

EIR Operation Juárez

The great projects in agriculture

Part 25

Ibero-American integration

To provide a healthy diet to the 700 million Ibero-Americans who will be living in the year 2015, agriculture must be transformed from "subsistence farming" to a modern, efficient industry. Concentrating energy, capital, and modern technology into farming will double its yields, and simultaneously open up new lands for cultivation.

This installment begins Chapter 8 of the Schiller Institute book, *Ibero-American Integration: 100 Million New Jobs by the Year 2000!* The book was published in Spanish in September 1986 and is appearing in English exclusively in *EIR*. It was commissioned from an international team of experts by the Schiller Institute's Ibero-American Trade Union Commission, to elaborate the "nuts and bolts" of the proposal by Lyndon LaRouche in 1982 for an "Operation Juárez" that will transform the huge foreign debt problem into the springboard for a regional economic boom—and an unheralded world recovery.

Numbering of the tables and figures follows that of the book.



The first thing that is required to guarantee that population density will increase, is to assure that enough food of high quality is produced for the population and for the next generation. The full development of the creative capacities of the human individual—the real driving force of economic development—requires a diet which is optimal in caloric and protein content, as well as in animal proteins. On average, to live and produce in a fully progressing society, an individual requires a daily consumption of 3,200 calories and of 100 grams of protein, 65 of those animal protein.

Food strategy will have to be, therefore, one of the central cogs in the Ibero-American Common Market. Such a strategy, moreover, will have to lead to the food self-sufficiency of the region and of each of its nations in the shortest term possible. This is not just for economic reasons, but also because Ibero-America is obviously vulnerable today in this sector, and as things stand now, would suffer seriously if a food war were unleashed, as Henry Kissinger and others have threatened. In no way is it desirable that the population's food supply remain to any important extent in the hands of the grain-cartel companies and their allies.

The clearest way to measure how capable a society is of sustaining itself today and tomorrow, is to know what percentage of its working population participates directly in producing the food this society consumes. This figure tells how large the portion of the population is, that can be freed for industrial production, building infrastructure, developing science and technology, and so forth. And, by implication, it gives us an idea of how capable this society is of prolonging the time period for the education of children and youth for the productive process, as well as of maintaining the productive life of persons of advanced age.

China, for example, has to employ 60% of its workforce

in the production of food; in contrast, the United States only needs to employ in this activity 3.5% of the economically active population, to obtain all its basic food needs and even to export.

Naturally, this depends directly on productivity, which is the same as saying that it depends on the technology used in agricultural production. The high yields of U.S. agriculture per man-hour and per unit of land surface are the outcome of a sustained effort of farm mechanization, rural electrification, intensive use of inputs, and construction of modern infrastructure. This implies, moreover, that while the ordinary U.S. farmer has to be a skilled technician, with broad knowledge of agronomy, animal husbandry, and veterinary medicine, capable of repairing machinery or interpreting satellite-transmitted weather information, the Chinese villager is submerged in thousand-year-old cultural backwardness.

If we examine the statistics of Ibero-America with this in mind, we run into the fact that the percentage of the working population that works in agriculture has declined at a steady rate over the last 20 years, from 48.3% of the economically active population in 1960 to 28.8% in 1980. But this decline, as **Figure 8-1** shows, was not reflected in a substantial increase in the ability to feed the population; rather, there has been a virtual stagnation of per capita food production. And since 1980, as a result of the "conditions" imposed by the International Monetary Fund, there is less and less food being produced, and whole zones of the region are beginning to experience famine.

