7	3.1	0.3
Bolivia	379.2	8.3	0.2
Brazil	59.4	5.3	0.3
River Plate ⁴	322.3	21.8	1.2
Argentina	374.1	60.0	1.3
Uruguay	214.1	20.2	0.5
Paraguay	108.7	4.1	0.4

SOURCE: USDA (1).

- ^{1/} Includes annual and permanent crops and cultivated pasture land.
- ^{2/} Includes fallow land.
- ^{3/} Excludes Caribbean.
- ^{4/} Regional average were weighted by agricultural area (Column 1), by number of land holders (Column 2), and by 1974's population (Column 3) of each country. Information used correspond to latest census available for each country
- ^{5/} Non ejido sector only.

TABLE 6. LATIN AMERICA. POPULATION GROWTH RATES¹

Country or Region	1960	1965	1970	1975	1975 Population (Millions)
Mexico	3.1	3.5	3.4	3.4	59.9
Caribbean	2.0	2.1	2.2	2.6	23.0
Central America	2.8	3.0	3.0	3.0	19.2
South America	2.7	2.6	2.7	2.7	217.0
Andean 5	2.9	2.8	2.9	2.9	63.9
Venezuela	3.3	3.3	3.3	3.3	12.7
Brazil	2.9	2.8	2.8	2.8	108.8
River Plate	1.8	1.7	1.6	1.5	31.5
Latin America	2.7	2.8	2.8	2.8	319.5
LDC's except Latin America	2.0	2.1	2.2	2.2	2,529.0
World	1.8	1.8	1.9	1.9	3,971.0

SOURCE: USDA (1).

¹/ Compound annual rate during the five year period ending with the year shown.

TABLE 7. INDICES OF PER CAPITA FOOD
PRODUCTION IN LATIN AMERICA

Region	1961-65	1970	1974	1975 ^a
Mexico	100	107	98	103
Caribbean	100	89	91	85
Central America	100	113	110	109
South America	100	106	105	105
Andean	100	102	99	97
Venezuela	100	117	112	116
Brazil	100	112	116	115
River Plate	100	105	104	105
Latin America	100	106	104	104
Latin America ^b	100	104	97	96

SOURCE: USDA (1).

a/ Calculated from published (2) and unpublished data provided by USDA and linked to 1974 values.

b/ Excluding Mexico, Colombia, Brazil and Argentina which, with 69% of the population, account for 80% of the estimated value of Latin America's agricultural production.

TABLE 8. APPARENT DAILY CONSUMPTION OF CALORIES
AND PROTEINS, 1971-73

Country	Energy as Percentage of Requirement ^a	Protein (g)
Argentina	122	95
Uruguay	115	98
Brazil	115	67
Mexico	115	61
Chile	114	77
Jamaica	114	67
Costa Rica	114	63
Guyana	112	56
Panamá	111	62
Nicaragua	110	69
Barbados	108	75
Paraguay	108	70
Cuba	108	63
Perú	101	62
Trinidad & Tobago	99	65
Venezuela	99	62
Colombia	94	50
Guatemala	93	58
Honduras	93	53
Dominican Republic	92	50
Bolivia	85	47
Ecuador	84	43
El Salvador	83	51
Haiti	79	39
Latin America ^b	112	66

SOURCE: USDA (1).

a/ Based on minimum requirement estimated by FAO for each country.

b/ Average minimum requirement 2,320 calories daily.

TABLE 9. ESTIMATED CALORIE AND PROTEIN INTAKES AND DEFICIT OR EXCESS BY STRATA IN CALI, COLOMBIA, 1975

	S t r a t a					Average
	I	II	III	IV	V	
Income range U.S.\$/family/month	-37.5	37.5-50	50.1-100	100.1-150	+150	
Estimated daily intake of calories per capita	1904	2119	2510	2831	3836	2552
Intake in percent of requirements ^a	89	99	117	132	178	119
Estimated daily intake of protein per capita (g)	44.6	51.6	64.6	81.1	126.4	69.2
Intake in percent of requirements	72	83	104	131	204	112

SOURCE: CIAT (12).

^a/ Based on estimated requirements for Colombia (Williamson et. al.)

TABLE 10. AMERICAS (SELECTED AREAS): PERCENTAGE RATES OF
NUTRITIONALLY RELATED DEATHS ¹
IN CHILDREN UNDER 5 YEARS OF AGE, 1968-72

	Total Deaths		Nutritionally Related Death Rate
	Number	Rate Over Total Population	
ARGENTINA			
Chaco Province			
Resistencia	864	2.07	1.29
Rural Departments	837	2.39	1.22
San Juan Province			
San Juan (City)	326	1.29	0.69
Suburban Depts.	780	2.20	1.27
Rural Depts	1.050	2.40	1.32
BOLIVIA			
La Paz	4.115	2.66	1.27
Viacha	161	4.81	1.97
BRAZIL			
Recife	3.635	2.93	1.95
Riberao Preto			
Riberao Preto (City)	464	1.09	0.76
Franca	434	1.94	1.24
Communities	228	1.30	0.87
Sao Paulo	4.312	1.77	1.04
CANADA			
Sherbrooke	371	0.41	0.20
CHILE			
Santiago	2.489	1.30	0.72
Comunas	225	1.40	0.74
COLOMBIA			
Cali	1.627	1.61	0.90
Cartagena	1.255	1.46	0.95
Medellín	1.348	1.45	0.90
EL SALVADOR			
San Salvador	2.738	2.64	1.43
Rural Municipios	1.082	5.05	2.77
JAMAICA			
Kingston & St. Andrew	1.903	1.04	0.61
MEXICO			
Monterrey	3.953	1.81	0.99
U.S.A.			
San Francisco	234	0.54	0.29
California Suburban	664	0.41	0.23
TOTAL	35.095	1.67	0.95

SOURCE: Puffer, Ruth Rice and Carlos V. Serrano, Patterns of Mortality in childhood, PAHO, 1973; from USDA (1).

^{1/} Includes deaths in which nutritional deficiency and immaturity were identified as underlying or associated causes.

TABLE 11. FERTILIZER PRODUCTION, CONSUMPTION AND BALANCE BY REGIONS. 1969/70 to 1973/74

	1969/70	1971/72	1973/74
---('000 tons N.P.K. Nutrients)---			
MEXICO			
Production	477	488	631
Consumption	529	693	748
Balance	-52	-205	-117
CARIBBEAN ¹			
Production	110	106	140
Consumption	149	121	246
Balance	-39	-15	-106
CENTRAL AMERICA ²			
Production	22	28	34
Consumption	213	240	324
Balance	-191	-212	-290
RIVER PLATE			
Production	23	62	56
Consumption	122	146	147
Balance	-99	-84	-91
ANDEAN			
Production	278	298	357
Consumption	456	510	736
Balance	-178	-212	-379
BRAZIL			
Production	124	298	512
Consumption	601	1,076	1,673
Balance	-477	-778	-1,161
SOUTH AMERICA ³			
Production	421	658	920
Consumption	1,198	1,750	2,578
Balance	-777	-1,092	-1,658
LATIN AMERICA			
Production	1,033	1,294	1,756
Consumption	2,556	3,096	4,173
Balance	-1,523	-1,802	-2,417

SOURCE: FAO, Data reported in (1) USDA.

^{1/} Includes nitrogen production for Netherland Antilles. Consumption also includes Martinique, Virgin Island and St. Kitts, Guadeloupe, St. Lucia, St. Vicent.

^{2/} Consumption includes Belize.

^{3/} Includes Guyana, Surinam.

