

1000-19-3-100

INTERNATIONAL RESEARCH DEVELOPMENT CENTER
LATIN AMERICAN REGIONAL OFFICE
PROGRAM SUPPORT UNIT

Bogota, May 1976

- . -

NATIONAL DEVELOPMENT POLICIES
INFORMATION ON RESEARCH POLICIES
ACTIVITIES AND NEEDS

- . -

v.1

ECUADOR : Case Study
Analysis and Policies of the Agricultural Sector

1000-19-3-263

AP-110
(31(2-4))
I 3
V. 1

022200

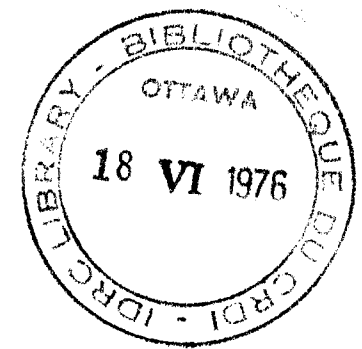


TABLE OF CONTENTS

Page

Introduction

I.	ANALYSIS OF AGRICULTURAL SECTOR IN ECUADOR	1
1.	Territorial Resources	1
2.	The Structure of Agricultural Production	2
3.	Land Tenure	2
4.	Utilization of Land	6
5.	Production	10
5.1	Gross National Product	10
5.2	Production Development in Different Crops	13
5.3	Market Values of Production	15
5.4	Yields	16
6.	Inputs for Agricultural Production	18
6.1	Seeds	18
6.2	Fertilizers	19
6.3	Pesticides	20
6.4	Mechanization	20
6.5	Technology	21
7.	Employment	22
7.1	Population	22
7.2	Agrarian Unemployment and Under-employment	22

8.	Foreign Trade	24
8.1	Exports	24
8.2	Imports	26
8.3	Agricultural Trade Balance	27
9.	Financial Resources	28
9.1	Credit	28
9.2	Government Funds	29
II	AGRICULTURE SECTOR'S POLICIES AND ACTIVITIES	31
1.	Description of Policies	31
1.1	Policies on the Use of Renewable Natural Resources	31
1.2	Strategic Policies	32
1.3	Economic Policies	33
1.4	Stimulus to Production	35
1.5	Sectorial Planning	36
1.6	Institutionalization of the Agricult- ural Sector	37
1.7	Sub-Regional, Regional and World Agricultural Policy	37
1.8	Summary	39
2.	MAG's Operation Problems in 1974	40
3.	MAG's Principal Activities during 1975	40
	Appendix	43
	Bibliography	

INTRODUCTION

This document summarizes the most outstanding characteristics of Agriculture and Cattle sector in Ecuador, as well as its government political situation and main action. It has been elaborated based on studies carried out by local and International Organizations, extracting from those studies the information and analysis that could give a brief but complete insight of the sector's problems and of the efforts being made to face them.

The International Development Research Centre (IDCR), through its Latin American Regional Office (LARO), has been carrying out studies within the region to determine the needs for research in each country and the specific characteristics of the studied sectors, in order to orient its activity in relation with those factors. In the case of Ecuador, the analysis of the agriculture and cattle sector is the first stage of the study on the research needs in the area. For this study, we have counted with the valuable cooperation of the members of the National Planning Board, the Ministry of Agriculture and Cattle, and the INIAP.

I. ANALYSIS OF AGRICULTURAL SECTOR IN ECUADOR

1. Territorial Resources

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 extense, 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. (next page)

2. 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.

3. 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 of 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, p. 5), 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, fishing, 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 good 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 problem 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.

4. 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 (p.9) 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-Raising," 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.

5. Production

5.1 Gross National Product

Between 1970 and 1974, the contribution of the agrarian sector to the gross national product decreased from 19.3% 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.

Compositon of GNP by Market Value 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 (p. 12).

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.

5.2 Production Development in Different 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.

Development in Production 1970-1974

Internally-Consumed Products

Products	Variation 1973-1974 %	Variation 1970-1974 %
Wheat	21.7	- 32.1
Rice	13.6	29.6
Sweet corn	- 24.0	- 54.6
Hard kernel corn	21.1	82.9
Barley	- 29.3	- 49.0
Peanuts	37.0	226.0
Soybeans	184.6	629.7
Sesame seed	87.3	- 25.8
African palm	30.0	282.3
Potatoes	- 6.6	- 7.1

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

The development shown in the graph is a source of concern for the Equadorian government in that, if observed tendencies continue, it will be necessary to make increasing food imports; of wheat is most problematic here, as the high demands for it are fundamentally satisfied by imports.

Export production's 1970-74 development is shown in the following graph:

Development in Production 1970-1974

Products	Variation 1973-1974 %	Variation 1970-1974 %
Banano	6.1	- 7.9
Coffee	- 8.9	7.4
Cocoa	45.3	69.3
Sugar	21.4	- 12.9
Cotton	114.3	454.8
Hemp	100.0	93.3
Tea	- 16.6	- 65.4
	30.7	2.542.7

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

There is noticeable growth in cotton and hemp, although - as we will see later - the exports of bananas, coffee, sugar, and cocoa, continue to be predominant.

In cattle-raising the situation has been more favorable than in agriculture and, as seen in the following graph, there has been important growth in production, improving the internal supply.