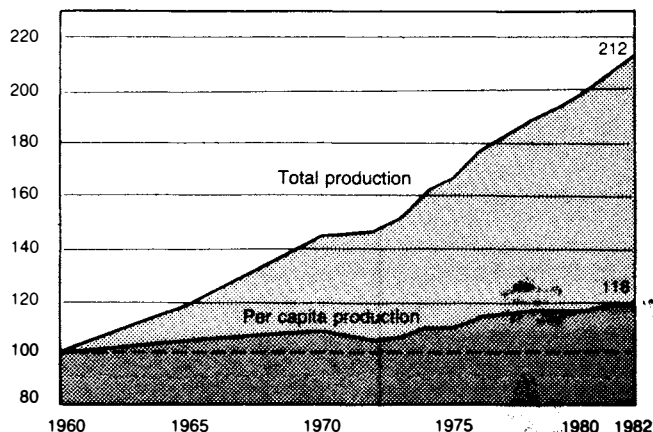
Figure 8-2 illustrates this situation. The Ibero-American population in 1980 consumed, per capita, barely two-thirds of the total protein intake needed for a healthy diet, and less than half the total amount of animal protein needed. Only Argentina had an adequate caloric and animal-protein consumption.

It is worth dwelling briefly on the case of Peru, the most malnourished of the major Ibero-American countries. As **Table 8-1** shows, the vast majority of the Peruvian population (included in the official "lower class" and "middle class" categories) in 1976 consumed less than 1,700 calories per capita per day, and some 50 grams per day of protein. But there was a dramatic drop from these already abysmal levels, and by 1979 only 1,500 calories and 45 grams of protein per capita per day were consumed—less than half the satisfactory levels.

This was the result of the criminal economic policy which was followed by the government of Gen. Francisco Morales Bermúdez (1975-80) and continued by his successor, Fernando Belaúnde Terry (1980-85), both under the direction of the International Monetary Fund. As one observes in **Table 2**, the production of the principal food products fell by about one-third between 1976 and 1983, while the economic imbecility of *reducing* hectares under cultivation by more than 10% was achieved in the same time-frame.

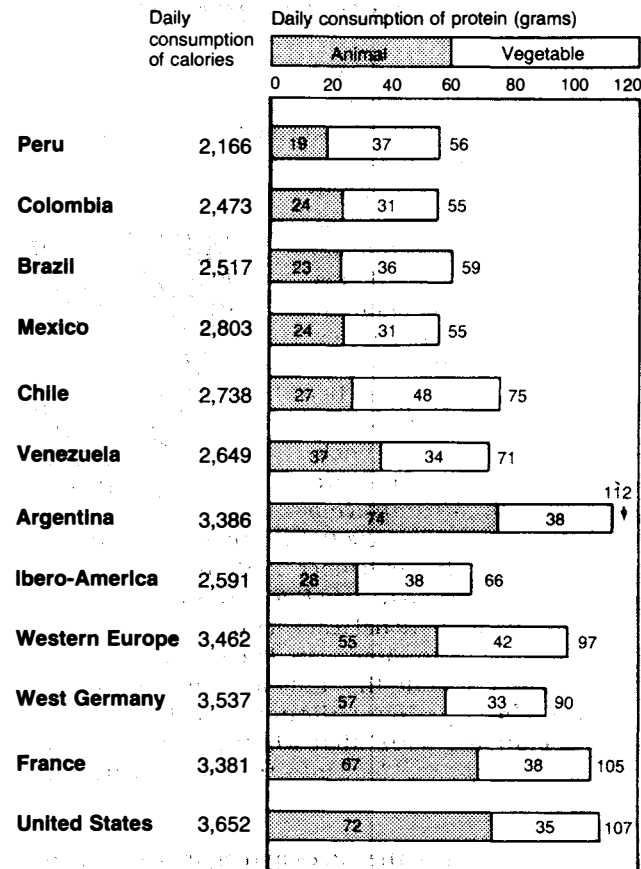
Not enough statistics are available for the last five years to document the present nutritional situation of the region.

