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University of Wisconsin-Madison
Madison 53706

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POPULATION GROWTH, ECONOMIC PROGRESS, AND OPPORTUNITIES ON THE LAND: THE CASE OF COSTA RICA

by

Carlos Joaquin Saenz*

*The author is presently Director, Associated Colleges of the Midwest, Central American Field Program

TABLE OF CONTENTS

I. INTRODUCTION

This study of the economic development of Costa Rica analyzes the historical behavior of several economic variables and their interdependence as these affect the process of economic growth. In addition, economic evolution is analyzed within the broader context of the nation-state, where the role of the economy is influenced by and influences changes in political and social structures.

Costa Rica is an almost unique case in the Latin America history because of the land tenure patterns which developed during the colonial period. These are responsible in no small measure for the social, political, and economic organization of the country today. A very small Indian population, an absence of rich mineral resources, and the unfortunate economic policy of the colonial Audiencia de Guatemala effectively killed the incipient trade of the colony of Costa Rica, so that a self-sufficient subsistence agriculture predominated. Instead of the colonial hacienda economic organization, the family agricultural unit emerged as the basis for economic survival.

This economic organization deeply affected initial social relations, resulting in the formation of a society in which class differences were very slight or nonexistent. Politically, this social and economic organization provided the basis for the successful institution of a democratic system of government, which did not, however, insure a good working relationship between state and economy. A "laissez-faire" economic policy evolved which, in the case of coffee production, processing, and marketing, permitted the emergence of a powerful economic group with a dependant, newly-created landless laborer group. The economically powerful group soon controlled the government and used its power for its own benefit, not only perpetuating its own economic power but also restricting economic opportunities for the lower classes.

This restriction of economic opportunities took the form of land ownership concentration in the Meseta Central where coffee is grown and where possession of land still provides many economic opportunities with a good internal market for most agricultural products. It is only recently that rapid population growth and the limited economic opportunities in the Meseta have combined to cause a heavy migratory movement to other areas with available public lands.

Allowing occupation of public lands and providing means whereby private individuals could acquire a legal title to the occupied land served as an escape valve, preventing the build-up of social pressures and permitting the government, in the hands of the coffee oligarchy, to dedicate most of its energies to the development of the coffee industry.

Means for the legal acquisition of land through occupation were never very effective in practice. The bureaucratic process usually involved great expenditures for occupants who usually had but limited financial resources. As a result, this policy created a large subsistence sector in the outer provinces characterized by virtual isolation, very little trade, and political dependence on a faraway government influenced by interests rooted in the Meseta Central.

Employment off the land has not increased at a rate fast enough to absorb the yearly increments in the labor force. While industrial production grows at rather high rates, industrial employment rates are increasing much more slowly due to capital intensive methods of production. In the 1960-64 period, industrial employment was able to provide employment to only 10 percent of the yearly increment in the labor force.

The possibilities of expanding employment in commercial farms, arbitrarily defined as those using hired labor throughout the year, do not seem good. At present these farms are actually cutting labor costs with widespread mechanization and a shift to cattle production, both labor-saving activities.

The move away from labor intensive methods stems from the need to remain competitive in international markets and to secure a reasonable investment return when prices of agricultural commodities remain arbitrarily fixed in the face of rising production costs.

In Costa Rica labor is becoming an increasingly costly factor of production. Government commitment to social welfare programs and the enactment of labor laws not only regulating minimum wages but also defining the rights and liabilities of employers and employees, together with a commitment to provide credit at low interest rates for the purchase of farm machinery (subsidized by tax exemption and differential exchange rates) have resulted in a relative increase in the price of labor and in a subsequent substitution of capital.

The rise in cattle production at the expense of other crops is also influenced by the relative increase in the price of labor, as well as soil fertility and prestige considerations.

Therefore, a significant number of people have to migrate to new agricultural areas each year, resulting in an expansion of the subsistence sector. However, if Costa Rica is to provide its people with rising standards of living, it must integrate the already large subsistence sector into the political and economic system.

There are powerful limiting factors to a rapid expansion of the national economy. The first is a chronic imbalance of international payments, limiting the rate at which industrialization can proceed, since industrialization depends on foreign investment for necessary capital goods. It is not at all certain that foreign investment will be available at favorable rates. Furthermore, most of the industries in Costa Rica are of the "conversion" type relying on imported inputs, further adding to balance of payments problems.

The agricultural sector has historically been the source of foreign exchange earnings, with coffee and bananas accounting for about 85 percent of exports. Expanding production of these two commodities would increase foreign exchange earnings, but physical and market limitations effectively reduce the possibilities of expansion. Both products require soil and climate conditions found only in limited areas of the country. These areas which are already almost fully exploited in the case of coffee, are also currently facing market restrictions through international quotas. Recent efforts to diversify exports through increased production of cotton and beef have had some success. Nevertheless, foreign exchange earnings from agriculture cannot be expected to grow at a sufficiently rapid rate to provide capital inputs for a rapid industrial expansion without a reduction in consumption levels.

The integration of the subsistence sector into the market oriented economy may increase balance of payments problems if raising the per capita income in the subsistence sector increases the demand for imported consumer goods. Nevertheless, such integration is necessary to enlarge the internal market for industrial products, a necessary precondition to industrial expansion. Though the Central American Common Market has broadened the possibilities for industrial growth, the lack of effective demand is still the chief limitation to the establishment of new industries and the expansion of those already in operation. This in turn limits the opportunities for foreign investment.

A still more important consideration in the proposed integration of the subsistence sector into the economy is the political and social cost of continued discrimination. Costa Rica must extend citizenship through development and equalization of opportunities if it wants to preserve a constitutional democratic form of government.

Subsistence agriculture found in Costa Rica does not fall into the traditional Latin American mold, but instead can be characterized as frontier agriculture. The important difference between traditional subsistence and frontier agriculture is that stagnation occurs in the former while growth exists in the latter. This growth stems from an imbalance between expectations and achievement, and is sustained by maintaining that disequilibrium. There must be a certain level of achievement, for otherwise expectations will be revised downwards. Provision of a certain basic structure will allow a self-sustained process of rising levels of achievement, causing expectations to rise and assuring that disequilibrium between the two which provides the will to develop. It is more costly both in time and money to create the disequilibrium than to maintain it. The present existence of this disequilibrium in most subsistence areas in Costa Rica makes it possible for these areas to develop from "within" without the need to invest large amounts of resources.

Most subsistence farmers own or occupy more land than they are presently cultivating. In addition, most subsistence farmers must work as part-time laborers since their farms cannot support their families even at subsistence levels. The latter condition provides a desire for financial independence and the former provides the means thereto. The objective of becoming an independent farmer is in turn viewed as the means to improve standard of living.

Present institutional arrangements and the occupation of land with or without property rights does not, as many farmers are finding out, provide the means to a better standard of living. While security of tenancy is a necessary condition for the economic development of agriculture, it is by no means sufficient since investment decisions are made in the light of other considerations, of which the most important are market, financial and technical.