Development of Production 1970-1974

Meat and Dairy Products

Products	Variation 1973-74 %	Variation 1970-74 %
Beef	4.2	19.6
Pork	8.1	34.7
Mutton	3.3	14.3
Fowl	9.1	83.4
Milk (unpasteurized)	0.9	6.1
Eggs	13.3	57.6

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

5.3 Market Values of Production

The agrarian sector as a whole has shown a rise in production from 1970 to 1974 of 10,278,220 Sucres to 11,866,807 Sucres, an increase of 15.46%.

A percentage break-down of the production values and their development can be seen in the following chart.

A tendency to a relative decrease in the amount produced by agriculture can be seen, compared with a tendency toward increases in the cattle sector.

In regard to the money value of their production, the most important products are, in order: bananas, milk, coffee beans, beef, cocoa beans, plantains, potatoes, rice, sugar cane, pork, and fowl. In 1974 these products represented 67.7% of the value of production.

Structure of Production Values in Agriculture by Groups of
Products, 1970-74

Sub-Areas	1970	1971	1972	1973	1974
Agriculture	69.54	67.59	64.73	65.14	67.73
Cattle	28.53	30.45	33.32	32.88	30.33
Hunting and Fishing	1.92	1.95	1.94	1.96	1.92
Wildlife	0.01	0.01	0.01	0.02	0.02
TOTAL	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.

5.4 Yields

The principal characteristic of the development of yields in agriculture between 1970 and 1974 is a slow increase, or a decrease in some products considered staples.

The following graph shows the ratios among indexes of production, areas harvested, and yields in 1974 and their relationship in 1970.

According to the graph, in the first group of products (rice, cocoa, tobacco) the increases in production have been obtained by increased yields per hectare.

Indexes of Production, Area Harvested, and Yields per
Hectare for a Group of Products 1970-74

	Production 1974	Area Harvested 1974	Yield per Ha. 1974
White rice	129.6	118.6	109.2
Cocoa	169.3	97.2	174.0
Tobacco	104.2	85.9	121.3
Hard kernel corn	182.9	201.6	90.7
Coffee	127.4	107.9	99.5
Barley	51.0	45.4	112.4
Potatoes	92.9	82.9	112.1
Bananas	92.1	81.5	117.5
Sesame seed	74.2	71.6	103.3
Sugar cane	87.1	83.3	104.5
Plantains	172.0	161.1	106.6
Peanuts	326.0	315.1	103.5
Soybeans	729.7	505.4	144.3
Cotton (in the boll)	554.8	526.7	105.3
Tea	2,642.7	359.6	734.4

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

In the cases of hard-kernel corn and coffee, increases are due to expansion of harvested areas. In the third group, meanwhile, harvests have diminished (i.e., barley, potatoes, bananas, sesame seed, and coffee) because of a decrease in harvested areas which has offset increases in yields.

Finally, the products in the fourth group have shown production increases due to expansion of areas under cultivation.

According to the above, it can be affirmed that increases in agricultural production in recent years owe more to amplification of areas under cultivation than to the application of technological methods.

6. Inputs for Agricultural Production

6.1 Seeds

The availability of certified seed has increased notably for crops such as sesame seed, soybeans, rice, hard-kernel corn, cotton, potatoes, and wheat.

The following graph shows the ratio between areas using certified seeds and the total area planted for each of the major products:

Ratio Between Areas Benefitted by Certified Seed and Total

Area Planted for Various Crops 1973-1973

	Area Planted (hectares)		Area Benefitted by Certified Seed (hectares)		Relation Area Benefitted/Area Planted %	
	1973	1974	1973	1974	1973	1974
Peanuts	15,860	20,020	753	750	4.7	3.7
Sesame seed	1,030	1,990	8,089	10,110	-	-
Soybeans	1,580	3,170	2,540	2,962	-	-
Wheat	47,430	57,390	467	3,692	0.1	6.4
Barley	95,970	62,670	8,991	8,991	9.4	14.3
Rice	88,150	106,790	4,941	14,822	5.6	13.9
Hard Kernel corn	145,080	166,490	13,635	27,275	9.4	16.4
Grains	50,470	48,340	3,957	7,913	7.8	16.4
Potatoes	47,930	48,220	100	133	0.02	0.03
Cotton	24,220		27,427	32,671	-	67.8

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

The ratio in the cases of sesame seed, soybeans, and cotton shows greater availability of certified seeds than is required, while for the other products this figure remains low. Here a lack of seed production planning is noteworthy and this points insistently toward greater efforts in such production for the majority of the crops.

6.2 Fertilizers

In the period 1970-1974 the use of fertilizers showed an ascending tendency which marked, by 1973, nearly 60,000 tons but which had declined again in 1974 to the level of 1970. Note the following graph:

Consumption of Fertilizers for a Five-Year Period 1970-74

(Metric tons of pure nutrients)

	N	P2 O5	K2O	Total NPK
	Index	Index	Index	Index
1970 (base)	100	100	100	100
1971	85.5	85.33	67.31	80.60
1972	130.92	121.02	84.79	116.60
1973	286.61	308.18	56.0	258.41
1974	97.94	112.41	89.26	100.05

Source: FERTISA and National Fertilizer Commission, cited in "Analysis of Agrarian Activities"; Ministry of Agriculture and Cattle-Raising, August, 1975.

The major cause of the 1974 decrease was a rise in national prices due to the world market, especially important for fertilizers, the supply of which depends on foreign raw materials.

The use of fertilizers is concentrated principally on African Palm, sugar cane, rice, cotton, potatoes, and wheat and is

capitalized on mainly by medium-sized and large producers. The tendency toward rises in the price of fertilizers has made it less profitable, and this tendency continues in the data available for June 1975.