FIGURE 8-1
Food production in Ibero-America 1960-82
(base 1960 = 100)



Source: United Nations Food and Agriculture Organization

FIGURE 8-2
Per capita nutrition, various countries 1980-82



Source: United Nations Food and Agriculture Organization

TABLE 8-1

Peru: per capita nutrition 1976-79

(daily consumption)

	1976	1979
Calories per capita:		
Lower strata	1,645	1,486
Middle strata	1,700	1,595
Grams of protein per capita:		
Lower strata	47.6	41.3
Middle strata	55.6	48.4

Source: Peruvian Ministry of Agriculture

But the proliferation of epidemics which commonly go in tandem with malnutrition is a sign of how serious malnutrition is in the region. Ibero-America will soon suffer famines like those scouring Africa, if the present direction of the farm sector does not change. Bolivia and the Northeast of Brazil are already on the verge of such a catastrophe. From 1979 to 1983, more than 3.5 million people died in the Brazilian Northeast; most of them were children. And it is calculated that of every 1,000 children born in the Northeast, 300 die of hunger and 300 of various diseases, before they reach one year of age. Of those who survive, more than 70% are malnourished.

It is difficult to appraise how much the farm crisis of Ibero-America is due to the boom in the mind-altering drugs in the last few years. But reliable Bolivian sources insist that up to 80% of the rural population of their country is totally or partially involved in the production of coca, the plant that yields cocaine as its final product. While the mafias obtain billions of dollars annually from this, Bolivia is not producing enough food to feed its own population; and to assuage their hunger pangs, the peasants chew on coca leaves.

Even the most developed countries in the region, such as Argentina, are beginning to feel the agricultural crisis. Live-stock herd reduction some years ago provoked something unusual in this country: government-ordered meatless days every week, and imports of beef substitutes.

Production and productivity

The terrible irony of this entire situation is that what is least lacking in Ibero-America are the natural conditions favorable to agricultural production, compared with other regions of the world. Table 8-3 indicates, for example, that this region, where 8% of the world's population lives, contains around 15% of the planet's land surface, and an equal portion of the land surface potentially usable for farming. But this potential is vastly underutilized, to such a degree that Ibero-America currently cultivates only 8.6% of its total land surface, that is, less than one-fourth of its potentially arable land—below

the world average.

As a result, the subcontinent's agriculture does not produce enough to feed the population as it should, because of the lack of hydraulic infrastructure to incorporate a larger cultivated area, as well as the lack of inputs and technology to cultivate it efficiently, and because a considerable part of farming activity is dedicated to producing for export.

Let us make a simple comparison, based on the figures presented in Table 8-4. Brazil, one of the most developed countries of the region, has only slightly less land area than the United States, and its population is a little less than half the U.S. population. But, in respect to grain, Brazil cultivates less than one-third of the area the United States devotes to those crops, and it obtains per hectare yields which are nearly three times lower, which results in a grain production 10 times below that of the United States.

The situation of the rest of the continent is similar. Altogether, Ibero-America's grain cropland is 20% above that of Western Europe, but it obtains a production 40% lower because its yields are very low, averaging around 2 tons per hectare, as against 4 tons per hectare in the European countries.

Table 8-4 gives a partial answer as to why there is such a marked difference. Ibero-America uses less than one-fifth of the fertilizers that Western Europe uses per unit of area, and cultivates its farmland with a level of mechanization 18 times lower than Western Europe, and 50 times below that of the United States.

Besides having such low productivity, many of the continent's countries export disproportionate amounts of food, in order to obtain foreign exchange to cover their foreign debts. Thus, for example, Brazil is in second place in the world in soybean exports, one of the best sources of vegetable protein, while its population only consumed 59 grams of

TABLE 8-2

Peru: agricultural production, main products 1976-83

(thousands of tons)

	1976	1983	% 1976-83
Cotton	165	104	-37.8
Rice	570	791	38.8
Coffee	65	91	40.0
Sugar cane	9,792	6,533	-33.3
Corn	726	595	-18.0
Potato	1,667	1,153	-30.8
Cultivated area (thousands of hectares)	1,256	1,112	-10.7

Source: Peruvian Ministry of Agriculture

protein per day in 1980. This is not an isolated case, by a long shot: Under the Belaúnde government, Peru was paying its debts to Russia with chickens, while the poor people in the cities could not buy adequate food, and were eating chicken feed!

The result is that Ibero-America as a whole exports some 25% of its agricultural production.