The building of roads and market facilities, as well as the provision of technical assistance and research, require sizable amounts of resources which the national government is not about to provide for a number of reasons. Construction and maintenance of local roads is the responsibility of the local municipio, which for that purpose levies a road tax on all residents of the municipality on the basis of how much road frontage each property has without any regard to the quality of the road serving that property.

While the yield of such a tax is relatively large, it often represents a drain of scarce resources because the funds extracted are never returned in the form of new or better roads. Instead, costly highways lead to the entrances of the farms of certain politically powerful persons.

Another important tax, federal rather than local, is the land tax, levied on holders of land with or without clear legal titles.

These two taxes indicate the existence of possible investment funds in the subsistence areas, which, if reinvested in the form of public services, could substantially accelerate local development. This is "development from within" and is also a means of providing government support at no extra cost for increasing levels of achievement. In other words, this is the way to provide security of expectations.

Before presenting the results of the field investigations which led to the above conclusions, the historical background of current agricultural conditions will be outlined.

II. COLONIAL LAND TENURE PATTERNS AND THE INTRODUCTION OF COFFEE

The first permanent settlement in Costa Rica by the Spanish was in 1564 at Cartago, lying at an altitude of 1,450 meters just below the highest point of the Meseta Central at about the geometric center of the country. "... nowhere else has a town lying in the interior highlands, difficult of access on every side, exerted such an influence. Costa Rica was from the very beginning a 'central' land."[1]

This mode of settlement played a very important role in shaping the development of Costa Rica. Not only did it effectively isolate the colony from the rest of the world, but it concentrated population in a relatively small area known as the Meseta Central, comprising only about 8 percent of the total area of the country. This area is best suited for coffee production and concentrated settlement was in large part responsible for both the quick adoption of coffee as a profitable crop and the fast rise in its production.

There were relatively few Indians here, some of whom refused to submit peacefully to the Spanish rule, resulting in a relative scarcity of Indian labor for agricultural pursuits. There were

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[1] Leo Waibel, "White Settlement in Costa Rica," The Geographical Review, October 1939, p. 542.

no mineral deposits to speak of, and the flow of Spanish settlers stopped arriving almost completely at an early date; in 1676, a century after Cartago was founded, the number of Spaniards remained almost the same as in 1570.[2] The scarcity of population--Spanish as well as Indian--and the "central land" factor retarded the economic development of the colony and laid the basis for a social and economic organization quite unique in colonial Spanish America.

Trade with other Central American colonies was never specifically forbidden (though it was taxed), but difficult communications and high costs of transportation often resulted in production, transportation, and tax costs higher than the value of the product. This was the case with the few exports of cocoa to Nicaragua. Another factor inhibiting intraregional trade was the similarity of agricultural commodities produced in each Central American colony.

Costa Rica's production was thus directed to providing for local necessities, resulting in the formation of thinly scattered subsistence farms. In such isolation the colonial economy completely disintegrated and became in the fullest sense of the term a subsistence economy. In 1719, Governor Diego de la Haya Fernandez

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[2] See Francisco Montero Barrantes, Elementos de historia de Costa Rica, (San José; 1892), Vol. I.

reported to the Spanish King that people lived on their plots (rather than in the by-now largely empty Cartago) and produced only what they consumed, coming to town only on Sundays for Mass. According to the same report, the cocoa bean was used as money. There were no barbers, doctors, or even food markets, making subsistence farming a necessity for everyone, even the Governor himself.[3]

The scarcity of Indian labor and the lack of markets for agricultural products prevented the formation of the large haciendas so prevalent in the rest of Latin America. Under such economic conditions social and class distinctions were virtually eliminated, and new institutions growing out of the need to cope with a situation new to the Spanish colonial experience were created. Transplanted Spanish institutions, contributing to the survival and accumulation of wealth of Spaniards in other colonies, could not function in Costa Rica.

Legal possession of land through occupancy was a part of Spanish law. An individual could claim legal title to land which had been occupied and cultivated by him for a specific number of years--usually 8 to 10. Through these procedures large amounts of land could be and were claimed <u>when</u> there existed sufficient amounts of Indian labor to work it. In Costa Rica the use of these

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[3] Informe del gobernador Diego de la Haya al rey, 1719, as quoted in Fernandez Bonilla L., <u>Colección de Documentos para la historia de Costa Rica, 1889</u>, Vol. V, pp. 475-477.

procedures did not result in the formation of large landholdings but provided instead the legal basis for the formation of small family units.

The most important institution emerging from this new situation was the set of rules regarding the way in which land was used. These rules supported the view that the settlers had a "natural right" to use of as much land as was necessary to subsist. This became "common law" later recognized and explicitly included in the legal framework of the independent nation. This principle proved important to the introduction of a widespread coffee production.

After independence in 1821, it was realized that coffee had great potential for providing the economic opportunities so desperately needed. With the family farm as the predominant economic unit, these opportunities would be available to many. As a result, coffee production grew rapidly. As Castillo points out in discussing the development of the coffee industry in Central America:

> In Costa Rica, for example, internal order had been consolidated at an early date and there were no large reserves of a quasi-slave manpower. Thus, it was possible in this country to apply the full energies of a free labor force and the potentialities of a tradition of hard work to the development of the coffee industry well before it could even be started in the rest of the region.[4]

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[4] Carlos M. Castillo, Growth and Integration in Central America (New York: Praeger, 1966), p. 22.

As already noted, the Meseta Central contains both the ecological conditions conducive to production of the highest quality coffee and the population density suitable to coffee production. Thus, from the beginning Costa Rica produced fine coffee for sure markets at relatively high prices.

Throughout the history of the coffee industry the state has been the main driving force behind its expansion. Immediately after Independence in 1821, the main concern of the Costa Rican government was finding ways to alleviate the poverty inherited from the colonial period. In that year the Ayuntamiento of San José gave away for the first time tracts of public land to those willing to grow coffee on them and also supplied, free of charge, the necessary coffee seeds. Four years later in 1825, coffee production was exempted from the 10 percent tax which the Church collected from most agricultural products and in 1831, all the land on which coffee had been grown for at least five years was declared the private property of those growing the coffee.

These measures--land grants and tax exemptions--continued to be used heavily during a long period as a means of accelerating coffee expansion. Up until 1860, the measures taken to expand coffee production were considered beneficial to both private and public interests. The practice of making coffee lands the private property of the grower clearly served a public purpose for it effectively expanded participation in sovereignty by expanding land ownership. Tax exemptions for coffee production also resulted in widespread benefits, since at that time becoming a coffee producer was a fairly simple process.

The first coffee beans (50,000 pounds) were exported to Chile in the year 1832. Trade with Chile continued to increase steadily until 1844, when the British market was opened.