TABLE 12. LATIN AMERICA: FORECAST OF FERTILIZER SUPPLY,
CONSUMPTION AND BALANCE. 1974/75-1980/81

Fertilizer	<u>Estimate</u>	<u>Forecast</u>			Annual Growth Rate 1973/74 to 1980/81
	1974/75	1976/77	1978/79	1980/81	
----- (Million metric tons) -----					
NITROGEN (N)					
Supply	1.1	1.7	2.1	2.3	14.3
Consumption	2.0	2.4	2.8	3.2	8.6
Balance	-0.9	-0.7	-0.7	-0.9	(0.0)
PHOSPHATE (P ₂ O ₅)					
Supply	0.9	1.0	1.4	1.6	10.4
Consumption	1.5	1.7	1.9	2.2	6.7
Balance	-0.6	-0.7	-0.5	-0.6	(0.0)
POTASH (K ₂ O)					
Supply	---	---	0.1	0.2	39.0
Consumption	1.1	1.3	1.5	1.8	10.4
Balance	-1.1	-1.3	-1.4	-1.6	(9.5)
TOTAL (N,P,K)					
Supply	2.0	2.7	3.6	4.1	12.9
Consumption	4.6	5.4	6.2	7.2	8.1
Balance	-2.6	-2.7	-2.6	-3.1	(3.6)

SOURCE: FAO Data reported in (5) USDA.

TABLE 13. PRICE FORECAST

Year	Rice	Beef		Nitrogen (Urea)	Phosphate
		FOB, Exports from Latin America	CIF, from Argentina in Europe		
----- (US\$/ton, Constant 1973 prices) -----					
1973 ^a	350	1.451	3.180	95	119
1974 ^a	542	1.485	n.a.	260	274
1975	311	n.a.	n.a.	222	252
1980	240	n.a.	3.350	102	155
1985	240	n.a.	3.720	116	162

SOURCE: IBRD - July 1975.

n.a.: not available.

a/ 1973 and 1974 are actual data; 1975, 1980 and 1985 are price forecast.

TABLE 14. WORLD PHOSPHATE ROCK RESOURCES

Region	Known Reserves ¹	Percent of Total	Other Resources ²	All Resources	Percent of Total
----- (Billion metric tons) -----					
United States	2.3	14	4.1	6.4	8
U.S.S.R.	0.7	4	2.9	3.6	5
Africa	11.6	72	49.0	60.6	80
Morocco	9.1 ³	57	45.4	54.4	71
Spanish Sahara	1.5 ⁴	9	1.8	3.4	4
Tunisia	0.5	3	1.4	1.8	2
Other Africa	0.6	4	0.4	1.0	1
Asia	0.3	2	1.8	2.1	3
Australia	0.9	6	1.8	2.7	4
Other	0.2	1	0.5	0.7	1
Total World	16.1		60.0	76.1	

SOURCE: USDA (5).

^{1/} Estimated recoverable reserves at \$30.49 per metric ton for 70 BPL rock BOF Florida, the price fixed July 1, 1974 by the Phosphate Rock Export Association and effective when these estimates were made.

^{2/} Includes reserves recoverable at higher prices, with improved technology, etc.

^{3/} Reserve may be as high as 36 billion tons.

^{4/} Reserve may be as high as 9 billion tons.

TABLE 15. SELECTED COUNTRIES: UREA/RICE PRICE RATIOS
1970-74

	Urea Price	Rice Price	Urea/Rice Price Ratio
CHILE ----- Escudos/ton -----			
1970	1.040	956	1.08
1971	1.808	1,204	1.50
1972	1.619	1,505	1.07
1973	17.119	6.615	2.58
1974	282.235	70.000	4.03
COLOMBIA ----- Pesos/ton -----			
1970	2.000	2,050	0.97
1971	2.350	2,050	1.15
1972	2.580	2,050	1.26
1973	4.980	2,426	2.05
1974	6.870	3,823	1.80
EL SALVADOR ----- Colones/ton -----			
1970	203	275	0.74
1971	208	323	0.64
1972	198	330	0.60
1973	341	333	1.02
1974	769	529	1.45
NICARAGUA ----- Córdobaes/ton -----			
1970	516	1,565	0.32
1971	405	1,485	0.27
1972	704	1,547	0.45
1973	1,100	1,633	0.67
1974	3,520	1,775	1.98
PERU ----- Soles/ton -----			
1972	3,863	5,000	0.77
1973	5,419	5,000	1.08
1974	8,790	6,000	1.47
UNITED STATES ----- Dollars/ton -----			
1970	91	109	0.83
1971	90	114	0.78
1972	90	118	0.76
1973	100	148	0.67
1974	202	304	0.66
VENEZUELA ----- Bolivares/ton -----			
1970	423	620	0.68
1971	423	630	0.67
1972	423	660	0.64
1973	423	690	0.61
1974	438	800	0.54

SOURCE: USDA (1).

TABLE 16. WORLD PHOSPHATE ROCK PRODUCTION CAPACITY

Region	1973	1974	1980
	----- million tons -----		
United States	40.2	40.8	62.6
U.S.S.R.	22.3	22.8	32.7
Africa-Near East	31.8	34.2	58.6
Morocco	17.4	19.0	27.2
Tunisia	3.7	3.6	5.9
Togo	2.4	2.4	3.0
Spanish Sahara	1.8	1.8	9.1
Senegal	1.8	1.8	2.3
Jordan	1.2	1.2	2.7
South Africa	1.4	1.6	3.2
Israel	0.7	0.9	1.8
Algeria	0.7	0.9	1.8
Egypt	0.6	0.5	0.5
Syria	0.1	0.5	1.1
China, Peoples Rep.	3.2	3.2	6.3
Nauru	2.4	2.4	2.4
Christmas Island	1.6	1.6	2.0
North Vietnam	0.5	0.8	1.4
Ocean Island	0.8	0.8	...
Other	1.2	1.5	7.2
World Total	104.3	108.3	173.2

SOURCE: Bureau of Mines, "Phosphate Rock", a Chapter from Mineral Facts and Problems, 1975 edition, p.2., from USDA (5).

TABLE 17. LATIN AMERICA: ANNUAL GROWTH RATES
OF OUTPUT FOR SELECTED COMMODITIES

Period	Rice	Beans	Cassava	Beef and Veal	Pork	Corn	Total Agricultural Production
----- Percentage -----							
1960-67	4.8	6.1	5.9	1.8	3.6	6.6	3.3
1967-74	2.4	-0.5	-0.9	1.8	4.3	1.5	2.6
1955-74	4.3	3.3	3.8	1.6	3.2	4.5	2.9

SOURCE: USDA (1).

TABLE 18. LATIN AMERICA: GROWTH RATES OF BEEF CATTLE STOCKS AND SLAUGHTER, 1960-75

Country	1960-65		1965-70		1970-75	
	Cattle Stock	Slaughter	Cattle Stock	Slaughter	Cattle Stock	Slaughter ¹
Mexico	3.9	5.5	3.4	5.0	2.4	9.4
Caribbean	0.9	1.5	1.6	1.8	3.8	3.6
Dominican Republic	-0.5	-0.8	0.0	5.2	11.5	5.9
Haiti	0.7	3.7	6.3	-1.7	-4.7	2.2
Central America	3.3	5.5	3.6	7.4	2.5	4.0
Costa Rica	4.1	3.3	5.4	9.2	4.0	8.4
El Salvador	2.7	2.0	2.5	-1.0	-6.8	11.6
Guatemala	5.4	4.3	0.8	6.3	7.1	2.1
Honduras	1.2	4.8	1.2	9.6	0.9	11.9
Nicaragua	1.0	10.8	7.6	11.4	4.8	-5.4
South America	2.3	1.8	0.0	4.2	3.1	-1.1
Andean	2.4	3.9	2.9	3.2	1.9	-0.6
Venezuela	3.1	6.0	3.0	4.4	1.4	7.7
Bolivia	1.9	0.7	-2.6	-1.8	0.3	0.5
Chile	-0.3	-0.3	0.9	5.1	0.7	-4.6
Colombia	2.5	5.1	3.5	2.4	2.8	-3.9
Ecuador	1.9	1.0	7.1	1.9	2.0	11.9
Perú	3.1	6.6	2.5	3.7	0.4	-6.9
Brazil	2.9	1.9	-1.4	4.3	3.0	3.3
River Plate	1.5	1.1	0.3	4.5	3.8	-4.4
Argentina	1.5	1.1	0.7	5.6	3.8	-4.0
Paraguay	1.4	1.3	-4.4	-0.5	2.1	-8.1
Uruguay	1.5	1.1	-0.5	-1.8	5.3	-5.4
Latin America	2.5	2.1	0.6	4.2	2.9	0.2

SOURCE: USDA (1).