To guarantee a healthful diet for this population and the

coming generations of Ibero-Americans, presupposes a rapid pace of increase in the region's farm production, the reduction of exports out of the region, and the modification of the qualitative composition of farm production. Concretely: One would have to almost triple the daily per capita intake of products of animal origin (especially meat, milk, and eggs) and, in turn, reduce to less than half the consumption of products of low nutritional value, such as roots and tubers,

TABLE 8-3

World availability of arable land 1982

	Total area (millions of hectares)	Area with agriculture potential* (millions of hectares)	% of total area	Area under cultivation** (millions of hectares)	% of total area
Ibero-America	2,020	721	35.7	174	8.6
U.S. and Canada	1,835	498	27.2	237	12.9
Western Europe	373	166	44.4	95	25.5
Eastern Europe and U.S.S.R.	2,327	667	28.7	278	11.9
Asia	2,679	1,107	41.3	458	17.1
Africa	2,966	967	32.6	183	6.2
Other regions	877	516	58.8	45	5.1
World total	13,077	4,641	35.5	1,469	11.2
% Ibero-America	15.4	15.5		11.8	

*Includes cultivated land plus permanent pasture.

**Land used for both annual and permanent crops.

Source: United Nations Food and Agriculture Organization

TABLE 8-4

Profile of Ibero-American agriculture 1982

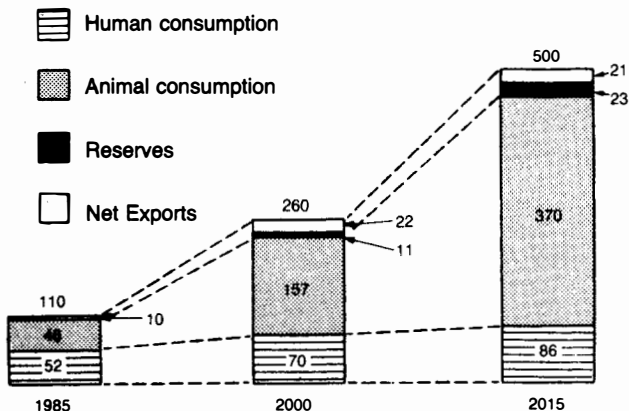
	Area (thousands of hectares)	Grain cultivation Production (thousands of tons)	Yield (tons/hectare)	Number of tractors per 1,000 employed	Consumption of fertilizer* (kilograms/hectare)
Argentina	1,962	33,609	2.41	139	5
Brazil	22,000	34,041	1.55	25	59
Colombia	1,396	3,611	2.59	10	73
Chile	649	1,507	2.32	65	26
Mexico	9,172	22,826	2.49	24	52
Peru	782	1,536	2.00	7	35
Venezuela	739	1,509	2.04	61	n.d.
Other countries	5,480	8,749	1.60	n.d.	n.d.
Ibero-America	54,180	107,388	1.98	27	48
United States	79,966	339,350	4.41	1,343	110
Western Europe	45,337	179,231	3.95	480	261

*Consumption of fertilizer in nutrient kilograms. 1980 figures.

Sources: United Nations Food and Agriculture Organization, and United Nations Organization.

FIGURE 8-3
Projection of grain production in Ibero-America 1985-2015

(millions of tons)



whose protein content per gram is almost 10 times below that of foods of animal origin and which lack, in general, the essential amino acids.

Agricultural production will have to grow at a rate of at least 6% per year in the next 15 years, and this growth will have to be oriented to producing foods of animal origin, in order for Ibero-America to eradicate malnutrition and progress most of the way toward an advanced diet, which could easily be achieved over the following 15 years by maintaining a rate of agriculture growth of 4% per year.

Concretely, grain production must increase from 110 million tons, in 1985, to 260 million tons in the year 2000, and

500 million tons in 2015 (see **Figure 8-3**). This would cover the necessary level of consumption; the formation of a food reserve of 5% of annual production; and would leave a margin for export of 10% of the product in the first 15 years and 5% in the following years. This reckoning is based on the fact that, after the year 2000, it is likely that there will be little international market for food, since self-sufficiency would be a reality in all countries.