The opening of this new market marks the beginning of a period in which profound economic and social changes occurred in Costa Rica. Export-import activity began to create wealth inequalities which later resulted in the concentration of land and coffee production in the hands of a small group of merchants. When the London importers began to advance financial resources on future crops to the Costa Rican exporters, new powerful commercial firms began to emerge. These new firms not only exported the coffee to England, but also imported consumer goods to meet a rapidly increasing demand.

As the financial strength of these firms grew, they became financial intermediaries for the acquisition of coffee land and the concentration of coffee production. The capital obtained from the London merchants as an advance on the next coffee crop was loaned by the local exporters to coffee producers. The lenders would then receive the coffee crop as payment for the loan or, as was often the case, foreclose the farm if the value of the crop was not enough to cover the loan.

The process of farm foreclosure and land concentration was very gradual until 1851. According to the observations Meagher made in that year: "To me it is very satisfactory to see what the agricultural statistics show and that is the fact that two-thirds of the population are made up of landowners. Almost every man has his own farm, mules, chickens, hogs, and his sugar or coffee plantation."[5] Beginning in the year 1858, however, the process of land concentration was greatly accelerated by the introduction of expensive new machinery into the coffee industry, especially into processing activities. Many smaller farmers could not make the necessary investments to remain competitive and sold out. Others got into debt and eventually lost their farms.

In this same period the powerful economic group of large coffee growers, who were also money lenders, exporters and importers, got control of the government. Juan Rafael Mora, president in 1849, though a powerful coffee grower himself, was alarmed by the magnitude of the process of land concentration through money lending activities. He tried to put a halt to it by creating a national bank which would provide credit to the small farmers at reasonable interest rates. He was never able to carry out his project, however, for he was ousted and shot in 1858 in a move sponsored by the group whose interests would have been hurt by the creation of such a bank. A mortgage law was passed in 1865, but it in no way hampered the process of land concentration; it gave a

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[5] Cited in Rodrigo Facio, Estudio Sobre Economia Costarricense (San José: Editorial Soley Valverde, 1942), p. 27.

higher degree of security to the money lender without any real protection to the borrower. Under this law the owner of a piece of land, duly registered in the Public Register established for such purposes, could have the value of his property divided into shares, each share represented by a bond. At any time, and with perfect safety for the bank or the money lender, funds could be raised on these bonds which were used as collateral.[6]

It is impossible now to get information on the rate of property transfers for some of the years in this period. However, the value of such transfers for the year 1892 as well as the value of the properties mortgaged during the same year is available. Table 1 shows this information by provinces. The four provinces (San José, Heredia, Alajuela, and Cartago) with highest values of transfers as well as mortgages are located in the Meseta Central. (The unusually high value of mortgages for the province of Limón on the Atlantic cost reflects the banana growing activity in this area, organized largely on the sale of bananas to large foreign concerns.)

The table shows the extent of the process of land concentration through foreclosure procedures, which became increasingly common after 1860. The magnitude of property transfers can be better appreciated by noting that the value of all the property registered up to 1892 is recorded in the Public Register to be

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[6] The law and the procedures are described in J. B. Calvo, <u>The Republic of Costa Rica</u> (New York: Rand McNally, 1890).

Table 1. Costa Rica: Value of the Transfer of Real Estate and Mortgages, 1892, by Province. (In Gold Dollars)

Provinces	Value of transfers	Value of mortgages
San José	1,885,162	1,371,877
Heredia	1,180,532	131,387
Alajuela	1,027,155	222,591
Cartago	731,156	384,053
Guanacaste	43,320	90,910
Limón	258,612	475,734
Puntarenas	65,541	12,463
TOTAL	5,191,482	2,689,067

Source: Adapted from Memoria de Gobernación (San José: 1892).

$46,968,170 gold dollars. In other words, according to value, 11.1 percent of all registered property changed hands in 1892.

Concentration of land and coffee production, together with continuing state protection of the coffee industry and a growing population resulted in the formation of a new class of landless laborers. At the beginning of this process laborers could command a fair share in the very modest wealth of the country because a man could always occupy and till land on his own. In time, the decline of the growth rate in the coffee industry without a corresponding increase in other sectors meant that the economic position of the landless laborers steadily deteriorated as their number increased.

III. DEVELOPMENT WITH LIMITED SUPPLIES OF LABOR, 1821-1920

Arthur Lewis has analyzed the process whereby employment in the capitalistic sector expands as capital formation occurs. This process takes place in a subsistence agricultural economy from which labor can be drawn in unlimited supplies into the capitalistic sector by paying a wage only a fraction higher than the earnings in the subsistence sector. This condition allows the creation of a surplus in the capitalist sector, permitting capital formation to proceed and expanding employment in a continuous process. The model requires that the productivity of labor in the subsistence sector remain low; otherwise earnings in the subsistence sector will rise as labor is withdrawn from it, making it necessary to raise wages in the capitalist sector and hence reducing the capitalist surplus used for expansion. This expansion is accelerated as an increasing proportion of national income is reinvested. Thus the process "by which a community which was previously saving and investing 4 or 5 percent of its national income or less, converts itself into an economy where voluntary saving is running at about 12 to 15 percent of national income or more," which is the "central problem in the theory of economic development."[7]

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[7] A. Lewis, "Economic Development With Unlimited Supplies of Labor," A. N. Agarwala and S. P. Singh (eds.), The Economics of Underdevelopment (New York: Oxford University Press, 1963).

Economic development in Costa Rica, however, from independence in 1821 until about 1920 reveals the Lewis model to be inadequate. The cornerstone of the Lewis model is the existence of an unlimited supply of labor at a fixed institutional wage. In Costa Rica during the earlier part of the period mentioned such a situation did not exist. However, capitalist expansion during this period came to a stop, causing the creation of an unlimited supply of labor in later years and the appearance of the other conditions which make the Lewis model operative.

With the introduction of coffee a capitalist sector was created in Costa Rica. The activity of the coffee industry generated a surplus or profit and created investment funds for capital formation. As already described, the development of the coffee industry exhibited immediate and wide producer participation. In terms of our discussion here, there was an almost complete change from a subsistence economy to a capitalist one. Or, if you will, a complete withdrawal of the labor force into the capitalist sector.

According to the census of 1892, the population stood at 243,205; there were 8,366 coffee farms with 26,911,078 coffee trees which produced a crop of 17,388,704 kilograms valued at 10,954,744 pesos. An acre of coffee contains about 450 trees so there were about 59,802 acres planted in coffee in that year. The same census estimates the number of able-bodied men from 18 to 50 years of age, which we may take as the labor force, at 34,273. Considering only the Meseta Central, where most coffee is grown, the figure drops to 30,232--88.3 percent of the total labor force.

From these figures, then, the average size of an 1892 coffee farm was 7.15 acres with a potential maximum of 3.6 workers per farm. In reality, of course, the actual number of workers available to the coffee farms was much lower, since a number of other activities besides coffee growing demanded labor.