6.3 Pesticides

In the use of pesticides, the trend is slightly different from that of fertilizers, as can be seen in the following graph.

Index of Availability of Pesticides, Based on 1970

	1970	1971	1972	1973	1974
Insecticides	100	98	56	122	160
Fungicides	100	109	77	138	91
Herbicides	100	109	102	180	354
Vermicides	100	135	427	1,397	16,621
Emulsifiers and Adherents	100	296	136	237	257
Similar elements	100	86	52	82	113

There is a substantial increase in the use of herbicides and vermicides for the period. In a lesser degree, there is also an increase in insecticides, adherentes, and emulsifiers, with a decrease in 1970 but followed by a recuperation. The overall tendency notable is an augment for all areas.

6.4 Mechanization

There is a relatively low implementation of farm machinery. There are 2,678 tractors in Equador, with a ratio of 621 hectares per machine - this ratio being the lowest of all the countries in the Andean subregion. Five percent of these machines are in the hands of the public; the rest are privately owned and are concentrated mainly in operations of over 100 hectares, 30% of which

use machinery. In intermediate-sized farms (5 to 100 hectares), only 41% use some form of machinery, and those of less than 5 hectares, only 0.9%. Coupled with this problem, it must be added that the use of machinery has contrary effects on employment; because of this, rigorous planning must accompany the use of it.

6.5 Technology

The situation briefly described in earlier pages shows the scarcity of technological development in Ecuador in the areas of certified seeds, fertilizers, pesticides, and machinery. This relatively low technological level explains the reduced productivity of the country's agriculture. This situation is illustrated clearly by comparing yields obtained in experimental stations under optimum cultivation conditions with average national yields.

Productivity Levels for Various Crops

(In Kg./Ha.)

	National Average Yield	Experimental Yield Average	Percentage National vs. Experimental Yields
Rice	2,680	9,000	29.8
Barley	880	4,100	21.5
Wheat	1,120	5,900	19.0
Hard kernel corn	1,050	6,000	17.5
Sweet corn	1,010	7,200	14.0
Sesame seed	760	1,450	52.4
African palm	330	4,200	31.6
Soybeans	922	3,500	26.3
Peanuts	935	4,500	20.8
Bananas	17,388	45,400	38.3
Coffee	260	2,700	9.6
Cocoa	210	2,200	9.5

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

It can be seen that the **cereals** group achieves less than a fourth of the yield obtained in experimental stations. Fats and oils are in a more favorable situation, and sesame seed production on the national level yields 52% of that of the experimental stations. This is, however, an exception, and yields are generally low in other cases.

7. Empoyment

7.1 Population

Ecuador has a total population of 6.5 million people, concentrated principally in the Sierra and Coast regions. According to the Third Population and Housing Census, 1974, each of the two areas contains 49% of the population.

The rural population is 58%, with a concentration of 1.9 and 1.7 million inhabitants in the Sierra and Coast respectively.

Demographic pressure is very high, especially in the Sierra. The proportion of land per inhabitant is 0.66 hectares, and in some provinces as low as 0.14 and 0.25. As seen earlier, this situation is reflected in and aggravated by a dichotomy of large and small holdings and in a very low utilization of the labor force.

7.2 Agrarian Unemployment and Underemployment

Studies carried out in respect to the supply of and demand for labor in agriculture show that the latter is much less than the former. For 1968 calculations were made for the demand for workers which gave a result of 657,000 jobs for an active rural population of 983,000 - an unemployment figure of 326,000 or 32% of the total. This figure is distributed between open unemployment and part-time work in an unknown proportion.

Making the same calculations for 1973 and considering population and production increases and changes in the means of production, a total requirement of 628,000 jobs for an active rural population of 1,150,000 can be reached. This presents a figure of 562,000 unemployed workers, or 45%.

Labor Requirements According to Size of Farm

1968

	Number of farms ¹		Area of farms		Required Jobs ¹	
	Thousands	%	Thousands	%	Thousands	%
Less than 5 hectares	470.3	74.3	708.5	10.2	169	25.7
5 to 50 has.	137.5	21.7	1,970.2	28.4	176	42.0
More than 50 hectares	25.4	4.0	4,258.6	61.4	212	32.3

¹ Calculated using three technological categories for each size and supposing that 2.65 work days correspond to a full-time job. There was no correction made for uncultivated areas or uncomputed activities

Source: Agrarian Poll 1968 and figures from the PREALC-OEA Mission, cited in "Analysis of Agrarian Activities," Ministry of Agriculture, Ministry of Agriculture and Cattle-Raising," August, 1975.

These approximate figures reveal the magnitude of the problem and its progressive worsening. There are, on the other hand, regional differences about which no numerical data are available, but which can be established with enough certainty: coastal production in 1973 absorbed 52% of the agrarian work force, making the situation less serious than in the Sierra, where the population concentration is greater. Work opportunities in the Coast are vinculated with an economy based on medium-sized export operations.

In contrast, in those regions where population pressures on the land are relatively less, there is an occasional shortage of labor in peak periods of planting and harvesting, though the work situation is unfavorable during the rest of the year.

8. Foreign Trade

8.1 Exports

In the years since 1970, Equadorian exports have undergone an important change because of the growing importance of the petroleum industry. Before 1970 the export of agricultural products produced the greatest profits for the country and to-day maintains its place of importance, although petroleum exports have surged ahead.