The majority of this increase in grain production will be used to feed the livestock and poultry for producing meat, milk, and eggs. Most of the cattle which are now range-fed will have to be put into feedlots at an accelerated rate, in order to obtain the maximum efficiency in utilization of inputs, automate tasks such as milking, facilitate veterinary treatment, and free pasture lands for cultivation.

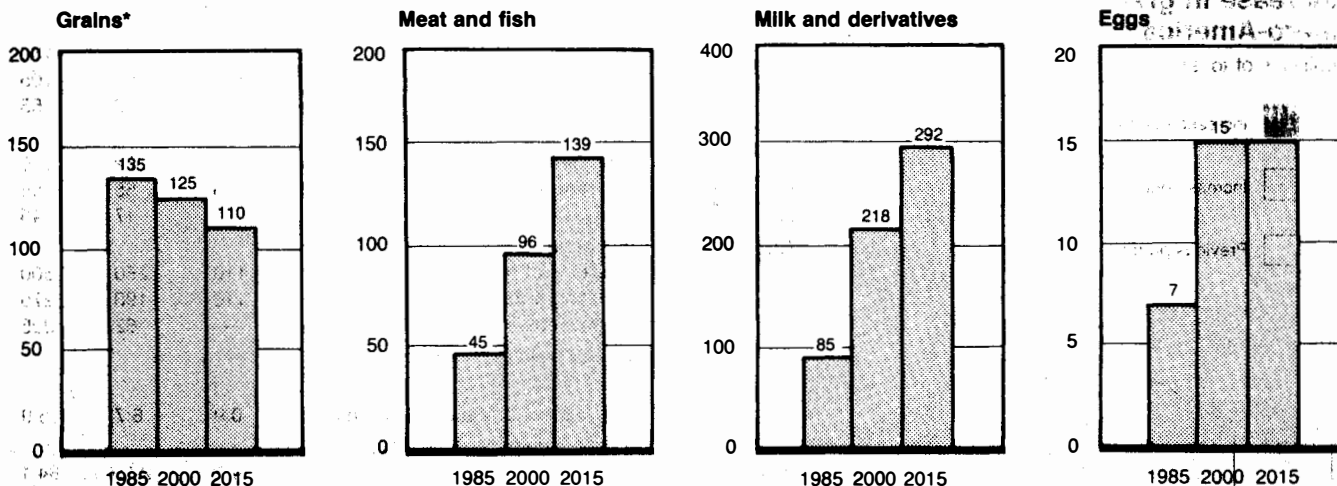
With all this, the Ibero-American countries would reach the year 2000 with a per capita daily food intake of 3,200 calories and 90 grams of protein, 55 of the latter of animal origin, very close to what the majority of Western European countries currently have. In other words, malnutrition would end. And in the next 15 years the per capita protein intake would be increased from 90 to 100 grams per day, and that of animal protein from 55 to 65 grams per day—our ultimate goal.

Figures 8-4 and 8-5 indicate the consumption levels per capita of the major food products which Ibero-America would require by the years 2000 and 2015, and the total volumes of production of those products.

Most of the increase in agricultural production will have to come, in the next 15 years, from the increase in productivity in already cultivated lands, which presupposes an extremely intense effort of mechanization and technical up-

FIGURE 8-4
Projection of food consumption in Ibero-America 1985-2015

(kilograms per year per capita)