Before the introduction of coffee, Costa Rica was self-sufficient in most food crops and even exported them in small quantities. These crops were grown almost exclusively in the Meseta Central where 84 percent of the population lived in 1892. But coffee displaced most food production as evidenced by imports of staple commodities for 1893.

The imports represent 12.4 percent of the total value of exports. It is interesting to note that even tobacco, which for many years was one of the few and at one time the most important of the export commodities, had to be imported.

The scarcity of labor stemming from this wide participation in the capitalist sector was not only reflected in high wages which diminished the capitalist surplus, but was also the main variable constraining expansion of the coffee industry and the establishment of an industrial sector.

Table 2. Costa Rica: Values of Imports of Subsistence Products, 1893 (Gold Pesos)

Commodities	Value
Wheat flour	289,418
Wheat	21,418
Corn	42,813
Beans	29,416
Rice	64,557
Tobacco	6,437
Butter, lard	78,416

Source: Adapted from G. Niederlein, _The Republic of Costa Rica_ (Philadelphia: The Philadelphia Commercial Museum, no date).

The introduction of new techniques into coffee growing and processing around 1860 required more capital and a larger volume of production than the family size farmer could manage. These new techniques were introduced in part to alleviate the labor shortages. Many larger producers also used the new techniques to create a larger supply of hired labor. Smaller producers who could not afford the new machinery were forced either to sell their farms or to take a lower price for their coffee. With new processing methods, small farmers had to sell to big processors, who more or less arbitrarily set the price. Lower coffee prices to the small coffee producers raised the number of farm foreclosures while reducing the attractiveness of the coffee business for the small farmer.[8]

Thus, while the laboring class was swelled by dispossessed farmers, labor shortages continued. Apart from settlement of part of the increment in the labor force on the public lands still available in the Meseta, there was also an increase in the demand for labor as the public sector began to expand. Wages continued to increase.

The revenues of the government increased tremendously after 1870 through import duties made possible by coffee exports. These revenues were almost immediately used in the creation of public facilities lacking for so long in Costa Rica. The first step of the government to facilitate the coffee trade, still the major source of government revenue, was to improve the communication system between the Meseta and the seas. The construction of a railway to the Atlantic was contracted, port facilities were created, and other public works were undertaken including the improvement of roads in the Meseta itself.

All these activities demanded labor. The many attempts to solve the labor problem, including efforts to stimulate immigration

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[8]See Facio, op. cit.

by providing incentives in the form of land grants, were never successful. It was deemed necessary to import Chinese and Negroes to work on railway construction.

The scarcity of labor, then, affected not only the coffee industry but also most activities. Wages kept on rising of course. In the year 1888, "the salary of a good workman, from the day laborer to the fine artisan or mechanic, varies from $1 to $5 per day of 10 working hours; wages which, in proportion to his expenses, permit him to save--the cost of living being comparatively cheap."[9]

The scarcity of labor thus maintained a relatively equal distribution of income even in the face of growing inequalities in land ownership. This equality of income substantially reduced the availability of investment funds, generated solely in the agricultural sector, by reducing profits. Capital resulting from savings made possible by higher earnings of the laboring class did not compensate for the loss of profits in the capitalist (export) sector, since levels of consumption were high. This fact emerges in Table 3, which shows the composition and value of imports in 1893.

While the value of imports of wine, cognac, and cashmeres was 534,084 gold pesos, the value of the imports of machinery and implements was only 101,184 gold pesos. These figures give a clear

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[9] Calvo, op. cit., p. 130.

indication of the high levels of consumption which Costa Ricans enjoyed in 1893, particularly since the population at that time was estimated at 243,205. These figures, therefore, also indicate low levels of investment.

Table 3. Costa Rica: Value and Composition of Total Imports, 1893. (In Gold Pesos)

Commodity	Value	Commodity	Value
Wheat flour	289,418	Prints	378,209
Wheat	21,418	Fancy articles	211,483
Corn	42,818	Sugar	42,693
Beans	29,416	Cotton shirts	1,094
Rice	64,557	Preserved meats	14,597
Tobacco	6,417	Coal	101,959
Butter, lard	78,416	Ready-made clothing	34,838
Beer	94,064	Cognac	113,244
Wines	159,815	Cotton drills	79,226
Drugs & medicines	171,336	Preserved fruits	29,830
Perfumes	29,846	Railroad material	232,608
Oil paints	25,174	Galvanized iron	9,896
Fence wire	106,603	Ordinary soap	20,800
Sacks for coffee	61,248	Fine jewelry	37,220
Furniture	25,577	Cotton shirting	92,310
Shoes	44,756	Chinaware	15,944
Hardware	74,038	Machetes	9,491
Cashmeres	261,025	Manta-cruda	34,033
Implements	27,291	Sewing machines	29,869
Machinery	73,893	Cotton handkerchiefs	12,819
Mercury	150,582	Sardines	18,983
Cloth	65,742	Candles	44,354
Cotton goods	121,589	Matches	14,527
Mixed cotton & woolen	21,587	Cigars	14,427

Source: Adapted from G. Niederlein, The Republic of Costa Rica, (Philadelphia: The Philadelphia Commercial Museum, n.d.).

As long as the expansion of the capitalist sector was synonymous with the expansion of the coffee industry, investment mainly took the form of developing new coffee plantations, an investment requiring mainly labor and needing only a wage fund. The main constraint in the rapid expansion of this sector was the scarcity of labor rather than investment funds.

During this period Costa Rica was not plagued by the persistent balance of payments problem which today effectively restricts the development of the country. This favorable trade balance points to an availability of foreign exchange with which capital goods for creation of an industrial sector could have been acquired. While the population and the effective demand for manufactured goods were small, industrial production in this period did not require large markets. Furthermore, competition in international markets was less of a problem and a market for almost any manufactured good could have been easily found, especially in other parts of Latin America.

Scarcity of labor coupled with state policies perhaps explain the failure to establish an industrial sector which could have provided economic opportunities when the coffee industry lagged. High wages and a financial structure directed toward coffee production as well as the lack of state interest in protecting and stimulating industrial activity effectively killed any efforts to industrialize. At the time people saw no need to undertake other economic activities when coffee was a great provider of wealth and when there was not even enough manpower to take full advantage of this crop, Costa Ricans seem to have not realized that they were increasingly delegating their economic well-being to forces over which they had no control. Furthermore, they should have recognized that coffee land was not unlimited in supply and that expansion of the coffee industry would inevitably face limitations of a physical nature. Of course, at the end of the nineteenth century, government had fallen to big coffee interests; under what may be called full employment, no pressures to change existing policies developed.

The economy continued to depend almost exclusively on coffee production. Even though bananas began to be exported in 1880, their production never had the influence of coffee though the value of banana exports has at times exceeded that of coffee exports.

Banana production did not have the multiplier effect that coffee production did since it is controlled by foreigners, profits are sent out of the country, and the proportion of total revenues going to wages is very low. Furthermore, government revenues from this source are unreasonably low because of low average and marginal income tax rates for the country in general and because of a series of tax exemptions that the companies enjoy.

