

CIID



CENTRO INTERNACIONAL DE INVESTIGACIONES PARA EL DESARROLLO

OFICINA REGIONAL PARA LA AMERICA LATINA

ECUADOR: CASE STUDY

ANALYSIS OF THE AGRICULTURAL SECTOR

Work Document - First Draft

Program Support Unit - PSU - LARO
March, 1976

ANALYSIS OF THE AGRICULTURAL SECTOR IN ECUADOR

TABLE OF CONTENTS

	<u>Page</u>
Analysis of the Agrarian Sector in Ecuador	1
The Structure in Agricultural Production	2
- Land Tenure	2
- Utilization of Land	6
Production	10
Gross National Product	10
Development of Production by Crops	13

ANALYSIS OF THE AGRARIAN SECTOR IN ECUADOR

The land of Ecuador is divided into three clearly-defined regions, each with its own geographical, historical, cultural, and ethnic characteristics. These regions are traditionally referred to as the Coast, the Sierra, and the East.

The first of these is an extensive, nearly flat plain lying between steep mountain slopes and the Pacific. It is the most important economically for agriculture, although the smallest in area; having a hot climate and a January to May rainy season, this region is appropriate for tropical crops.

The Sierra is composed of two branches of the Andean chain which separate in the south at the Loja junction and join together again at Pasto. Between these two ranges lies an Interandean zone of several valleys. This region is often considered as distinct from the exterior slopes of the mountain ranges. Both areas form the Sierra, in which there are diverse degrees of fertility in the soil and varying climates.

Finally, the East is of little economic importance and is still mostly virgin lands.

Natural resources appropriate for agriculture are in the Coast and in the Interandean region of the Sierra; the first with 75% of the agricultural production and the second with 25%. The Galapagos Islands are sometimes included as a fourth geographical region, but one of little agricultural importance.

The following chart shows the extent of each region:

Distribution of Territorial Lands

Regions	Land areas (thousands of hectares)
Coastal	7,338
Interandean	4,126
Andean slopes	6,778
Eastern	25,560
Island (Galapagos)	800
Total:	44,602

Source: Ministry of Foreign Relations; National Planning Board
Program on Natural Resources

Available data refer, in their majority, to the western region of the Coast and the two sub-areas of the Sierra. Land utilization in these areas may be seen in the following chart.

The Structure of Agricultural Production

The structure of agricultural production in Ecuador falls into three clearly-defined strata: the first corresponds to agricultural exporters with well-developed business organizations vinculated with international commerce and directed by a minority group of wealthy producers. The second is an intermediary or semi-industrial level, that which supplies food and raw materials to cities and industry. More numerous than the exporters, this group represents the major demand for state assistance, both economic and technical. Finally, there is the great majority of the farm producers: small farmers isolated from the market, using backward production methods which only provide them a bare subsistence level.

The export group has shown greatest economic strength and growth and has dominated the total economy in recent years, with resulting detriment to the vast majority of producers in the country.

The discovery and production of petroleum, its generation of financial backing, and the favorable world market have transformed the Ecuadorian economy to one of mineral-agricultural exports.

Land Tenure

The Ecuadorian economy's predominately agrarian character ties an important proportion of the population to agricultural problems. Land ownership is one of the most vital of these problems, so much so that it can constitute one of the most important obstacles to economic development.

The principal characteristic of land tenure is the double standard of hacienda or plantation vs small farm ("latifundio" vs. "minifundio") and also the existence of landless peasants, the latter resulting in strong urban migration and its consequences or urban and rural unemployment.

Land tenure systems present different characteristics according to region, a basic trait we have already mentioned. The Sierra, especially

Principal Territorial Lands by Region

Appropriateness of Land for Specific Uses	R E G I O N S						Total	
	Coast		Interandean		Andean Slopes			
	Thousands of hectares	%	Thousands of hectares	%	Thousands of hectares	%	Thousands of hectares	%
Agriculture and cattle-raising	4,128	56.2	1,361	33.0	1,714	15.3	7,203	39.5
Artificial forests	498	6.8	1,749	42.4	38	0.6	2,285	12.5
Natural forests	2,531	34.5	118	2.8	5,002	73.8	7,651	42.0
Unproductive	181	2.5	898	21.8	22	0.3	1,101	6.0
Total	7,338	100.0	4,126	100.0	6,776	100.0	18,240	100.0

Source: National Planning Board and the Forestry Administration of the Ministry of Development.

the Interandean region, shows the most acute land tenure problems: large haciendas on the one hand and small farms, on the other - with small plots reaching the extremes of including only 0.35 to 0.70 hectares of arable land. Available manual labor is twice the amount necessary for harvesting; in other words, current harvests could be turned out with half the existing workers.