¹/ Period 1970/74.

TABLE 19. LATIN AMERICA: NUMBER OF CATTLE BY COUNTRY
AND PER INHABITANT, PER CAPITA
BEEF OUTPUT, AND OUTPUT PER HEAD IN STOCK; 1975

Country	Stock Million Heads	Head per Inhabitant	Output per-capita	Output per Head in Stock
			---- (kgs/year ¹)----	
United States	131.8	0.62	50.3	80.8
Mexico	28.1	0.47	14.6(+)	30.7(+)
Caribbean	3.2	0.23	5.1	21.9
Dominican Rep.	1.9	0.38	8.1	21.7
Others	1.3	0.14	3.4	22.2
Cuba	7.6	0.82	21.2	25.5
Central America	10.4	0.54	15.4	28.4
Costa Rica	1.8	0.91	29.9	32.8
El Salvador	1.0	0.24	7.8(+)	30.6(+)
Guatemala	2.0	0.34	10.8	32.3
Nicaragua	2.5	1.11	22.0(-)	20.0(-)
Panama	1.4	0.84	24.7	30.0
Honduras	1.7	0.53	15.2	28.3
Andean	44.5	0.58	13.3	22.7
Venezuela	8.9	0.70	22.0(+)	30.5(+)
Bolivia	2.4	0.45	10.3	22.8
Chile	3.1	0.30	14.6	50.3
Colombia	23.2	0.90	14.6(-)	16.1(-)
Ecuador	2.7	0.38	9.9	26.1
Perú	4.2	0.27	5.4	20.5
Brazil	91.1	0.84	19.9(-)	23.8(-)
River Plate	71.8	2.28	82.3	35.5
Argentina	56.0	2.16	87.2(-)	40.5(-)
Paraguay	4.8	1.87	36.0	19.0
Uruguay	11.0	3.59	82.8(-)	22.7(-)
South America	207.4	0.96	26.8	27.7
Latin America	256.8	0.80	22.7	27.9

SOURCE: USDA (1).

¹/ Year 1974; slaughter only (excluding changes in stocks, smuggling and exports on foot).

(+) Indicates high slaughter year, hence figures overestimate actual values.

(-) Indicates low slaughter year.

TABLE 20. LATIN AMERICA: NUMBER OF HOGS BY COUNTRY
AND PER INHABITANT, PER-CAPITA
PORK OUTPUT, AND OUTPUT PER HOG IN STOCK; 1974¹

Country	Stock Million Heads	Head per Inhabitant	Output per-capita	Output per Head in Stock
			---- (kgs/year) ----	
United States	61.1	0.29	29.5	102
Mexico	11.7	0.20	6.1	30
Caribbean	2.6	0.19	2.9	15
Dominican Rep.	0.5	0.10	3.7	36
Haiti	1.7	0.34	2.4	7
Others	0.3	0.07	2.2	30
Cuba	1.5	0.17	4.2	25
Central America	2.8	0.15	2.8	19
Costa Rica	0.2	0.10	4.1	40
El Salvador	0.4	0.10	2.7	28
Guatemala	0.9	0.16	1.6	10
Honduras	0.5	0.16	1.3	8
Nicaragua	0.6	0.27	7.8	26
Panama	0.2	0.12	2.5	20
Andean	9.6	0.13	3.8	29
Venezuela	1.6	0.13	4.2	33
Bolivia	1.1	0.21	3.9	18
Chile	0.9	0.09	3.9	43
Colombia	1.8	0.07	3.8	53
Ecuador	2.4	0.34	4.4	13
Perú	1.9	0.13	3.0	24
Brazil	35.0	0.33	6.8	21
River Plate	6.2	0.20	9.2	46
Argentina	5.1	0.20	9.1	45
Paraguay	0.7	0.28	11.2	40
Uruguay	0.4	0.13	8.6	65
South America	50.8	0.24	6.1	25
Latin America	69.4	0.22	5.9	26

SOURCE: USDA (1).

^{1/} Figures must be interpreted with caution since output as well as stock are estimates obtained by using different criteria, and unregistered slaughter is a rather high proportion of total slaughter, except in the U.S.

TABLE 21. PORK: ANNUAL OUTPUT PER HEAD
IN STOCK, SELECTED YEARS (kg)¹

Region	1960	1965	1970	1974
United States	89.2	90.1	106.8	102.1
Mexico	28.0	26.0	30.8	30.4
Caribbean	14.0	11.6	13.1	14.9
Central America	19.4	17.6	18.9	19.0
Andean 6	21.9	21.1	25.1	29.3
Venezuela	15.0	17.4	26.2	33.1
Colombia	30.5	22.8	34.4	52.6
Brazil	7.9	8.2	20.4	20.7
River Plate	47.8	52.5	47.7	46.3
South America	13.0	12.9	24.7	25.4
Latin America	14.8	14.5	25.0	26.3

SOURCE: USDA (1).

¹/ See Footnote Table 20.

TABLE 22. PORK: ESTIMATED PER CAPITA PRODUCTION FOR
SELECTED YEARS (kgs per inhabitant)¹

Region	1960	1965	1970	1974
United States	29.1	26.0	29.8	29.5
Mexico	4.7	5.2	6.3	6.1
Caribbean	2.9	2.3	2.5	2.9
Central America	3.6	3.0	3.4	2.8
Andean	3.6	3.5	3.9	3.8
Brazil	5.1	5.6	6.8	6.9
River Plate	9.2	9.4	8.7	9.2
South America	5.3	5.6	6.1	6.1
Latin America	5.0	5.3	5.8	5.9

SOURCE: USDA (1).

^{1/} See footnote Table 20.