The population of Costa Rica began to grow at a faster rate than coffee production after the year 1889, when coffee exports per capita reached an all time high of 96.8 pounds. A decrease in the growth rate of coffee was a reaction to price changes. After 1890, the price of coffee began to fluctuate as did production. Production came to depend not so much on the availability of labor as on the situation of the world coffee markets. In 1900 widespread unemployment occurred as a result of a drop of about 50 percent in the coffee prices. This economic depression still persisted in 1902. Thus, coffee production alone could not provide consistent economic opportunities for the growing population, estimated at 234,217 in 1905.

Another consequence of the price drop was further deterioration of the land tenure structure. Many small farmers had gotten credit to expand their coffee plantations under the high prices of the late 1890's, a move which eventually resulted in the loss of their farms.

At the beginning of the twentieth century, then, the capitalist sector was no longer able to absorb the natural increases in population and a subsistence sector began to be re-created. The problem was not yet very serious, for coffee prices did rise again and the population, not too large, was still located almost exclusively in the Meseta Central.

The institutional framework developed around coffee production continued to serve interests of the coffee growers, who were becoming proportionally fewer in number. However these institutions were unable to meet needs of the rest of the population. Economic opportunities in the coffee industry grew scarce, and real wages continually deteriorated as money wages declined with the demand for labor. Meanwhile, the prices of basic foods increased as local production failed to provide for local needs.

This scarcity of agricultural products for local consumption, once a result of the scarcity of labor, now occurred because the institutional framework set up to serve the coffee industry did not support other productive activities. It was extremely hard to get credit to grow corn, for instance, because land planted to corn was not as valuable as land planted to coffee; the coffee plantation itself was valued as collateral, not the land. Furthermore, each time coffee prices went down, so did government revenues. The government had to borrow from the banks, which in turn restricted their operations to financing coffee production to the detriment of the other economic activities. This phenomenon continues to the present day.

The differentiation between the capitalist (export) sector and the subsistence (domestic) sector began and was furthered by policies adopted by the state after 1920. In the early 1900's, the decreasing marginal productivity of labor in the subsistence sector resulted in lower incomes and in a concentration of export production. The concomitant larger profits created a setting (after 1920) where the Lewis model became potentially operative. However, development did not take place, for reasons outlined in the next section.

IV. EXPANSION OF THE SUBSISTENCE ECONOMY

In the face of fluctuating coffee prices in the world market, after 1920 the state adopted measures to protect the coffee industry. The measures taken were: Tax exemptions; a strengthening of the financial structure serving the coffee industry; other subsidies to lower transportation costs; and, at one time, the assurance of a minimum price for the coffee crop.[10]

Despite all these measures, growth in coffee industry virtually ceased and for some time even declined, with a subsequent decline in employment. Large coffee growers continued to make handsome profits due to state policy outlined above as well as falling wages. Since coffee expansion was now very slow, a large surplus of funds was not reinvested in the coffee industry which could have been made available to diversify capitalist expansion.

However, surpluses were hoarded because the same institutional structure which had protected coffee made it difficult to invest in other activities.

Meanwhile, the public sector depended on import duties as its chief source of revenue. The failure of imports to increase, since exports failed to grow fast enough, forced the government to reduce substantially its public works programs, in turn

[10] See Carmen S. de Malavassi, _El Café en la Historia de Costa Rica_ (San José: Universidad de Costa Rica, 1958).

reducing employment opportunities in this sector. Commerce in general, largely on imports, also depended on coffee exports to provide necessary foreign exchange. In addition, worsening income distribution reduced consumption, and hoarding by the rich in a gold standard economy further reduced business.

By 1925, employment opportunities had become so scarce that salaries for agricultural workers had dropped to about three U.S. cents per hour, only a fraction of the going wages at the beginning of the century. This deterioration was further aggravated by inflation.

In 1930, a series of protest demonstrations demanded state action to improve existing conditions. The government response, however, was not only limited by economic and physical constraints, but also by the tremendous political power of the coffee industry.

Under these circumstances the state permitted occupation of public lands as a means to eliminate existing pressures. A series of laws passed in the 1930's set forth procedures by which certain amounts of public land could be alienated to private individuals. By 1941, the amount of land claimable by one person was set at 100 hectares if it was to be used for crops and to 300 hectares if it was to be used for livestock production.

This land policy solution to the unemployment problem created two other problems: Expansion of subsistence agriculture and appearance of large land holdings outside the Meseta. By 1930, all land on the Meseta was in the hands of private individuals. The possibilities for economic progress among individuals taking advantage of land settlement laws were very limited, since everywhere outside the Meseta the frontier areas lacked communications, public facilities, and in general the presence of the state. In these new areas a self-sufficient type of farm, providing only the minimum subsistence needs, emerged.

The expansion of the subsistence agriculture can be traced by noting population growth and changes in population distribution. The 1844 census put the total population of Costa Rica at 79,982, of which 73,906 or about 92.4 percent lived on the Meseta. By 1883, the distribution of the population had not changed much although total population had more than doubled, with about 86.6 percent living on the Meseta. In 1916 80.2 percent of the population still lived on the Meseta.

The strongest flow of out-migration from the Meseta was toward the Pacific coastal plains. The settlement pattern followed the existing cart road to Puntarenas, which was and still is the most important seaport on the Pacific. There was another flow toward the Atlantic region, induced primarily by the establishment of banana plantations and construction of railway facilities in the late nineteenth century. Since banana plantations can function successfully in virtual isolation, individuals migrating to the banana producing areas usually did so for the specific purpose of working as hired laborers; such migrations therefore did not result in the spread of subsistence farming.

By 1936, the population in the Pacific lowlands showed an increase over 1916 of 63.8 percent; for the Atlantic lowlands the increase was 49.3 percent; while in the Central Highlands population increased by only 27.7 percent. Even though the proportion of people then settled outside the Meseta was still low (23.5 percent) in absolute terms the number was becoming considerable at around 139,600.

Several studies confirm that in most of the settled areas outside the Meseta the majority of the people engage in subsistence agriculture with a very low standard of living.[11] A 1935 law had established a minimum wage of 0.25 colones (approximately U.S. $0.04) per hour for the laborers in the coffee farms. Although this minimum wage was far from adequate, such legislation diminished political pressure on the state, since the government could now claim it was improving the economic situation of the laboring class.

By setting a low minimum wage for the laborers on the coffee farms and by facilitating the occupation of land outside the Meseta

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[11]See UNESCO, Proyecto Piloto de Educación Rural, (San José, 1952); Gregorio Alfaro, Problemas que afectan el Desarrollo Agropecuario en Cuatro Cantones de la Península de Nicoya (San José: Ministerio de Agricultura y Ganadería, 1966); and George Hill, Gregorio Alfaro, and Manuel Gollas, Un Area Rural en Desarrollo (San José: Ciudad Universitaria, 1964).