The Coast has a similar structure, although in it there are areas still not incorporated into production. On the other hand, the rise of the banana export industry since 1948 has seen a growth in the number of intermediate producers, those holding from 20 to 100 hectares and representing the urban middle class, a group with no ties to traditional hacienda structures or systems. This sector has great economic importance, but not the quantitative influence of the haciendas and small farms.

The eastern region is poorly developed and is still a zone of colonization processes, but the small subsistence farm is again beginning to appear as a tenure system because of the lack of demand for local farm products.

The overall panorama of land tenure, then, is that of strong pressures in the Sierra as opposed to undeveloped areas on the Coast and in the East. According to an agrarian survey in 1968 (see chart), land holdings smaller than 5 hectares (74.28%) have 10.2% of the land under cultivation, while holdings larger than 500 hectares (0.22%) have 23.54%.

In 1964 an agrarian reform law appeared, emphasizing the need to abolish customs endangering land tenure: (1) The huasipungo, or privilege of the farm worker to produce for himself from periphery lands of the hacienda in exchange for his labor for the owner; this privilege is usually accompanied by some money payment and the rights to pasture, wood, water, fish, and others. (2) The yanapa, or aid to the worker not residing on the hacienda but working there in return for payment, this usually in goods or rights to the use of natural resources and other such privileges, all making up a motley assortment of customs and payment designations according to each region. Later analyses of these systems by the agrarian reform movement pointed out that, far from ameliorating the situation, they served only to accentuate the problems of the small land holders. Some of these systems are still in existence while others have been forced by inherent

pressures to disappear, but the legalizing of the property rights of the huasipungos - the basic goal of the reforms - did not affect the large haciendas; instead it created a group of small land-owners, unable to reach markets and forced to produce on a bare subsistence level. And again, we see the migration - unemployment syndrome.

The agrarian reform movement had signed over 784,238 hectares by 1972, benefiting 49,673 families; but 75% (587,938 hectares) correspond to areas for colonization and only 25% to agrarian reform.

Number and Area of Agrarian Holdings in Ecuador

	Number of Holdings	Percent	Total Area (hectares)	Percent
TOTAL	<u>633,218</u>	<u>100.00</u>	<u>6,937,520</u>	<u>100.00</u>
Less than 1	206,273	32.58	93,018	1.34
From 1 to 5	264,074	41.70	615,556	8.87
From 5 to 10	68,527	10.82	466,315	6.72
From 10 to 20	36,228	5.72	485,572	7.00
From 20 to 50	32,746	5.16	1,018,315	14.70
From 50 to 100	15,555	2.46	976,653	14.08
From 100 to 500	8,467	1.34	1,647,904	23.75
From 500 to 1,000	922	0.15	634,554	9.15
Over 1,000	426	0.07	999,633	14.39

Source: Agrarian Survey, 1968.

This situation led the military government to issue a new reform in 1973, according to which more emphasis will be given to integrating small holdings into cooperatives and other communitarian forms of ownership and production, but respecting adequately cultivated property, whatever its size. The law also presents new planning approaches for the sector and for the reforms. In spite of all this, enforcing the new law has created

multiple problems - administrative, political, economic, technical, etc. - slowing down its impetus and application. The following chart illustrates the situation:

Projected and Completed Projects of Agrarian Reform

	Goals 1973 - 1977		Completed	
	Total	Annual	1973	1974
Families incorporated	75,000	15,000	1,136	2,993
Area in hectares	863,000	172,600	8,134	24,890

Source: Integrated Plan for Transformation and Development and the IERAC Report.

The total area programmed for reallocation is 750,000 hectares of established settlements and 113,000 of colonization areas.

In the following chart we can see the growing emphasis on agrarian reform eliminating precarious forms of tenure rather than on production.

Utilization of Land

Between 1973 and 1974 the increase in areas dedicated to agricultural activity has been 3.7% and in the sub-sector dedicated to cattle is 2.8%, as can be seen in the following chart.

Amplification of areas under cultivation has been concentrated according to the following types of products: garden stuffs (12.9%), fats and oils (9.1%), textile fibers (82.9%), sugars (12.9%), and beverages and tobacco (3.1%). The relation between cattle and agriculture, in spite of the increases in land area for each, is similar to that of earlier years.