TABLE 23. LATIN AMERICA: TOTAL AND PER CAPITA PRODUCTION OF CASSAVA

Country	1965		1970		1974	
	Total Production	Per Capita Production	Total Production	Per Capita Production	Total Production	Per Capita Production
	('000 tons)	(kgs)	('000 tons)	(kgs)	('000 tons)	(kgs)
Brazil	24.993	309	30.074	322	30.000	290
Colombia	800	44	1.250	59	1.320	55
Paraguay	1.512	745	1.782	746	1.108	413
Ecuador	254	49	410	67	543	79
Venezuela	301	33	317	30	325	28
Bolivia	174	47	221	45	270	50
Perú	449	38	498	37	266	18
Cuba	200	26	220	26	238	26
Dominican Rep.	152	42	170	42	205	46
Argentina	265	12	292	12	203	8
Haiti	112	25	130	14	137	14
Panama	45	36	43	30	41	26
Honduras	16	7	35	14	40	14
Nicaragua	13	8	17	9	18	8
Jamaica	9	5	20	11	15	7
El Salvador	8	3	11	3	15	4
Costa Rica	8	5	13	7	14	7
Guyana	10	15	12	..	14	18
Guatemala	3	1	6	1	7	1
Puerto Rico	5	2	4	2	5	2
French Guyana	5	143	3	60	4	73
Trinidad & Tobago	5	5	3	3	5	5
Guadalupe	5	16	5	15	3	8
Martinica	3	9	3	9	3	8
Surinam	2	7	1	2	2	5
Total Latin American	29.349	154	35.540	165	34.801	146

SOURCE: FAO (6)

TABLE 24. - LATIN AMERICA: TOTAL AND PER CAPITA PRODUCTION OF DRY BEANS

Country	1961-1965		1970		1975	
	Total Production (['] 000 tons)	Per capita Production (kgs)	Total Production (['] 000 tons)	Per capita Production (kgs)	Total Production (['] 000 tons)	Per capita Production (kgs)
Brazil	1.928	23	2.211	23	2.271	21
Mexico	740	17	1.000	20	1.130	19
Argentina	...	..	40	2	109	4
Guatemala	36	8	70	13	76	13
Chile	87	10	65	7	74	7
Colombia	44	2	46	2	62	2
Honduras	45	10	55	11	52	13
Nicaragua	34	20	44	23	52	23
Venezuela	40	4	55	5	42	3
El Salvador	14	5	30	8	37	9
Perú	39	3	53	4	36	2
Paraguay	39	20	35	15	30	12
Ecuador	24	5	35	6	30	4
Dominican Rep.	21	6	25	6	28	6
Bolivia	14	3	14	3	20	4
Costa Rica	17	11	8	5	16	8
Panama	6	5	3	2	4	2
Cuba	23	3	23	3	..	..
Haiti	41	10	42	9	..	..
Uruguay	2	0.7	2	0.7	..	..
Latin America	3.194	15	3.856	14	4.069	13

SOURCE: USDA (1 and 2), FAO (6), and Argentina (14).

TABLE 25. LATIN AMERICA: TOTAL AND PER-CAPITA PRODUCTION OF RICE

Country	1961-1965		1970		1975	
	Total Production	Per Capita Production	Total Production	Per Capita Production	Total Production	Per Capita Production
	('000 tons)	(kgs)	('000 tons)	(kgs)	('000 tons)	(kgs)
Brazil	6.123	78	6.648	70	6.500	60
Colombia	576	33	752	34	1.614	63
Mexico	314	8	405	8	615	10
Peru	324	29	587	44	456	29
Argentina	193	9	407	17	351	13
Venezuela	136	16	226	21	370	29
Guyana	239	394	210	292	321	396
Ecuador	173	36	232	38	321	45
Dominican Rep.	130	38	210	50	202	40
Uruguay	136	51	226	78	188	61
Panama	122	105	131	92	175	105
Costa Rica	64	46	79	45	168	85
Nicaragua	44	28	75	39	118	52
El Salvador	27	10	44	12	92	22
Haiti	64	16	80	18	82	16
Chile	85	10	76	8	76	7
Bolivia	43	11	64	14	75	14
Guatemala	16	4	26	5	64	11
Paraguay	18	9	37	16	50	19
Trinidad & Tobago	10	11	10	11	19	20
Honduras	24	11	6	2	16	5
Jamaica	4	2	1	0.5	3	1
Total Latin America	8.865	40	10.532	39	11.876	38

SOURCE: USDA (2).

TABLE 26. LATIN AMERICA: TOTAL AND PER CAPITA PRODUCTION OF CORN BY COUNTRIES, SELECTED YEARS

Country	1965		1970		1974	
	Total Production	Per Capita Production	Total Production	Per Capita Production	Total Production	Per Capita Production
	('000 tons)	(kgs)	('000 tons)	(kgs)	('000 tons)	(kgs)
Brazil	12.112	150	14.216	153	16.065	154
Argentina	5.140	228	9.360	385	9.900	385
Mexico	8.678	203	9.000	177	7.784	134
Colombia	972	54	800	37	775	32
Guatemala	678	153	719	141	613	107
Venezuela	521	57	710	66	500	41
Perú	591	51	615	45	472	31
Chile	221	25	239	25	367	35
El Salvador	203	69	363	105	359	91
Bolivia	239	58	283	61	277	54
Honduras	356	156	390	144	260	84
Ecuador	191	37	221	36	255	37
Paraguay	210	103	259	108	250	90
Haiti	234	51	235	45	250	43
Uruguay	63	23	139	48	225	74
Nicaragua	171	98	190	94	193	84
Cuba	117	15	115	14	125	14
Panama	86	69	85	58	60	36
Costa Rica	78	52	86	49	55	28
Dominican Rep.	50	14	45	10	38	8
Jamaica	4	2	4	2	12	6
Trinidad & Tobago	3	3	3	3	4	4
Guyana	1	2	2	3	3	4
Surinam	1	3	1	3	..	..
Total Latin America	30.920	128	38.080	137	38.842	125

SOURCE: FAO (6).

TABLE 27. LATIN AMERICAN: INCREMENTS TO PRODUCTION ATTRIBUTED TO
CHANGES IN AREA AND YIELDS 1960-64 TO 1970-74

	Rice		Beans ¹		Cassava		Corn	
	'000 m.t	(%)	'000 m.t	(%)	'000 m.t	(%)	'000 m.t	(%)
Area	2.743	(83)	474	(55)	7.366	(82)	6.857	(57)
Yield	431	(13)	334	(39)	1.191	(14)	4.089	(34)
Combined	143	(4)	59	(6)	389	(4)	1.111	(9)
Total	3.316	(100)	867	(100)	8.946	(100)	12.057	(100)

SOURCE: USDA (1).

^{1/} Excluded Central America and the Andean Zone.

TABLE 28. VOLUME OF TRADE: NET EXPORTS FROM LATIN AMERICA^a

Product	1960	1965	1970	1974
	----- (metric tons) -----			
Beans	-72,300 (5.3) ^b	-81,600 (3.6)	-142,420 (7.9)	-61,420 (3.5)
Beef	+351,343 (36.2)	+466,381 (32.2)	+648,895 (31.4)	+387,852 (17.0)
Rice	-217,400 (3.2)	-99,600 (1.3)	+ 9,740 (0.1)	-212,520 (2.4)
Corn	3,020,000 (26.0)	4,392,100 (18.0)	5,263,689 (18.0)	3,902,881 (8.0)

SOURCE: FAO (6).

a/ Imports from, minus exports to, third regions.

b/ Figures in parentheses represent the proportion of world trade.

TABLE 29. LATIN AMERICA: CORN NET EXPORTS BY COUNTRIES,
YEARS 1965, 1970 AND 1974

Regions	1965	1970	1974
	----- ('000 tons)-----		
<u>South America</u>			
Argentina	2803	5233	5600
Bolivia		1	-3
Brazil	558	1469	1102
Chile	-12	-264	-194
Colombia	2	6	- 50
Ecuador			
Guyana	-1	-6	-8
Paraguay	8	23	5
Perú	-4	-2	-270
Surinam		-11	-14
Uruguay	-4		
Venezuela	-42	-109	-260
Others		-312	-182
Sub-total	3308	6028	5726
<u>Central America and Mexico</u>			
Costa Rica	-8	-31	-42
Cuba	-144	-170	-344
Dominican Rep.	3	-3	-70
El Salvador	-58	15	10
Guatemala	-11	-16	-65
Haiti			
Honduras	63	15	
Jamaica	-23	67	-106
Mexico	1335	-760	-1270
Nicaragua	-5	6	-1
Panama	-2		-23
Trinidad & Tobago	-26	-47	60
Others	-11	43	-6
Sub-total	1113	915	-1857
Total Latin America	4421	6943	3869

SOURCE: FAO (6).