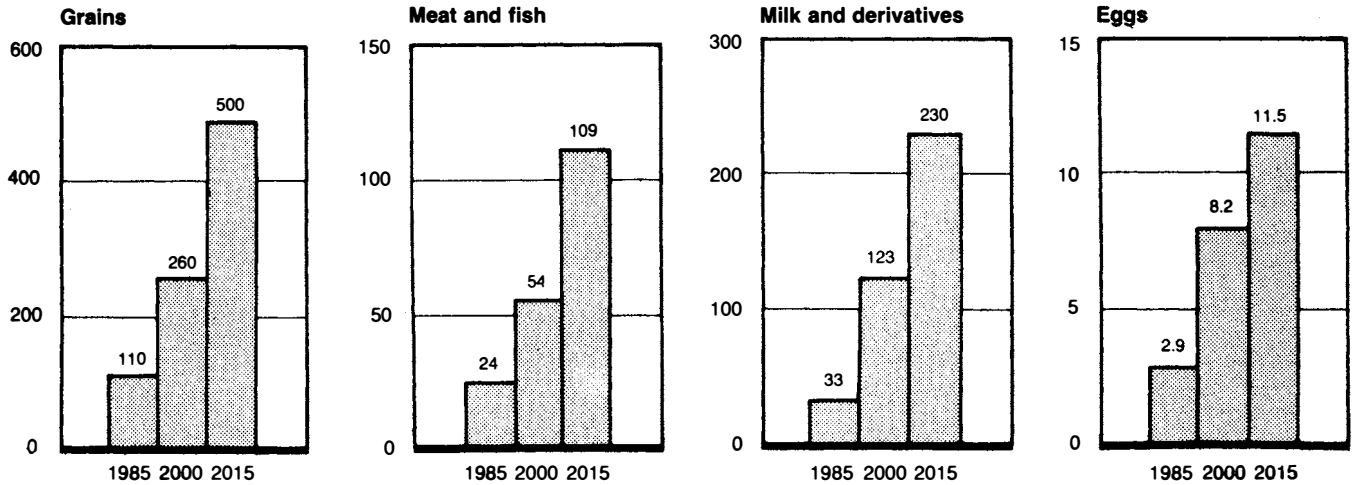


*Does not include grains for animal consumption

FIGURE 8-5

Projection of food production in Ibero-America 1985-2015

(millions of tons)



grading of farming activity. Of course, new lands will have to be opened to cultivation, something which will take on greater importance after the year 2000, at the same that satisfactory levels of productivity are achieved on the land already under cultivation (see Figure 8-6).

In respect to area, about 22 million hectares will have to be brought under cultivation between now and the year 2000, and 33 million additional hectares in the following 15 years, by which means the present area under cultivation would be increased by a little more than 50%. As far as productivity goes, the required effort implies going from an average yield of 2 tons per hectare today to 3.6 in the year 2000 and 5 in

the year 2015. To achieve this will require dramatically intensifying the use of inputs and mechanization. Concretely, between now and the year 2000 we will need to increase the number of tractors in use to nearly 7 million (7 times the current number) and the consumption of fertilizers to 28 million tons (4 times what is used today). The need for inputs and mechanization will, however, be much higher by the year 2015, as Table 8-5 shows.

FIGURE 8-6

Increase in grain production in Ibero-America 1985-2015

(millions of tons)

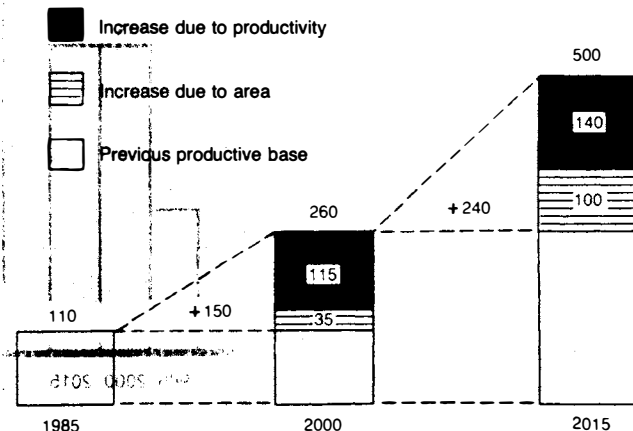


TABLE 8-5

Parameters required to increase food production in Ibero-America 1985-2015

	1985	2000	2015
Total area of cultivation (millions of hectares)			
Existing areas	105	105	105
New areas	—	22	55
Area under grain cultivation (millions of hectares)			
Existing areas	55	55	55
New areas	—	17	45
Total grain production (millions of tons)			
Existing areas	110	198	275
New areas	—	62	225
Average yield of grains (tons/hectare)	2.0	3.6	5.0
Total number of tractors (millions)	0.9	6.7	15.9
Total consumption of fertilizer (millions of tons)	7.5	27.9	84.1