Contribution of Agriculture to Total Export Market Values 1970-1974

(Millions of Dollars)

Products	1970	1971	1972	1973	1974
<u>Primary Products</u>	<u>170.9</u>	<u>170.0</u>	<u>291.2</u>	<u>482.9</u>	<u>942.5</u>
Agriculture	164.4	163.7	225.7	194.1	318.5
Petroleum	0.8	1.1	59.5	282.1	614.6
Others	5.7	5.2	6.0	6.7	9.4
<u>Industrial Products</u>	18.9	28.9	35.0	49.1	107.8
Agricultural origin	12.8	21.8	23.1	29.0	79.2
Manufacturers	2.8	3.1	5.3	10.9	17.0
Others	3.3	4.0	6.6	9.2	11.6
TOTAL	189.9	199.0	326.2	532.0	1,050.3
Contribution of agricultural products	93.32	93.20	76.27	43.25	37.87

Source: Through 1973: Exterior Commerce Annals. For 1974, based on export licenses, cited in Analysis of Agrarian Activities, Ministry of Agriculture, Ministry of Agriculture and Cattle-Raising, August, 1975.

Agricultural exports have, however, maintained an ascending tendency, with an annual growth rate of 14.79%.

Traditionally, export activity has centered around a few products produced by management and small industry, constituting a modern inroad in a backward economy. This is the case with bananas, sugar cane, and in a lesser degree with coffee and cocoa. In recent years, although this situation persists, a tendency can be noted toward an increase of elaborated or processed farm products and toward new products such as tea, hemp, and flowers.

The market value of exports shows a general tendency toward growth, especially in hemp and cocoa beans.

In synthesis, the increase in the volume of exports from 1970 to 1973 has been 13.49%, while the increase in its market value has been 51.25%, indicating better prices paid to the country.

The inflationary world economy, however, makes real improvement less than the figures seem to show.

Market Value of Principal Agricultural Products Exported - 1970 1974

(Millions of Dollars)

Products	1970	Index	1973	Index	1974	Index
Bananas	83,299	100	109,418	131.3	112,528	136.3
Cocoa beans	22,182	100	26,704	120.4	102,856	463.7
Coffee beans	50,002	100	66,773	133.5	63,378	134.7
Grains	1,659	100	8,681	523.3	5,858	353.1
Corn	-	-	3	-	864	-
Fibers	131	100	-	-	4	0.03
Hemp	421	100	1,674	397.6	5,709	1356.1
Tea	207	100	737	356.0	851	411.1
Flowers	371	100	604	162.8	575	155.0
Tobacco	458	100	116	25.8	326	71.2
Sugar	8,036	100	12,129	150.9	3,708	-
Subtotal	166,766	100	116,839	136.0	301,657	180.9
Total	186,119	100	278,041	151.2	320,000	171.9

Source: Exterior Commerce Annals to 1973 - Central Bank, cited in "Analysis of Agrarian Activities," Ministry of Agriculture, Ministry of Agriculture and Cattle-Raising, August, 1975.

8.2 Imports

The slow growth of the agricultural sector has had as a consequence a decrease in the agricultural product per inhabitant and a greater dependence on imports of food stuffs and agricultural raw materials. The following graph reveals the place of agriculture in imports:

Proportion of Agricultural Sector in Total Market Value of Exports

1970-1974

(Millions of Dollars CIF)

Products	1970		1973		1974	
	Value	%	Value	%	Value	%
<u>Raw materials and Intermediate Goods</u>	<u>136.1</u>	<u>100.0</u>	<u>173.8</u>	<u>100.0</u>	<u>443.1</u>	<u>100.0</u>
Agriculture	5.6	4.1	5.7	3.2	61.0	13.7
Industry	115.1	84.6	149.4	86.0	316.2	71.4
Construction	15.4	11.3	18.7	10.8	65.9	14.9
<u>Capital Goods</u>	<u>83.0</u>	<u>100.0</u>	<u>147.8</u>	<u>100.0</u>	<u>388.6</u>	<u>100.0</u>
Agriculture	7.5	9.0	5.7	3.9	16.7	4.4
Industry	42.9	51.7	84.0	56.8	239.6	61.7
Transportation equipment	32.6	39.3	58.1	139.3	182.3	34.0
<u>Consumable Goods</u>	<u>36.2</u>	<u>100.0</u>	<u>64.0</u>	<u>100.0</u>	<u>108.2</u>	<u>100.0</u>
Foodstuffs	3.6	9.9	4.7	7.3	19.8	18.3
Drugs	14.6	40.3	20.2	31.6	30.8	28.5
Clothing and textiles	0.8	2.3	0.6	0.9	0.8	0.7
Others	0.5		0.4		2.3	
<u>Fuels</u>	<u>17.2</u>	<u>100.0</u>	<u>11.2</u>	<u>100.0</u>	<u>16.3</u>	<u>100.0</u>
<u>Others</u>	<u>0.5</u>	<u>100.0</u>	<u>397.2</u>	<u>100.0</u>	<u>958.5</u>	<u>100.0</u>

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

The market value of imports has also grown considerably in relation to its volume: for the 1970-73 period, volume grew 97.7%, and value increased 160.3% because of higher prices. The greater increase in the value of imports corresponds to consumable goods (282.7%), foodstuffs (260.9%), raw materials and intermediate products (161.3%). As for the imported products, wheat stands out with an augment of import volume of 232.0% and, in lesser degree, oats (17%).