TABLE 30. LATIN AMERICA: BEANS, BEEF AND RICE, NET EXPORTS BY COUNTRIES, YEARS 1965 AND 1974

Regions	BEANS		BEEF				RICE	
	1965	1974	Alive		Beef		1965	1974
	-- ('000 tons)--		-- ('000 head)--		----- ('000 tons)-----			
<u>South America</u>								
Argentina	31.5	59.5	93.8	16.7	349.2	109.6	43.3	48.0
Bolivia	-0.3	0	12.0	-12.0	0.4	2.0	-0.3	0.07
Brazil	-9.2	24.9	5.3	50.0	35.8	78.6	236.8	56.3
Chile	0.8	37.2	-79.9	-150.0	-6.4	-3.4	-10.7	-22.6
Colombia	-0.4	13.4	56.5	319.8	4.5	18.9	-0.5	60.0
Ecuador	....	....	....	3.7	4.8	15.7	0	-20.0
Guyana	-3.6	-2.5	0.4	0.8	0.4	....	95.1	40.0
Paraguay	....	0	-0.2	-67.0	4.8	15.7	0	0.6
Peru	-3.8	0	-66.8	-60.0	-58.2	-7.0	-91.9	-42.9
Surinam	-1.5	-1.5	-0.4	-0.4	0	....	21.0	32.6
Uruguay	-1.3	-2.1	5.4	0	....	94.2	18.8	73.3
Venezuela	-29.4	-23.7	-5.6	-150.0	0	....	20.0	34.6
Others	-0.3	-0.2	-0.3	-0.4	0.2	-0.3	0	-1.0
Sub-Total	-17.5	105.0	20.2	-48.8	451.5	324.0	331.6	259.0
<u>Central America and Mexico</u>								
Costa Rica	-2.7	-6.1	12.9	-1.5	4.6	25.4	-5.1	11.6
Cuba	-68.2	-93.4	-7.3	-3.3	....	....	-280.0	-220.0
Dominican Rep.	-2.0	1.4	-0.1	-1.1	0	6.7	-22.1	-70.3
El Salvador	-17.0	0	6.2	-0.2	0	5.5	2.8	2.5
Guatemala	-3.9	-5.0	33.4	0.9	5.8	12.9	2.2	-5.4
Haiti	....	....	....	....	....	0.7	-0.1	-0.07
Honduras	22.4	8.0	24.6	0	0	17.3	0.3	-4.5
Jamaica	-3.0	-2.4	-0.1	-0.2	-2.2	-3.9	33.4	39.4
Mexico	24.3	42.4	525.9	337.1	22.1	13.8	-16.8	-67.1
Nicaragua	2.3	-3.9	0.4	-1.4	10.2	15.7	-9.4	10.0
Panama	-3.3	-3.5	5.2	0.3	0	0.1	-0.4	-0.2
Trinidad & Tobago					-2.8	-2.1	-31.0	-38.5
Others	12.6	-15.1	-12.9	-14.4	....	....	-62.6	-43.1
Sub-Total	-63.2	-77.6	588.2	316.2	27.5	92.1	-388.8	-385.7
Total Latin America	-80.7	27.4	608.4	267.4	479.0	416.1	-57.2	-126.7

SOURCE: FAO (6).

ANNEX 2

FIGURES

FIGURE 1. LORENZE CURVES OF AGRICULTURAL LAND DISTRIBUTION BY OPERATIONAL HOLDINGS

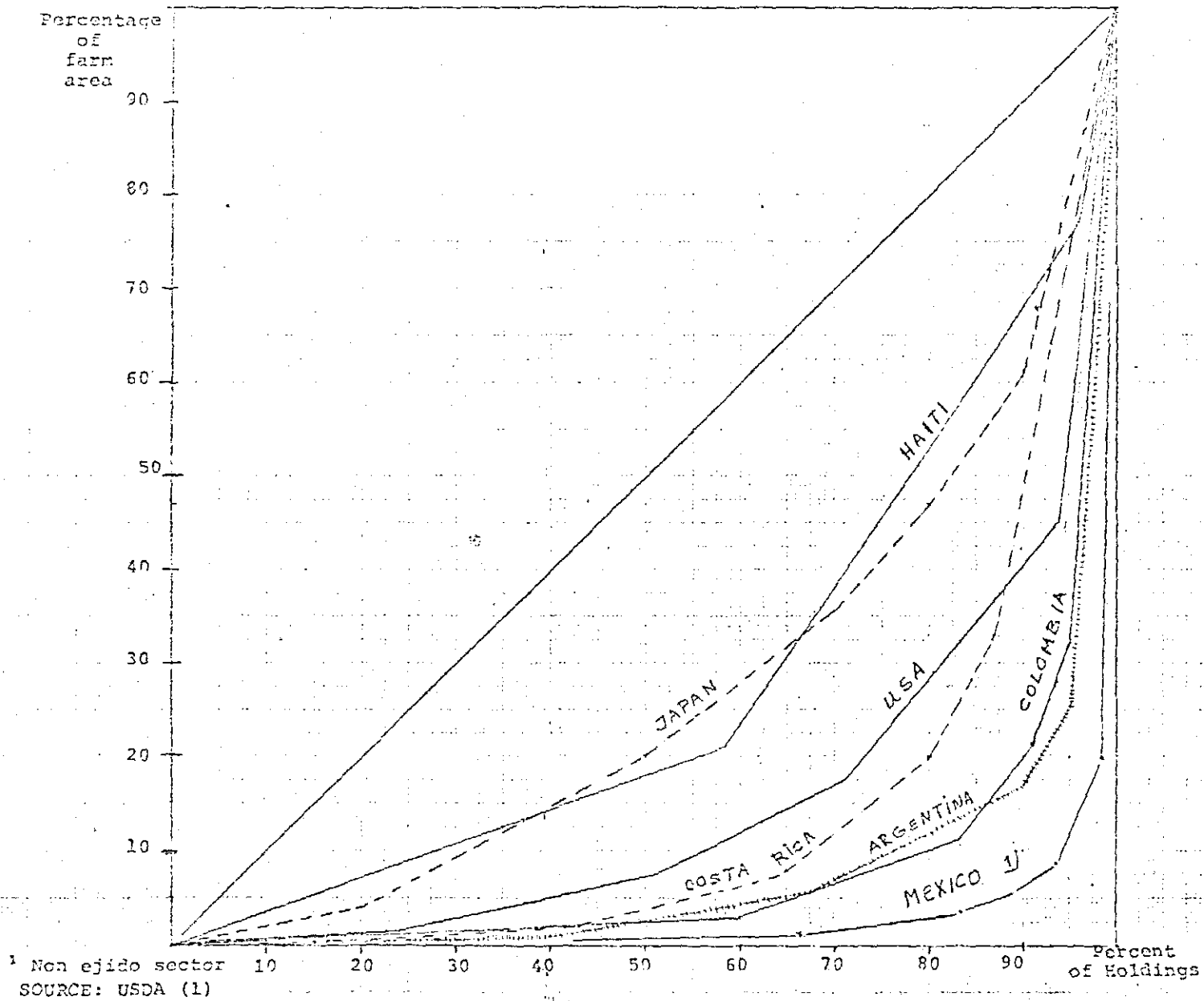
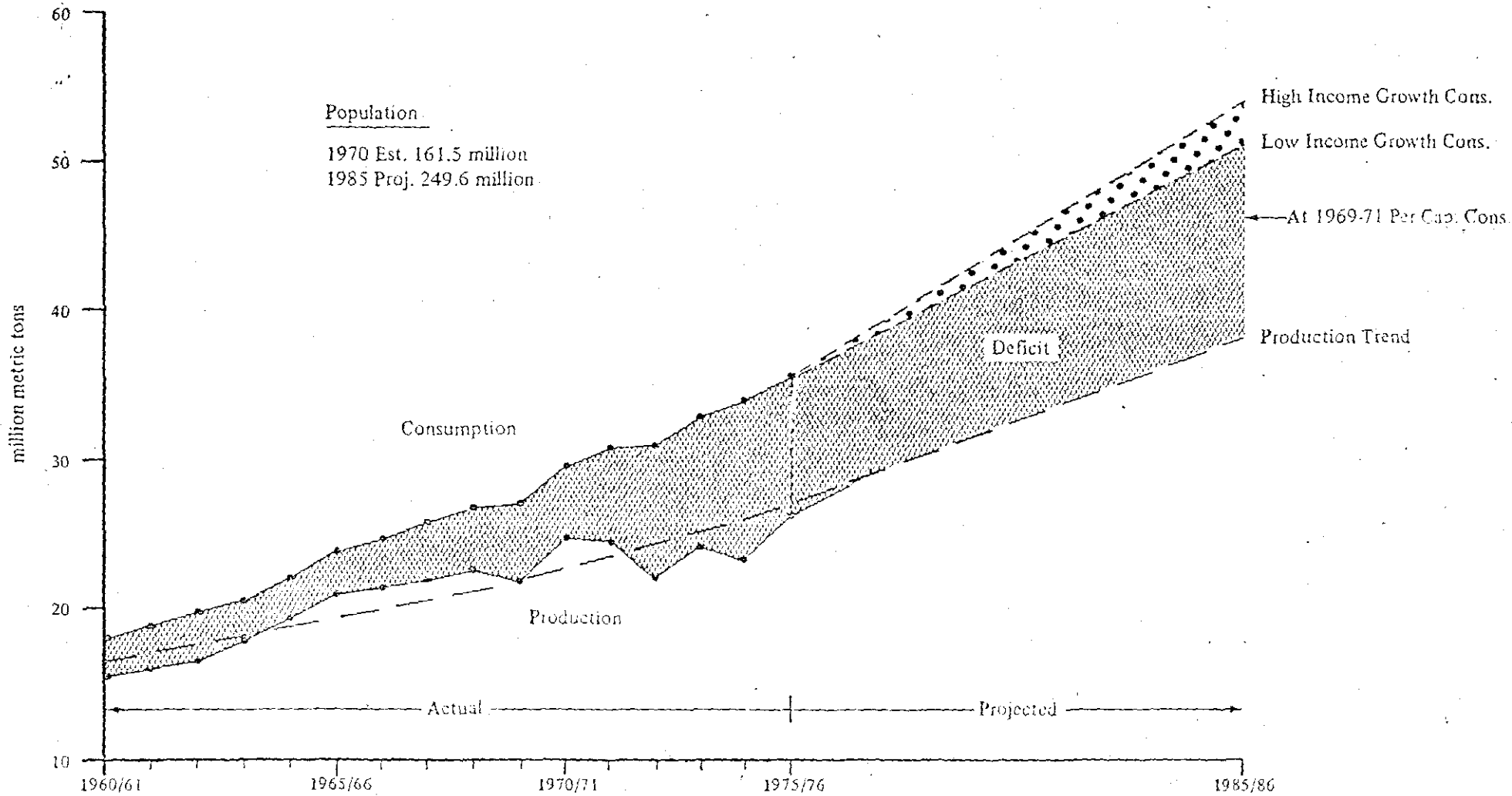