(though the settlers did not acquire legal ownership since the titling procedures were too involved and expensive),[12] the state was able to eliminate dissension and preserve economic and political power for large coffee growers.

Expansion of subsistence farming outside the Meseta could hardly have proceeded without the appearance of large commercial farms in frontier areas.[13] These larger farms provided a source of cash income necessary during the first stages of subsistence farming before crops were raised.

The appearance of large landholdings resulted mainly from the abuse by people with economic and political power of the various laws and decrees supposedly designed to alleviate the pressures on government from a large segment of the population whose economic and social standing was progressively deteriorating. One greatly abused law was No. 139 of July 1941. Under this law the maximum amount of land which could be claimed was 100 hectares for crop production and 300 for livestock raising; the only way to get larger amounts of land was to have individuals--usually several landless laborers--claim the maximum amount and then "buy" the claims from them. It is difficult to estimate how much public land was alienated by a single individual in this

[12]For a detailed discussion of the problems encountered in the legalization of occupancy, see Hill, Alfaro, and Gollas, ibid.

[13]A commercial farm is arbitrarily defined as one using hired labor throughout the entire year.

manner, but according to some estimates, thousands of hectares were sometimes acquired by single landlords.

Because some landless laborers realized that opportunities for economic progress outside the Meseta were very limited, they became squatters on farms in the Meseta. Public lands were again used to solve this problem and the Law of Squatters or Law of Exchange was passed in 1942. The government was able to take possession of land settled by squatters and pay the actual owner with unused national territory in another part of the country. Owners whose farms in the Meseta had lost their soil fertility or which were, for any number of reasons, not very productive, abused this law by hiring individuals to invade their farms, thereby making the owners eligible for compensation. The value of these usually unproductive farms was then set much higher than their true value and exchanged for public land. Since the public land was as a rule priced far below its true value, owners could acquire tracts of public land whose size and value were far greater than the plots they had "lost".

These two laws in particular were responsible for large landholdings in the outer provinces. Because such laws left the choice of location entirely to the claimants, sites of these large landholdings were scattered, as were the subsistence farms which accompanied them. This mode of settlement made difficult the formation of demographic groups large enough to successfully demand public services from the state.

Population outside the Meseta still continues to grow much faster than the national total. By 1963, 48 percent of the population was settled in outer areas. The Agricultural Census of 1963 showed that 48 percent of Costa Rican farms were located outside the Meseta. Yet a 1958 census of commercial activity showed that 83.4 percent of all sales that year were made in the Meseta, and that furthermore, 65.6 percent of all commercial establishments were located in this same area.[14] Here also lived 79.5 percent of those engaged in commerce, receiving 89.7 percent of all profits and salaries originating from this activity. An industrial census, also taken in 1958, shows a similar situation: 83.6 percent of all industrial capital investment was made in the Meseta, while 87.3 percent of those engaged in industrial activities lived there and received 90.7 percent of all profits and salaries originating in the industrial sector.[15]

Precise information on the allocation of public funds among different geographical areas is lacking but concentration of commercial and industrial activities in the Meseta indicates that in recent years, as in the past, the state has favored the Meseta in the provision of public services. This statement

[14]Dirección General de Estadística y Censo, II Censo de Comercio en Costa Rica (San José: 1958).

[15]Dirección General de Estadística y Censo., II Censo de Industrias en Costa Rica, (San José: 1958).

strengthens an earlier one: Outside the Meseta the presence of the state is extremely tenuous. Despite the lack of recent figures for this study, this situation has not changed in any significant way; if anything, the tendency is toward an even heavier concentration of both private and public investments in the central area. The new industrial plants, largely a result of the formation of the Central American Common Market, are generally located to take advantage of existing social capital. This in turn forces the government to allocate most of its resources to the maintenance and expansion of the economic infrastructure in the Central Highlands.

The growth of the public and industrial sectors, including commerce and services, has not been able to create enough employment opportunities for the rapidly growing labor force, a considerable proportion of which has, therefore, sought employment opportunities in the agricultural sector.

The end result of the process we have been analyzing is a dual economy with a prescientific, precapitalist, prestate or subsistence sector, almost exclusively agricultural in nature, and a capitalist sector which includes government and industry, also largely of an agricultural nature but, unlike the subsistence one, producing mainly for export.

V. FURTHER EXPANSION OF THE DUAL ECONOMY

The preceding section analyzed the process by which the Costa Rican economy evolved from its initial condition, with a scarcity of labor and a fair participation in the commonwealth by the majority of its people, to recent times when a large segment of the population was excluded from that commonwealth and where labor became, for all practical purposes, unlimited in supply at the legal minimum wages. The two main factors responsible for this change were the decline in the growth rate of the coffee industry, around which the economic activity of the country was centered, and the failure of the state to redesign its policies to create other opportunities for economic progress. Instead, state actions tended only to eliminate or ameliorate social pressures by providing individual laborers with a means of subsistence in the outlying areas.

In 1948 a radical change in political philosophy took place, rejecting Laissez-faire economics for a more dynamic concept of the state as provider of economic incentives outside the coffee industry. One line of action taken was direct state involvement in the expansion of necessary infrastructure within which economic activity, industry in particular, could prosper. This step included restructuring the financial system (designed for and controlled by the coffee industry almost exclusively); it became necessary to nationalize banking activity in order to bring about requisite changes in a relatively short time.[16]

A second course of action expanded the social welfare program, which had begun in 1942 with the first labor code and the creation of a social security system to provide medical care to low income groups.

The new policies, however, have not been successful enough in creating economic opportunities, and expansion of the subsistence sector continues.

The Industrial Sector

The industrial sector has shown relatively high rates of growth in terms of the value of its production, but a much less impressive performance in the creation of jobs. In 1950 the industrial sector generated 12.7 percent of the GNP; it increased its share to 14.4 percent in 1956 but declined to 14.1 percent in 1962. The value of the product generated by this sector grew between 1950 and 1962 at an average rate of 7.4 percent per year, while the economy as a whole grew at an average annual rate of 6.5 percent. While this value of industrial output rose an average 8.3 percent per annum between 1950 and 1957, it did so at an average rate of only 6 percent per year between 1958 and 1962, and continued to grow at a decreasing rate of 4.8 percent between 1960 and 1962. Unfavorable developments in foreign trade and the sharp deterioration of the balance of payments, coupled with the

[16] See, for instance, Jenaro Valverde, Nuestro Sistema de Banca Nacionalizada (San José: Asamblea Legislativa, 1967).

marked tendency of the industrial sector to use capital intensive methods of production, placed an effective limit on industrial expansion after 1958.