8.3 Agricultural Trade Balance

In the 1970-1974 period, the agricultural commercial balance shows favorable development, with greater growth activity in exports than in imports in that sector. The market total has risen from 160 million dollars to 300 million, by which agriculture contributes in large measure to the financing of imports by other sectors of the economy, a role it will continue to play in spite of the growing importance of the oil industry.

CONTRIBUTION OF AGRICULTURAL SECTOR TO

COMMERCIAL BALANCE: 1970-1974

(Millions of Dollars)

	1970	1971	1972	1973	1974
Total Exports	189.9	199.1	326.3	532.0	1,050.3
Index	100.0	104.8	171.8	280.1	553.1
Agricultural Exports	177.2	185.5	248.8	223.1	397.7
Index	100.0	104.7	140.4	125.9	224.4
Total Imports	273.0	339.0	318.6	397.2	958.5
Index	100.0	124.2	116.7	145.5	351.1
Agricultural Imports	16.8	13.5	12.8	16.1	97.5
Index	100.0	80.3	76.2	95.8	580.4
Total Commercial Balance	-81.1	-139.9	7.7	134.8	91.8
Agricultural Balance	160.4	172.0	236.0	207.0	300.2

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

9. Financial Resources

9.1 Credit

The use of credit by the agrarian sector has risen from 14 to 17% in the 1970-74 period, with a decrease in the intermediate years. The growth rate presented is the economy's smallest: a rate of 36% in relation to that of the total credit system, which is 54.2%.

BANK CREDIT EXTENDED BY ACTIVITIES: 1970 - 1974

(Millions of Sucres)

	1970	1971	1972	1973	1974
Total Credit	11.309.5	12.204.9	14.542.0	17.036.0	22.621.0
Index	100.0	107.9	128.6	150.6	200.0
Commerce	6.396.2	7.285.6	8.322.0	9.864.0	11.844.0
Percentage	56.6	59.7	57.2	57.9	52.4
Index	100.0	109.7	118.0	137.3	215.4
Industry	2.091.6	2.295.6	2.468.0	2.871.0	4.506.0
Percentage	18.5	18.2	17.0	16.9	19.9
Index	100.0	109.7	118.0	137.3	215.4
Agriculture	1.586.6	1.484.9	1.705.0	2.159.0	3.988.0
Percentage	14.0	12.2	11.7	12.7	17.6
Index	100.0	98.6	107.4	136.0	251.3
Others	1.234.9	1.139.3	2.047.0	2.142.0	2.283.0
Percentage	10.9	9.3	14.1	12.5	10.1
Index	100.0	92.2	165.8	173.4	184.9

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

The use of credit in the agricultural sector has not been compatible with its contribution to the national product; this situation is disturbing, as the unstable processes of production in agriculture make it necessary to give special attention to credit extended in this sector.

9.2 Government Funds

From 1973 to 1975 funds destined toward the activities of the Ministry of Agriculture and Cattle-Raising and its related branches have been increasing as seen in the following graph (next page):

The increase from 1973 to 1974 is of 44.2% for the total budget and 148.2% for the agrarian sector. This shows government interest in bettering the public institutions of the sector. The limited operational capacities of institutions, however, has impeded the complete spending of the budget's funding.

FISCAL BUDGET BY SECTORS : 1973 - 1975
(Millions of Sucres)

Sector	1973	%	1974	%	1975	%
Total Overall Expenses	<u>9,890.0</u>	<u>100.0</u>	<u>14,263.3</u>	<u>100.0</u>	<u>15,791.7</u>	<u>100.0</u>
General Servies	<u>2,466.4</u>	<u>24.9</u>	<u>3,389.3</u>	<u>23.8</u>	<u>3,586.0</u>	<u>22.7</u>
Social Development	<u>3,026.7</u>	<u>30.6</u>	<u>3,950.2</u>	<u>27.7</u>	<u>4,565.6</u>	<u>28.9</u>
- Min. of Education	2,564.1	25.9	2,973.7	20.8	3,549.2	22.5
- Min. of Labor	64.9	0.7	107.0	0.8	108.8	0.7
- Min. of Public Health	397.7	4.0	869.5	6.1	907.6	5.7
<u>Economic Development</u>	<u>2,691.5</u>	<u>27.2</u>	<u>5,356.7</u>	<u>30.6</u>	<u>4,195.4</u>	<u>26.6</u>
- Min. of Publ. Works	1,732.2	17.5	2,136.8	15.0	1,995.3	12.6
- Min. of Nat. Resourc.	115.7	1.2	182.7	1.3	201.0	1.3
- Min. of Agric. & Catt.	775.3	7.8	1,924.5	13.5	1,871.8	11.9
- Min. of Industry	68.3	0.7	112.7	0.8	127.3	0.8
<u>Public Debt</u>	<u>1,627.4</u>	<u>16.5</u>	<u>2,046.5</u>	<u>14.3</u>	<u>1,958.0</u>	<u>12.4</u>
Overall Destination	78.8	0.8	520.6	3.6	1,486.7	9.4

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

II AGRICULTURAL SECTOR'S POLICIES AND ACTIVITIES

The Integral Transformation and Development Plan for the 1973-1977 five-year period defines the features of the sector's policies, adapting them to program level, establishing objectives and goals, strategies and activities, costs and financing for each of them. *

1. DESCRIPTION OF POLICIES

The document "Analysis of the Agricultural Sector" points out the principal areas in which implementation activities of the policies have been carried out during 1972-1974. Those who wish additional information are referred to this document.**

1.1 Policies on the Use of Renewable Natural Resources.-

1.1.1 Land:

Agrarian Regionalization Plan.