FIGURE 2
 LATIN AMERICA: FOOD DEFICIT DEVELOPING MARKET ECONOMIES*
 CEREALS: PRODUCTION AND CONSUMPTION 1960-75,
 AND PROJECTED 1985



SOURCE: IFPRI (13).

* Excluding Argentina and Brazil.

FIGURE 3. FERTILIZER EXPORT PRICES: 1965-75

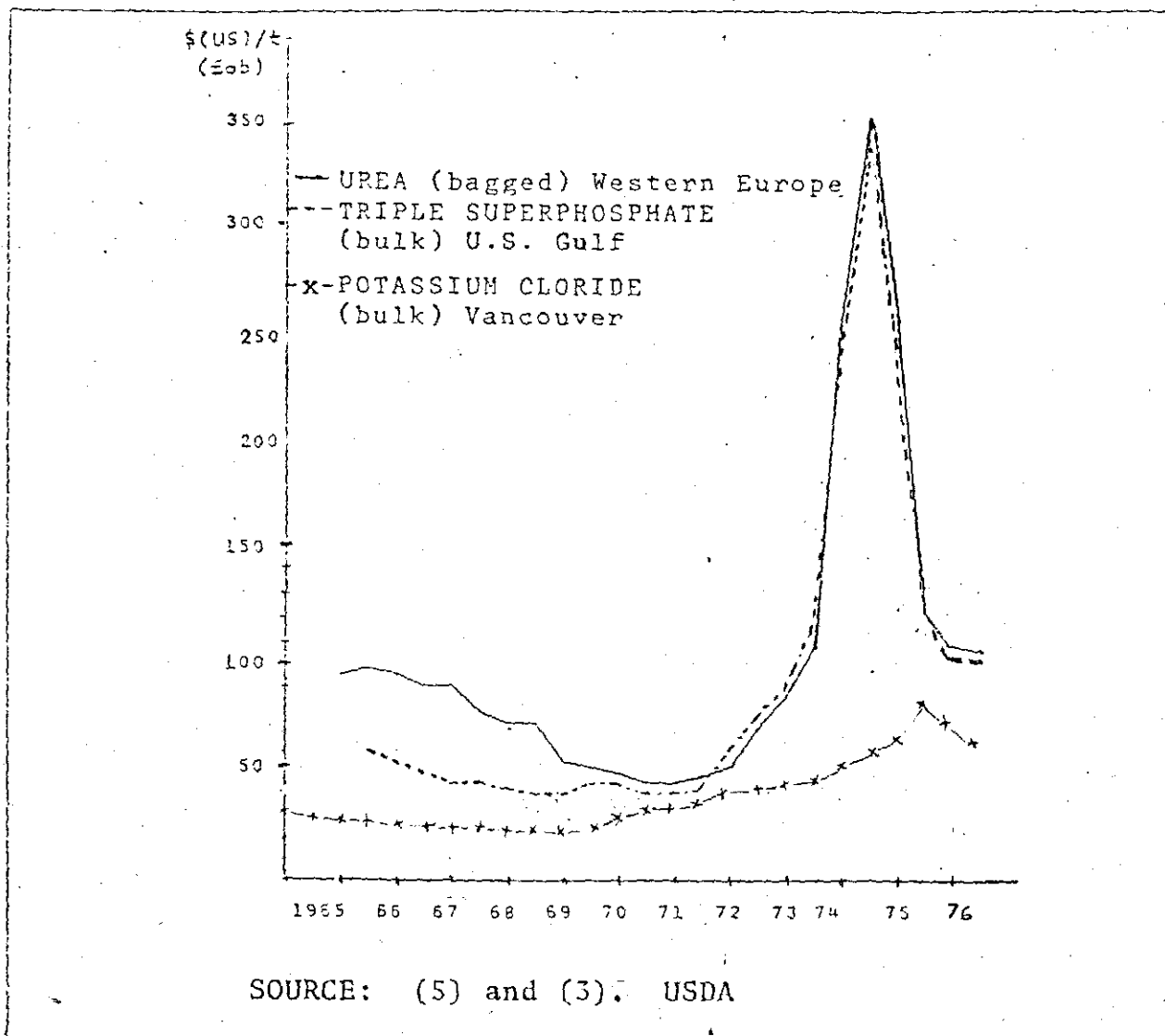
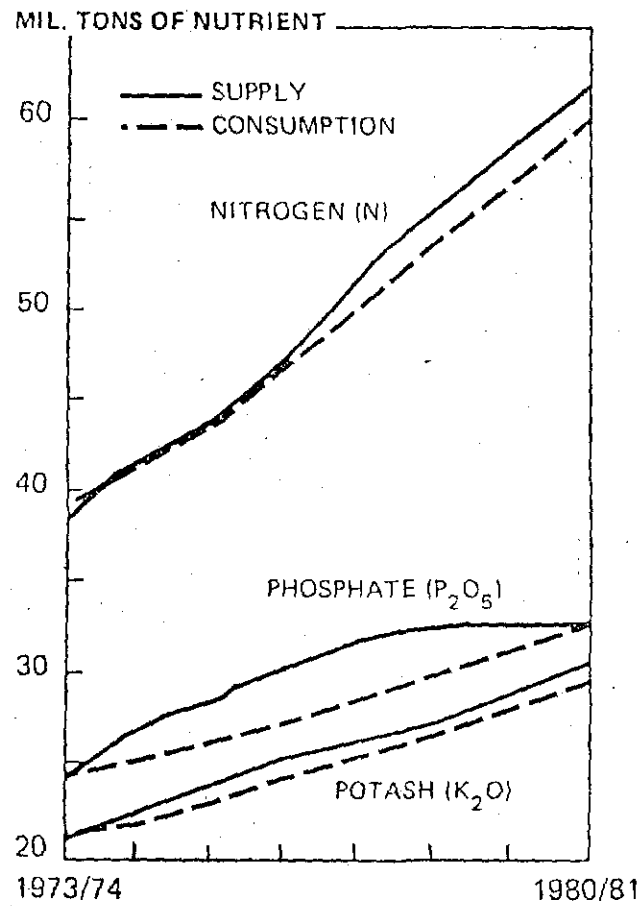