Number of Families Receiving Colonization and Agrarian Reform Holding, by Type
of Regional Intervention

A G R A R I A N R E F O R M									
		General Total	Colon- ization	Agrarian Reform Total	Type of Intervention				
					Negotiations Reservations Expropriations	Parcelling of State Haciendas	Liquidation of Precarious Land Tenure Systems		
							Total	Yanapa	Huasipungos
1973	<u>National Total</u>	<u>3,917</u>	<u>2,781</u>	<u>1,136</u>	<u>226</u>	<u>569</u>	<u>341</u>	<u>164</u>	<u>177</u>
	Sierra	1,616	568	1,048	138	569	341	164	177
	Coast	603	515	88	88	-	-	-	-
	East	1,618	1,618	-	-	-	-	-	-
	Galapagos	80	80	-	-	-	-	-	-
1974	<u>National Total</u>	<u>5,737</u>	<u>2,744</u>	<u>2,993</u>	<u>780</u>	<u>189</u>	<u>2,024</u>	<u>1,878</u>	<u>46</u>
	Sierra	1,665	597	1,068	431	189	398	352	46
	Coast	2,662	737	1,925	299	-	1,628	1,626	-
	East	1,191	1,191	-	-	-	-	-	-
	Galapagos	219	219	-	-	-	-	-	-

Source: IERAC.

Estimates on Land Utilization, 1973-1974 (Hectares)

Utilization	1973		1974		Increase %
	Hectares	%	Hectares	%	
Agriculture	2,099,170	7.46	1,176,940	7.74	3.7
Cattle	2,314,260	8.22	2,380,000	8.46	2.8
Forests	17,200,000	61.14	14,230,000	61.24	0.18
Other lands	6,520,670	23.18	6,372,160	22.65	-2.27
National Totals:	28,134,100	100.00	28,134,100	100.00	

Source: Based on MAG estimates of areas harvested and area calculations in Ecuador, cited in "Analysis of Agrarian Activities, Ministry of Agriculture and Cattle Raising", August, 1975.

The growth of harvested land areas since 1970 shows an average annual increase of 3.03%, for a total of 12.1% for the period. This augment has been concentrated in cattle lands, growing 26.4% since 1970, while those dedicated to agriculture have declined by 3.8%. The following chart shows the land development indexes for diverse products since 1970.

In the chart we can note a marked tendency toward growth in areas dedicated to tubers and roots (cassava), to fats and oils (grains, peanuts, African palm, and soybeans), to fibers (hemp and raw cotton), and to beverages (coffee and tea). Among these, some high index crops deserve note: peanuts (315.1), soybeans (505.4), hemp (398.4), cotton (526.7), and tea (359.6); all these crops are industrialized and presuppose the use of high level, technical production methods.

The strong growth index of areas cultivated in the afore-mentioned products reveals their rising position in the total agricultural product; however, a greater importance in relation to areas under cultivation

Development Indexes Since 1970

	1970 Index	1971 Index	1973 Index	1974 Index
Grains and cereals	98.9	97.9	81.4	81.0
Roots and tubers	109.3	96.0	117.7	106.2
Vegetables	71.7	77.8	67.6	63.5
Fruits	95.8	92.0	89.0	98.4
Fats and oils	159.1	154.3	226.3	247.3
Fibers	97.8	162.5	280.0	504.2
Beverages and tobacco	98.1	99.3	99.4	102.4
Other products	83.3	72.4	72.6	82.1
Agricultural subtotal	98.5	96.7	92.2	96.2
Farming and cattle				
Total	<u>108.2</u>	<u>106.8</u>	<u>108.4</u>	<u>112.1</u>

Source: MAG Estimates, cited in "Analysis of Agrarian Activities, Ministry of Agriculture and Cattle-Rasing", August, 1975.

still corresponds to traditional crops, whose distribution remains more or less stable, as can be seen in the following percentage scales of production.

In relation to areas under cultivation, the most important crops are the following: coffee (5.77%), cocoa (5.52%), hardkernel corn (4.02%), bananas (3.93%), sweet corn (2.73%), rice (2.56%), and sugar cane (2.50%). These crops involve 27.0% of the total agrarian land area and 66.3% of the agricultural area.