1.1.2 Water:

INERHI*** Program, Water Law which eliminates the right to private ownership of water.

* See document "Plan Integral de Transformación y Desarrollo" 1973-1977, Part I, Chap. I and II and Part II, Chap. I. The sectorial budget is included in the Appendix.

** "Análisis del Comportamiento del Sector Agropecuario". MAG and JUNAPLA (1973-1975), August 1975.-

*** Instituto Ecuatoriano de Recursos Hidráulicos.-

1.1.3 Forests :

During the period, there has been ample legislation on this subject (see point 4.1.3 Forests, op.cit. "Comportamiento del Sector"), but its application has been limited up to now.

1.2 Strategic Policies.-

1.2.1 Agrarian Reform :

New reform law and more power for IERAC*, regionalization of the country for expediting action, etc.

However, in spite of consensus in governmental circles on intervening in land tenure, pressure from private owners has not allowed much progress in this field.

1.2.2 Colonization :

Also in IERAC. Great advances have **not been made**.

1.2.3 Integrated Rural Development :

Its need is mentioned in the Agrarian

* Instituto Colombiano de Reforma Agraria y Colonización.-

Reform Law, Tit. VII, but requires
reglamentation. *

1.3 Economic Policies.-

1.3.1 Marketing :

1.3.2 Taxes and Subsidies :

1.3.3 Credit :

1.3.4 Input Supply :

1.3.5 Employment :

The first four have tended to benefit "certain segments of producers characterized as credit subjects", (p. 116 on, op.cit.) which has defined its impact.

1.3.1 Marketing :

The public sector's role is that of regulator and incentivator. The need of studies to guide the State is suggested.

- a) Analysis of institutional agricultural marketing problems.
- b) Evaluation of the capacity and the actual state of marketing infrastructure

* A planning unit for Integrated Rural Development Policies has just been created (April '76) in JUNAPLA-MAG, which

(warehouses, silos, cold storage plants, etc.)

- c) Determination of infrastructure and service needs.
- d) Analysis of the present government al marketing organization including functions and policies.

The required institutional infrastructure is now being created, for example : ENAC, Empresa Nacional de Almacenamiento y Comercialización de Productos Agropecuarios (National Storage and Marketing Enterprise) and ENPROVIT, Empresa Nacional de Productos Vitales (National Vital Product Company), for distribution among the underprivileged classes.

The problem is structural and cannot be solved "hastily": The government's efforts have created confusion both within the government and among the producers. In addition, a clear and well outlined policy to determine goals is lacking; it should be specially linked to the National Food Security Policy.

1.3.3 Credit :

Managed through the National Develop-

was suggested and financed by the World Bank as part of a loan for US\$4.000.000 for defining Integrated Rural Development projects.-

ment Bank which has been assigned significant resources for capitalization (from 1.000 to 3.000 million sucres between 1972 and 1974).

The policy has evolved favorably but the introduction of criteria is urgently required in order to facilitate a greater access to credit, linked to technical assistance and input use programs to the small farmers.

1.3.4 Inputs :

There are also resources available, managed by the National Development Bank, but their use is limited due to rising prices (internationally) and to the volume of farmers who cannot buy them.

1.4 Stimulus to Production.-

Programs were defined for :

- Products for domestic supply with the goal of substituting imports.
- New and traditional export products.
- Agricultural promotion.
- Research in the sector.

This policy has had an impact but it is necessary to improve current mechanisms supporting the production process, especially those of coordination on higher levels, in order to coordinate its execution in the country side too.

1.5 Sectorial Planning.-

This is one of the most important aspects for the sector's development. On a formal level, sectorial planning mechanisms have been defined by the Ministry and the sectorial organisms which must coordinate with JUNAPLA, the central planning organism.

On the other hand, Regional development organisms operating dynamically (such as CREA, PREDESUR, Etc.) are in fact planning the mechanisms being it necessary to connect them to the sectorial planning system.

In reality, planning is not being done efficiently because :

- There is a lack of instruments for gathering information for programming.
- Planners and executors are divorced; planning is done from above.
- Inter-institutional coordination at different sectorial levels is lacking.
- There is no integration of activities through the planning channels.
- There is dispersion of available resources in activities which are not inherent to planning.
- There is not enough personnel.

1.6 Institutionalization of the Agricultural Sector.-

The government has greatly contributed to the formation of the public agricultural sector, by a decree which in 1973 created the Ministry of Agriculture and Animal Husbandry along with the National Authority of Prices (Superintendencia de Precios), law 1172 of the same year which reglamented the Agrarian Reform process and institutionalized Rural Development, and the decree which created ENAC in 1974.

There is a complex institutional network which would allow the fulfillment of the formulation, execution, coordination and evaluation process for agricultural policy.*

It is necessary now to implant coordination mechanisms at the central level and with zonal delegations to significantly improve the sector's operative capacity.

1.7 Subregional, Regional and World Agricultural Policy.-

1.7.1 Subregional :

Defined by the Cartagena Agreement

* See outline on "The Public Agricultural Sector's Institutions", Appendix.

in Chapter VII (Art.69-74), the first meeting of Ministers of Agriculture of the Andean Group in Lima (1974), created the Agricultural Council which is considering criteria for agricultural programming and will begin its work with cereals, oleaginous plants and animal products.