FIGURE 4

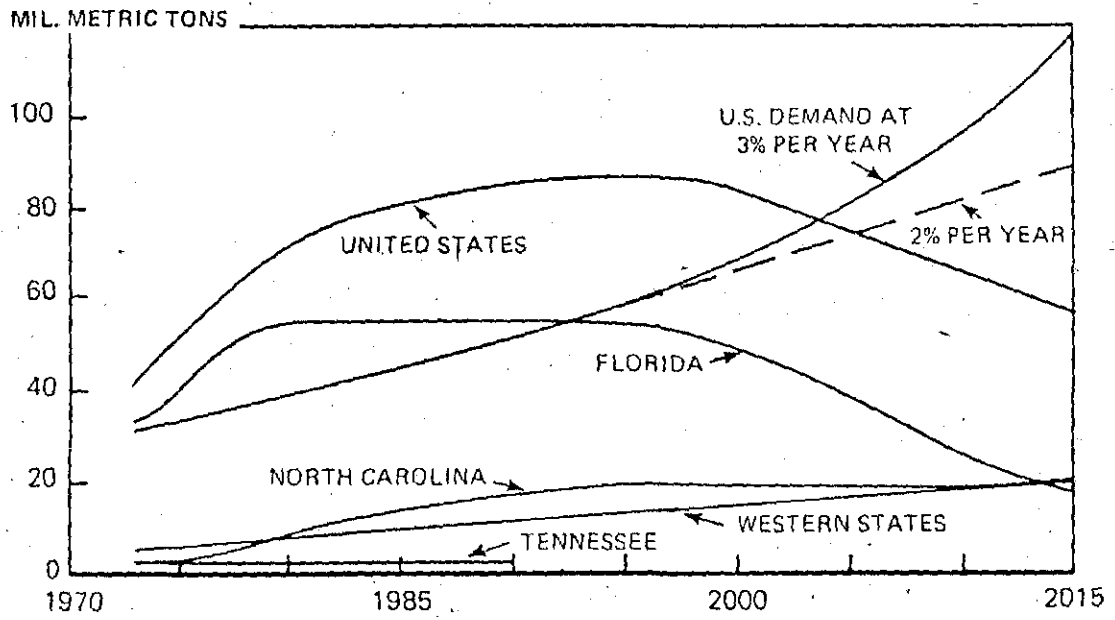
ESTIMATED WORLD FERTILIZER SUPPLY AND CONSUMPTION



SOURCE: USDA (3)

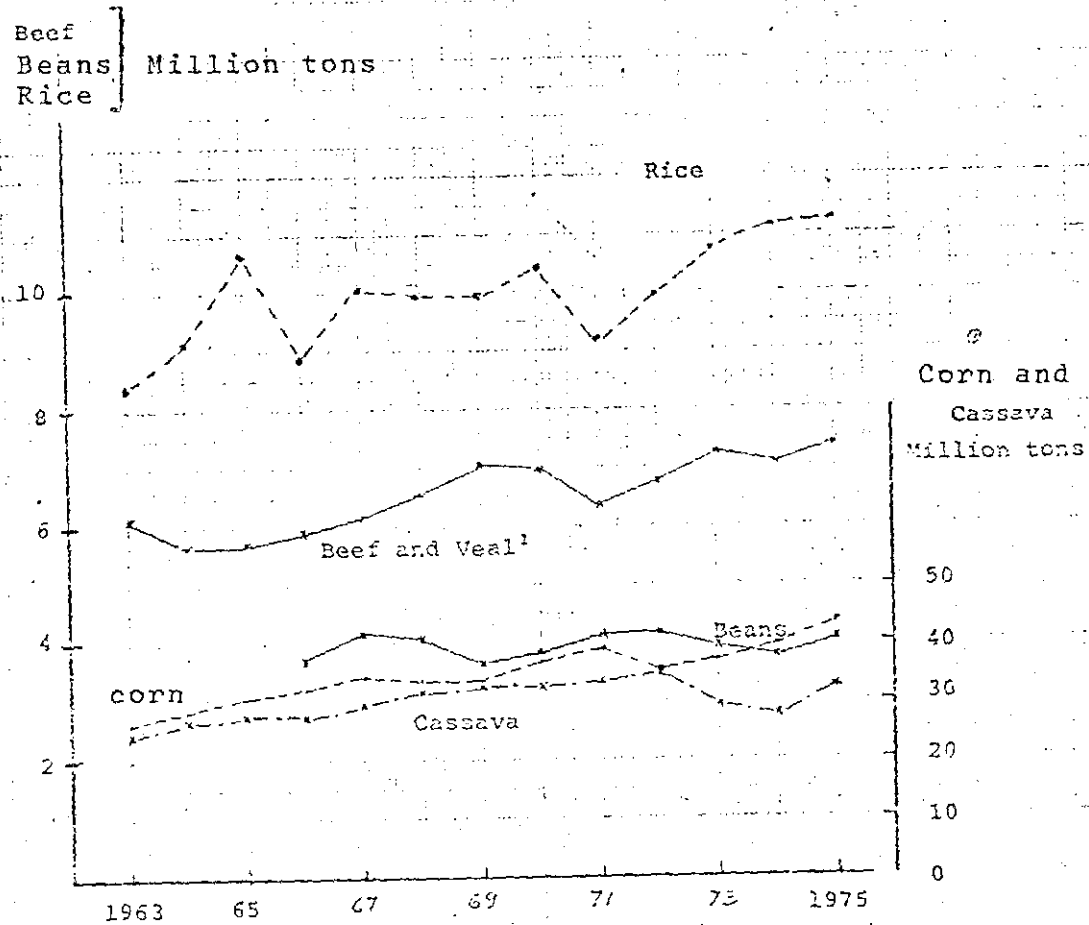
FIGURE 5

UNITED STATES PHOSPHATE ROCK
SUPPLY-DEMAND PROJECTIONS



SOURCE: BUREAU OF MINES, U.S. DEPARTMENT OF THE INTERIOR, from USDA (5)