Several factors have influenced the change in factor proportions in favor of capital and against labor in industrial activity; chief among these is lack of explicit government policies favoring more intense use of labor in industrial production, extensive social welfare programs for workers whose cost is mainly borne by employers, and an upward revision of minimum wages every two years. As a result, in 1950 the value of physical capital per industrial worker was about 14,200 colones (one U.S. dollar = 6.62 colones), in 1962 it was 23,600 colones (both measured in colones of 1962 purchasing power). Consequently, the average productivity of labor, roughly measured by dividing the gross product of industry by the number of its laborers, increased in real terms from 8,568 colones in 1950 to 13,412 colones in 1962, an average yearly increase of 3.8 percent.

Thus the rate of growth in the value of industrial output of 7.4 percent per year compares to a yearly average per worker increment in production of 3.8 percent because employment in this sector grew only at an average annual rate of 3.5 percent.

In 1950 industry employed 22,280 workers, in 1962 33,664 workers; i.e. the industrial sector was able to create, on the average, only 1,000 new employment opportunities per year during this period. Since the annual growth rate of the entire labor force averaged 3.1 percent during this period, the relative importance of the industrial sector as employer changed very little. This sector employed 8.2 percent of the labor force in 1950 and 8.6 percent in 1962. In other words, it has been able to absorb only about 10 percent of the yearly increment in the labor force.

Even if industry succeeds in achieving 1965-70 growth rates called for by the National Planning Office, (which assumes the creation of over 2,000 additional employment opportunities per year during that period) its capacity to absorb labor in relative terms (assuming the same output to labor ratio) will not have changed drastically. The labor force since 1965 has been growing by 15,000 persons per year compared to 10,000 for the period 1950-62. In other words, even if industry doubled the absolute number of laborers it absorbed up to 1962, it will only provide jobs for 13.3 percent of the yearly increments in the total labor force after 1965.

In addition, capital intensive methods of production are placing further burdens on the international balance of payments, already strained by changes in the world coffee market, and by the import of costly capital goods and equipment. Also, compulsory contributions by employers to welfare services, plus increasing minimum wages, have shifted the price line in favor of capital and against labor, and some blame for the adoption of such factor proportions might fall to the government. However, an index constructed by the National Planning Office, showing the growth in labor costs which can be attributed to the increases in minimum wages, belies the notion that minimum wages can be held responsible, to any large extent, for the trend towards more capital intensive methods of production. This index, taking 1950 as the base year of 100, increased to 137.6 in 1962. When this figure was translated into real terms taking account of the rising cost of living, real minimum wages increased by only 9.2 percent between 1950 and 1962.[17] However, as the Planning Office itself has pointed out, this index should be used with extreme caution, since both the data on which it is based and the method of construction leave much to be desired. Furthermore, it does not reflect increases in labor costs due to the provision of social welfare services.

If, as seems to be the case, industry continues to favor increasingly capital intensive methods of production, then growth rates in terms either of value added or of capital investment, must be much greater in the future if industry is to make a more significant contribution to the expansion of economic opportunities.

The industrial sector may well have achieved higher rates of growth after 1962, rates which one may be tempted to ascribe entirely to the Central American Common Market after 1963. The

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[17] Estudio del Desarrollo Industrial Costarricense, Version Preliminar (San José: Oficina de Planificación, 1964), p. 78.

value added in industry, for Central America as a whole, increased at about 11 percent per year during the period 1962-65. Costa Rica showed one of the best performances of the five nations participating in the integration venture, transforming an original deficit into a surplus equal to 21 percent of its intra-regional sales.[18] However, favorable industrial growth rates for Central America cannot be traced entirely to the Common Market, since "... the beginning of integration coincided with the onset of a vigorous boom in all three primary export commodities at once, causing merchandise exports as a whole to rise at a pace of 11 percent per year also. It is difficult to say, therefore, how much of the stimulus was due to the Common Market, or how much expansionary momentum will remain once the commodity boom has passed."[19]

The formation of the Common Market has no doubt been a decisive factor in attracting foreign investment to industry. However, continued availability of foreign exchange is necessary to keep most industries in operation, since many industrial inputs must be imported and, therefore, together with profit remittances, must be financed by exports of traditional commodities. Under these circumstances the savings in foreign exchange through the substi-

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[18]Hans O. Schmitt, "Labor Absorption and Economic Growth in Central America," unpublished draft, the University of Wisconsin, p. 12.

[19]*Ibid.*, pp. 10-11.

tution of imported consumer goods are very limited. Increased exports of the traditional commodities, mainly agricultural, will continue to play a very important role in the expansion of the industrial sector. Yet it seems doubtful that traditional exports, particularly coffee exports, will be able to grow at a pace permitting industry to expand rapidly without foreign exchange shortage. Expansion of coffee production already faces land limitations, and international marketing quotas already restrict coffee exports. Although presently no such limits on the expansion of banana exports exist, organization of ownership, production and marketing of this commodity limits the quantity of foreign exchange which can be secured by its export.

The size of the market is not only an important determinant of the productive structure of the industrial sector, but also a limit on its expansion. The availability of internal markets for manufactured products was considered, before integration became a reality, one of the most difficult problems facing industry. The Central American Common Market partially solved this problem, at least for light consumer goods industries using mostly imported raw materials; such industries have in fact become more widespread. The Common Market, however, has not solved the problem for more basic industries producing chemicals, durable consumer goods, and capital goods.

Even for industrial activities of the first type, the availability of effective markets is again becoming a problem, since effective demand has already been met. Nevertheless, government and others interested in attracting foreign investment argue that Costa Rica, with a per capita income close to U.S. $400 and with industry generating only about 17 percent of the GNP, does not face a limit on industrial expansion, since industry usually generates about 22 percent of the GNP in countries with similar per capita incomes. However, such an argument is not valid because many statistical problems are involved in such international comparisons, and because variability in income distribution among countries is probably the most important factor in the failure of Central American industrial sectors to develop the full "potential" implied by per capita income levels.

The Public Sector

After 1950, the state embarked upon a program of providing an economic infrastructure within which industry could prosper. It created a series of autonomous institutions with such responsibilities as expanding electrical energy, modernizing and expanding telecommunications, and increasing the water supply. Public investment increased by approximately 670 percent in the period 1950 to 1957, boosting its participation in total investment from 8.8 percent in 1950 to 23.1 percent in 1957. Thereafter the growth of public investment declined and for some years even became negative as the financial situation of the government progressively deteriorated. (See Table 4).

Table 4. The Growth of Public Investment and Its Share in Total Investment. (In millions of colones of 1962).

Year	Total Investment	Public Investment	Public Investment as a percent of total
1950	250.7	22.1	8.8
1951	310.3	28.7	9.2
1952	430.9	71.2	16.5
1953	406.9	70.1	17.2
1954	462.0	91.4	19.8
1955	445.8	107.0	24.0
1956	475.6	104.9	22.1
1957	642.3	148.6	23.1
1958	564.4	146.5	26.0
1959	573.7	128.6	22.4
1960	576.1	97.2	16.9
1961	598.8	127.4	21.3
1962	651.4	146.5	22.5
1963	704.1	137.9	19.6
1964	722.9	160.0	22.1
1965	934.4	211.3	22.6
1966	851.2	179.3	21.1

Source: Officina de Planificación, La Economía de Costa Rica en 1966, (San José: 1967).