The Andean Group's first meeting on Scientific and Technical Cooperation defined agreements on Cooperation and established utilization mechanisms for research results and to set concrete priorities for action.

The third meeting of Health Ministers, held in November 1974, created the Permanent Food and Nutrition Advisory Commission; in its first meeting, this commission defined its field of action as "Multisectorial and Interdisciplinary". Ecuador's interest in this was outstanding in what it was seeking, through subregional integration, a common framework for the solution of those problems which, to a greater or lesser degree, affect the countries of the Andean Pact.

1.7.2 Regional :

LAFTA exists at this level but it has had no importance in policy definition.

1.7.3 World :

The conclusions of FAO's World Food

Conference which was held in Rome in November 1974 has oriented the country in the promulgation of its policies. In addition, Ecuador asked to be one of the pilot countries for FAO's Food Security Policy which is presently being carried out in a few countries world-wide.

1.8 Summary . -

As a summary of what has been presented in this numeral, it is worthwhile to point out the fundamental strategic aspects towards which agricultural production policies are aimed :

- Maintain an elastic domestic food supply in order to prevent inflationary pressure focus from the agricultural sector.
- Promote increasing agricultural exports, taking advantage mainly of the conditions offered by the special treatment given Ecuador within the Andean Group; program substitution of food imports, not only in the sense of expanding agricultural activity but also in that of elevating the level of capital accumulation in the country.
- Vertical integration of agricultural activities with industrialization of products from the countryside, in order to give greater stability to employment in the seasonal employment periods in agriculture and to increase the added value of primary production.

2. MAG's OPERATION PROBLEMS IN 1974

According to the Minister of Agriculture's analysis, the main problems for the execution of the sector's policies were :

- a) Lack of coordination both within the Ministry and between it and the zonal delegations, national programs and the commissioned agencies. On the other hand, the private sector is still not very well organized and this makes public action difficult and prevents coordination between the public and private sectors.
- b) There is a set of programs and projects with funds which are not completely utilized in the fiscal year and what is used does not leave any transcendent action or works.
- c) There is lack of backing from technicians -operative level- for putting the resolutions adopted by the political power into operation. Initiative is not developed to seek solutions resulting from detailed study and analysis, for problems arising during the execution of programs.
- d) The directors have not assumed full responsibility leaving a much of these at a political level.

3. MAG's PRINCIPAL ACTIVITIES DURING 1975

According to the sector's general policies described

in Numeral 1 and taking into account the country's most urgent needs in order to satisfy the growing demand for food products and raw materials for agroindustry, a new operation strategy was devised for 1975 which considers four key aspects :

3.1 Ranking of productive items.-

3.2 Production infrastructure.-

3.3 Agrarian Reform and Rural Development.-

3.4 Institutional Infrastructure.-

3.1 The past two year's experience has proven that it is necessary to determine priorities on the basis of the relative importance of crops and cattle production, keeping the characteristics of national consumption and foreign trade in mind. MAG's efforts should concentrate on a first group of crops and cattle products which are considered strategic for both national and international markets (See Chapter on Research Needs).

3.2 The infrastructure facilities destined to increase and improve sectorial production make up the second strategic area of MAG's field of action. This area is oriented towards consolidating the sector's capitalization programs such as : Agrarian regionalization, agricultural mechanization, silo construction, cattle repopulation, irrigation and re-forestation.

- 3.3 The change in land tenure structure and its use is considered one of MAG's most important activities.

In order to execute Agrarian Reform programs and projects, MAG is working according to a program elaborated by IERAC.

The design of the Agrarian Reform policy in irrigated areas deserves special attention.

As far as Rural Development, priority should be given to peasant organization and training, specially in areas where Agrarian Reform has priority.

- 3.4 Includes the construction of Laboratories and buildings for nationwide management.

A P P E N D I X

Budget for 1974 * :

MAG's budget, including Programs and commissioned agencies was 1,991 million Sucres, 212 million of which were destined to subsidize wheat importation and payments to FERTISA for losses in the sale of fertilizers.

Besides this budget, other investments were made in the sector :

250 million Sucres assigned for capitalization of the Development Bank.

1.400 million Sucres for disposable resources for the Agricultural Financing Fund.

108 million Sucres emitted in Agrarian Reform bonds.

390 million Sucres from an agreement between ENAC and BNF for domestic purchases of rice, corn and cotton.

511 million Sucres for supervised credit on 250,000 Has. in different crops.

Budget for 1975 :

1.872 million were assigned in 1975. Extrabudgetary contributions were also obtained for this year for investment in cattle repopulation, mechanization, silos, buildings and laboratories. Detailed figures were not available.

* Data taken from Declarations on "Política de Acción del Ministerio de Agricultura y Ganadería para 1975", by Brigade General Raul Cabrera Sevilla, Minister of Agriculture and Animal Husbandry.-

OUTLINE OF THE PUBLIC AGRICULTURAL SECTOR'S INSTITUTIONS

1. Institutes which regulate and plan national and sectorial agricultural development :
 - Junta Monetaria
 - Junta National de Planificación y Coordinación Económica
 - Dirección General de Planificación del Ministerio de Agricultura y Ganadería

2. Institutions which formulate, direct and execute the agricultural sector's policy :
 - Ministerio de Agricultura y Ganadería
 - Banco Nacional de Fomento

3. Institutions which participate in specific fields of sectorial agricultural development :
 - Superintendencia de Precios
 - Instituto Ecuatoriano de Normalización -INEM-
 - Centro de Desarrollo Cendes
 - Comisión de Valores -Corporación Financiera Nacional
 - Fondo Nacional de Pre-Inversión -FONAPRE-
 - Junta Nacional de la Vivienda.