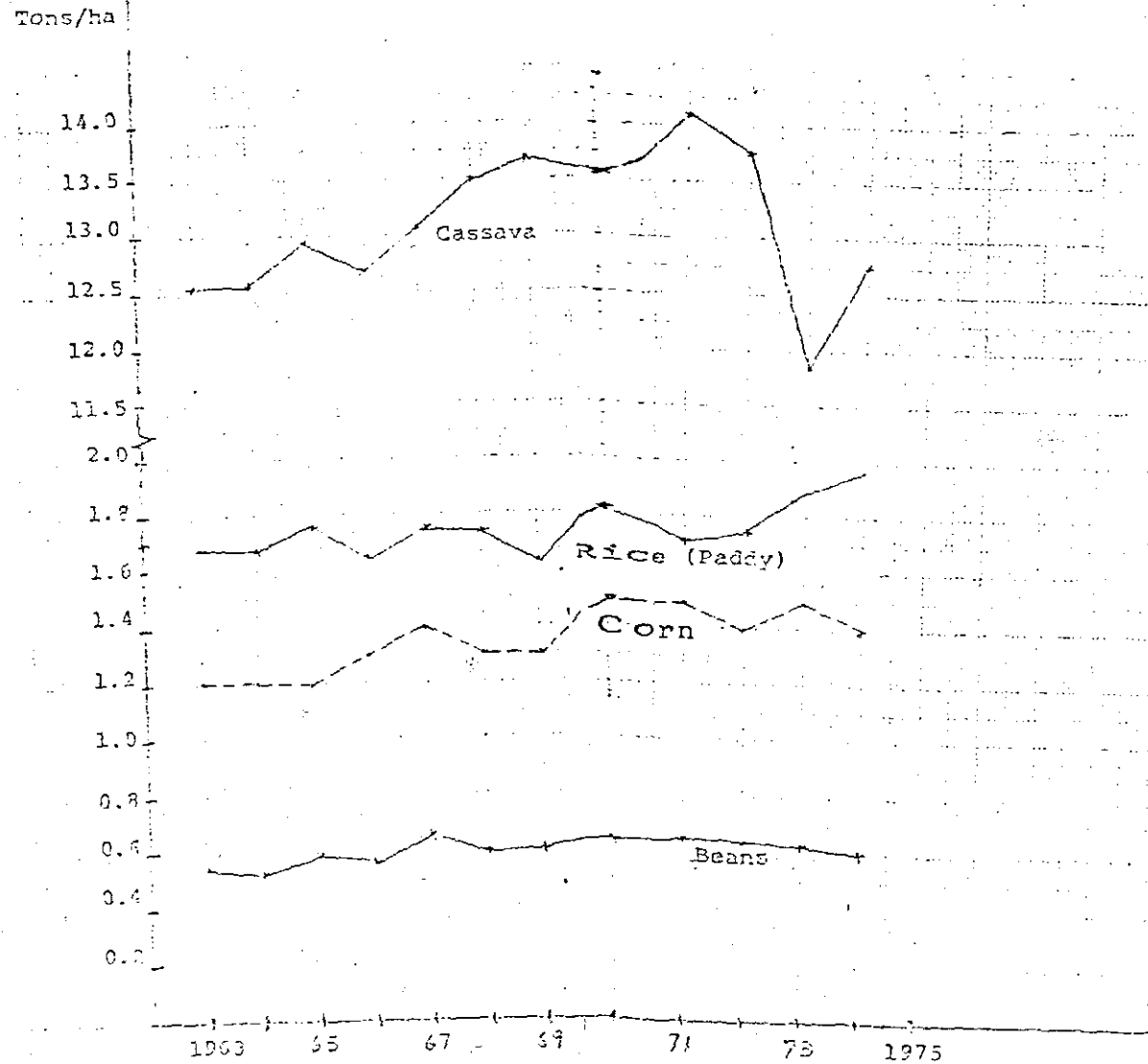
FIGURE 6. TRENDS IN PRODUCTION IN LATIN AMERICAN SELECTED PRODUCTS



¹ Slaughter only, excluding changes in stock.

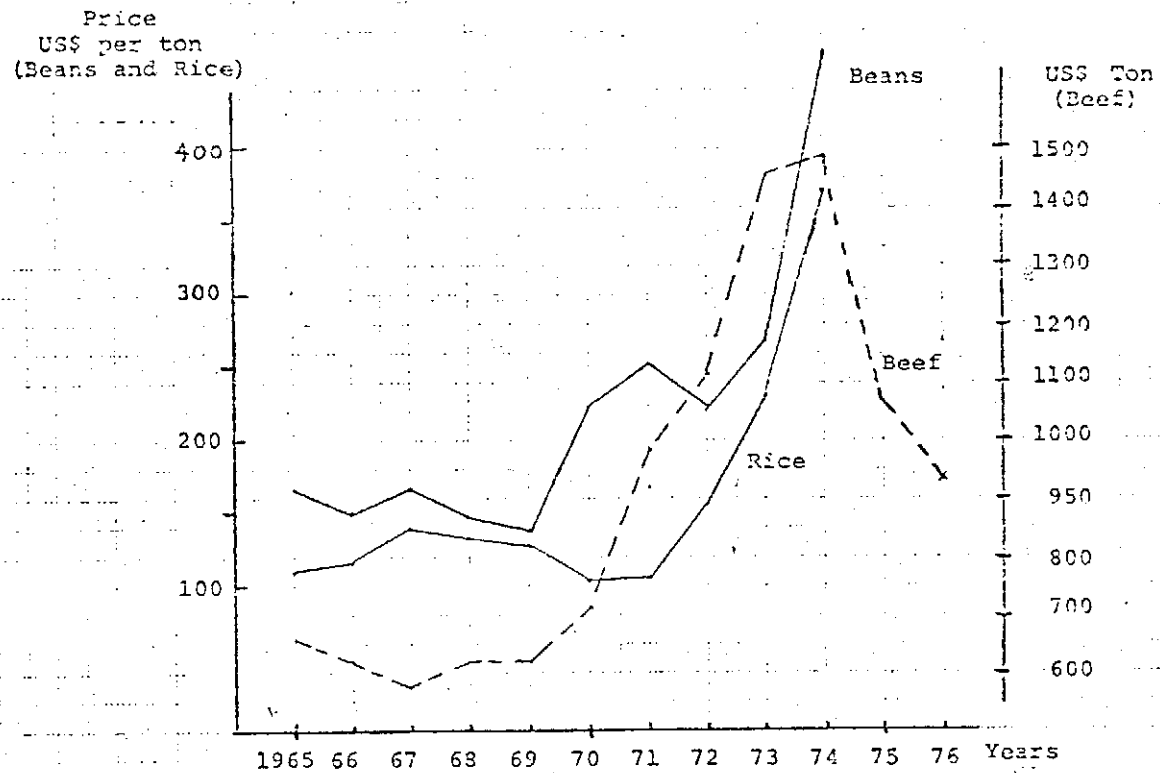
SOURCE: USDA (1) and (2).

FIGURE 7. TRENDS IN YIELDS IN LATIN AMERICA
SELECTED PRODUCTS, 1963-74



SOURCE: FAO (5)

FIGURE 8. AVERAGE UNIT EXPORT PRICES RECEIVED BY
LATIN AMERICAN EXPORTERS (VALUE/QUANTITY)



SOURCE: FAO (6)