Percentage Break-down of Areas under Cultivation, 1970-1974

Products	1970	1971	1972	1973	1974
Grains and cereals	20.39	18.64	18.68	15.30	14.72
Roots and tubers	2.71	2.39	2.13	2.57	2.24
Vegetables	0.43	0.29	0.32	0.27	0.25
Fruits	7.17	6.35	6.18	5.89	6.29
Fats and oils	0.89	1.31	1.29	1.86	1.97
Fibers	0.29	0.27	0.45	0.76	1.33
Beverages and tobacco	12.45	11.28	11.57	11.42	11.37
Other products	3.47	2.68	2.35	2.33	2.54
Agricultural subtotal	47.46	43.21	42.97	40.40	40.71
Farming and Cattle Total	100.00	100.00	100.00	100.00	100.00

Source: Ministry of Agriculture, cited in "Analysis of Agrarian Activities Ministry of Agriculture and Cattle-Raising," August, 1975.

PRODUCTION

Gross National Product

Between 1970 and 1974, the contribution of the agrarian sector to the gross national product decreased from 29.3% to 22.3%. This is attributable to the fact that the growth rate of this sector is lower than that of other areas, especially in comparison with that of mineral products, in which petroleum figures with growing importance. But in spite of its decreasing contribution, the agrarian sector remains the most important segment of the economy and will continue to be so in coming years due to the population it encompasses and its role as a generator of capital, food-stuffs, and work opportunities.

Composition of GNP by Cost of Contributing Areas, 1970-1974

(Millions of Sucres, 1970)

Sectors	1970		1973		1974	
	Value	%	Value	%	Value	%
Agriculture, hunting, forestry, and fishing	8,804	19.3	1,261	24.0	9,450	22.3
Mines and quarries	449	1.5	3,645	9.4	3,329	7.9
Manufacturing	5,713	19.0	7,176	18.6	8,012	19.0
Electricity, gas, water	418	1.4	466	1.2	479	1.1
Construction	1,387	4.6	1,790	4.6	1,957	4.6
Others	13,337	44.2	16,235	42.2	19,079	45.1
Total GNP	30,108	100.0	38,573	100.0	42,306	100.0

Source: Central Bank of Ecuador, cited in "Analysis of Agrarian Activities, Ministry of Agriculture and Cattle-Raising, August 1975.

The agrarian sector's decline of importance in the total economy especially worries Ecuadorian planners, because its growth rate has become inferior to that of the population, the latter being 3.4% while the former has been only 1.8%, as seen in the following chart.

Regarding the contribution to the gross national product by the various sub-groups in agrarian production, we note a decrease for the agricultural sector and an increase for cattle and fishing, with forestry remaining stable, between 1970 and 1974.

Meat and dairy cattle interests have received vigorous stimulus through breeding-cattle imports, provisions for credit, technical assistance, etc. Predominant here are medium-sized and large operations with capacities to implement such incentives.

Growth Rates by Sectors, 1970-1974

Sectors	1971	1972	1973	1974	Average 1970-74
Agriculture, hunting, fishing	2.3	0.4	2.5	2.0	1.8
Mines and quarries	43.2	159.4	118.5	-8.7	65.0
Manufacturing	8.6	7.3	7.8	11.6	8.8
Electricity, gas, water	5.5	4.1	1.5	2.8	3.5
Construction	44.1	-21.7	14.4	9.3	8.9
Others	1.5	8.5	10.6	17.5	9.3
Total GNP	5.7	7.0	13.2	9.7	8.9

Source: Central Bank of Ecuador, cited in "Analysis of Agrarian Activities, Ministry of Agriculture and Cattle-Raising", August, 1975.

Contribution Percentages by Sub-Groups in Agrarian Production

Sub-Groups	1970	1974
Agriculture	67.9	61.9
Cattle	21.9	27.4
Forestry	7.5	7.6
Fishing	2.7	3.1
Total	100.0	100.0

Source: Central Bank of Ecuador, cited in "Analysis of Agrarian Activities, Ministry of Agriculture and Cattle-Raising," August, 1975.

In the agrarian sub-group, on the contrary, there are large numbers of subsistence-level producers but a reduced number of empresarios and semi-empresarios who, although they maintain high production levels, can not outweigh the impact of the former.

DEVELOPMENT OF PRODUCTION BY CROPS

Of the products basic for national consumption, a decrease is observable in the production of wheat, sweet corn, barley, sesame seed, and potatoes, although there has been a tendency toward recuperation in wheat and sesame seed since 1973.