In its turn, the Ministry of Agriculture and Animal Husbandry is made up of a series of administrative units, some direct dependencies and others commissioned which are in charge of carrying out the policies corresponding to the subsectors which make up the agricultural sector :

Direct Entities :

1. Agriculture Subsector .-

- a) Dirección General de Desarrollo Agrícola
- b) Programa Nacional de Granos de Clima Templado
- c) Programa Nacional de Arroz, Maíz y Control de Piladoras
- d) Programa Nacional de Banano y Frutas Tropicales
- e) Programa Nacional del Algodón y otras Fibras Vegetales
- f) Programa Nacional de la Caña de Azúcar y Derivados
- g) Programa Nacional del Café
- h) Proyecto de Desarrollo y Diversificación Agrícola
- i) Proyecto de Promoción de Empresas Agrícolas
- j) Proyecto de Diversificación de Areas Cafetaleras.

2. Cattle Raising Sub-sector .-

- a) Dirección General de Desarrollo Ganadero
- b) Programa Nacional de Control de la Fiebre Aftosa
- c) Comisión Nacional de Leches
- d) Programa de Desarrollo Ganadero

3. Forestry Sub-Sector .-

- a) Dirección General de Desarrollo Forestal
- b) Proyecto Ayuda Bilateral Británica
- c) Proyecto Fortalecimiento del Servicio Forestal

4. Rural Development Sub Sector .-

- a) Dirección General de Desarrollo Rural
- b) Proyecto y Fortalecimiento del Servicio de Extensión.

5. Marketing and Enterprise Sub sector .-

- a) Dirección General de Comercialización y Empresas
- b) Empresas de Economía Mixta :
 - Productos Lácteos Cuenca
 - Productos Lácteos Chimborazo (PROLAC)
 - Productos Lácteos del Sur (COMPROLACSA)
 - Productos Lácteos Huancaviílla (PROLAHUAN)
 - Canal Frigorífico de Loja (CAFRILOSA)
 - Fertilizantes Ecuatorianos (FERTISA)
 - Industrial Forestal Cayapas
 - Semilas Certificadas
 - Frutas y Hortalizas (FRUTAGRO)
 - Ecuador Feed & Farms
 - Alfarina Salinas (CEMALSA)

All these administrative units are represented both in the Central Offices and in the nine Zonal Delegations in which the national territory has been divided for administrative ends and for technical conduction of the activities entrusted to the Ministry of Agriculture and Animal Husbandry.

Commissioned Agencies :

1. National Institutes .-

- a) Instituto Ecuatoriano de Reforma Agraria y Colonización IERAC
- b) Instituto Nacional de Investigaciones Agropecuarias -INIAP-
- c) Instituto Ecuatoriano de Recursos Hidráulicos INERHI

2. Government Enterprises .-

- a) Empresa Nacional de Almacenamiento y Comercialización de Productos Agropecuarios ENAO
- b) Empresa Nacional de Productos Vitales ENPROVIT
- c) Fábrica de Abonos del Estado
- d) Empresa Nacional de Semen (ENDES)

3. Regional Development Enterprise .-

- a) Centro de Reconversión Económica del Austro CREA
- b) Centro de Rehabilitación del Manabí -CRM-
- c) Comisión para el Desarrollo de la Cuenca del Río Guayas -CEDEGE-
- d) Sub-Comisión Ecuatoriana -PREDESUR-

The commissioned agencies are also represented with administrative units in the national territory or in the territorial area to which their activity is circumscribed, as in the case of the regional development entities.

The institutional structure described in the preceding paragraph is the base through which the formulation, execution and evaluation process of agricultural policy is carried out.-

BIBLIOGRAPHY

1. National Planning Board.- Plan Integral de Transformación y Desarrollo 1973-1977. Resumen General. Editorial Santo Domingo, Quito, 1973.-
2. Ministry of Agriculture, National Board of Economic Planning and Coordination. Análisis del Comportamiento del Sector Agropecuario. Período 1973-1975. Draft for discussion. Quito, August, 1975.-
3. National Planning Board. National Census Office. Resultados Anticipados por Muestreo. III Censo de Población, II de Vivienda, 1974.-
4. Ministry of Agriculture. Planning Division. Department of Agricultural Statistics. Estimado de la Superficie Cosechada y de la Producción Agrícola del Ecuador. 1974.-
5. "Basis for the Formulation of a Program for Rural Development." Mimeograph. Undated.
6. INIAP. Technical Bulletin No. 9, Dept. of Agrarian Economy. La Agricultura en Cifras. July, 1974.-
7. Central University of Ecuador. School of Economics. Institute for Economic Research. Diagnóstico de la Economía Ecuatoriana. Quito, 1975.-

8. Central University. Institute for Economic Research. Visión de Ecuador. Undated.-
9. Ecuadorian Center for Agrarian Services. Una Experiencia en Desarrollo Rural. Quito, June, 1974.-
10. Organization of American States. Interamerican Economic and Social Council, CEPCIES. Situación, Principales Problemas y Perspectivas del Desarrollo Económico y Social del Ecuador. Washington, August, 1975.-
11. Costales, Piedad and Costales, Alfredo. Historia Social del Ecuador, Reforma Agraria. Tomo IV. Editorial Casa de la Cultura Ecuatoriana. Quito, 1971.-