Productivity of these investment expenditures, however, has not been high because various autonomous institutions frequently duplicated efforts. Nevertheless, the government has had a reasonable degree of success in the expansion of social capital, providing industrial sector with most of the services which facilitate production, thereby reducing private outlays and costs.

This type of public investment has not resulted in greatly expanded participation of the population in capitalistic activities. The main reason, again, is that over 80 percent of the new social capital is located in the Meseta, continuing the historical pattern of unbalanced regional development but with the important difference that now almost half the national population lives outside this area. Furthermore, there are strong indications that the improved infrastructure has benefited mostly the same groups who achieved political and economic power through the production and marketing of coffee, and who command the financial resources needed to take advantage of new opportunities created by public investments.

Perhaps the state was aware that such a pattern of public investments would not integrate most of the population into capitalistic economic activity, and therefore sought to extend indirectly some benefits through a variety of welfare services. Despite humanitarian considerations, one must consider the strong indications that the program has been more detrimental than beneficial as a means to greater equality of participation in the commonwealth. Even if it has improved inherent capabilities to achieve economic progress and deepened available economic opportunities for its recipients, provision of such services has also adversely affected the expansion of opportunities.

As the number of economic opportunities has decreased relative opportunities have grown fewer relative to the increasing population, the number of individuals dependent on welfare programs has increased as shown in the growth of government consumption expenditures, which include the provision of health and education facilities, salaries of those directly working for the government, and pensions for all former government employees with 30 years' service.

These expenditures increased about 442 percent between 1950 and 1966. At the beginning of the period they represented 9.0 percent of total consumption; by the end, they represented 14.7 percent. Table 5 shows public consumption and its relation to total consumption.

Table 5. Public Consumption and Its Share in Total Consumption. (In millions of Colones of 1962.)

Year	Total consumption	Public consumption	Public consumption as a percent of total
1950	1,348.5	121.3	9.0
1951	1,466.2	131.9	9.0
1952	1,661.4	173.7	10.5
1953	1,761.4	191.7	10.9
1954	1,897.7	215.1	11.3
1955	1,955.3	249.3	12.7
1956	2,086.3	256.4	12.3
1957	2,219.7	272.0	12.3
1958	2,221.3	293.8	13.2
1959	2,449.6	310.8	12.7
1960	2,593.4	366.5	14.1
1961	2,628.4	358.0	13.6
1962	2,678.7	388.9	14.5
1963	2,926.6	464.1	15.9
1964	3,037.2	446.6	14.7
1965	3,385.4	511.4	15.1
1966	3,625.2	534.7	14.7

Source: Oficina de Planificación, La Economía de Costa Rica en 1966 (San José: 1967), p. 27.

Some of these expenditures--education for instance--have elements of investment. However, such investments as literacy are meaningless without increased economic opportunities.

Such a growth in consumption as well as in investment expenditures has, of course, changed the importance of the public sector in the composition of the Gross National Product. In 1962, this sector generated 10.0 percent of the G.N.P. against 5.4 percent in 1950. Greater state participation in economic activity has not, however, been so successful in stimulating high growth rates in per capita income, given rapid population growth. (See Table 6.) Reasons for this slow growth of per capita income are found partly in the unproductive nature of many government expenditures, and partly in the fiscal structure, which has not permitted government revenues to grow at the same pace as government expenditures.[20] Fiscal policies have forced the government to incur a heavy and constant budgetary deficit financed through loans from the National Banking System, thereby reducing the availability of

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[20]Lewis has pointed out that, "In less developed economies the marginal rate of taxation should always be considerably greater than the average rate." However, he notes that in these countries, "... it is frequently the case that the marginal rate of taxation is below the average rate--that government receipts increase less rapidly than national income." This appears to be the case in Costa Rica. See W. Arthur Lewis, The Theory of Economic Growth (Homewood, Illinois: Richard D. Irwin, Inc., 1955), pp. 396-408.

Table 6. Growth in Per Capita Income, 1950-1962.*

Year	Relative increase in income	Relative increase in population	Relative increase in per capita income
1950	-	-	-
1951	7.35	2.77	4.42
1952	7.20	3.43	3.69
1953	10.24	3.53	6.45
1954	7.48	3.53	3.83
1955	10.29	3.98	6.08
1956	4.49	3.86	0.62
1957	6.52	4.59	1.84
1958	7.43	4.18	3.07
1959	3.70	4.60	-0.85
1960	4.76	4.05	0.70
1961	5.45	4.54	0.85
1962	5.60	4.02	1.53

Source: Memorias del Banco Central de Costa Rica, 1950 to 1962.

*Income was measured in terms of factor costs.

resources for private investment. Since much of this financing came via loans from international financial organizations, it both contributed to the deterioration of the international balance of payments and reduced the availability of foreign exchange for the acquisition of capital goods.

Most of the expenditures for public investment have been productive, expanding economic activity, particularly in the industrial sector, but they have not provided opportunities for economic progress to very many individuals. Expenditures for education and health--though good in themselves--are of doubtful productivity if there are no concurrent opportunities to use the improved knowledge and health in the pursuit of economic well-being. Health and education become largely consumption commodities providing an unknown level of satisfaction to the consumers, some of whom at least have more basic needs such as adequate nutrition and shelter. Other expenditures are even luxurious consumption; i.e., two months pay to each employee in December, a practice which prevails in both the public and private sectors. Another considerable annual outlay by government goes to the rapidly growing government employee pension fund. These pensions come completely from government funds, since the employees contribute nothing directly to pension financing. Another considerable outlay provides for severance payments to which each public employee is entitled at termination of employment--a month's salary for each year he was employed. All benefits extend to all government employees regardless of income level, resulting in higher benefits for those with higher incomes. Furthermore, in the case of pensions, no minimum age is required to qualify, and many individuals start receiving a pension before the age of 50, meanwhile holding other jobs.

The National Planning Office has stated that these types of expenditures are largely responsible for the tremendous increase in government expenditures, and are therefore partly responsible for current government financial difficulties.[21]

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[21] Oficina de Planificación, Caracteristicas de la Economía de Costa Rica 1950-1962 (San José: 1965).

These welfare programs have had an adverse effect on economic activity in general. Some people have argued the contrary, saying that such government expenditures are beneficial even if deficit-financed because they expand employment, thereby increasing the effective demand for most commodities, in turn stimulating investment, and so on. All this may be true in a fairly closed economy where the resulting equality of savings and investment can automatically be realized. This is not the case in Costa Rica.

In 1966, in relation to the Gross National Product, imports stood at 33.3 percent. This figure clearly indicates pressures put on the balance of payments by any expenditures which do not result in import substitution or export expansion activities. No information is available for an estimate of the relationship of imports to per capita income except for 1962, when the figure was 0.35 for the population as a whole. The proportion of import expenditures to income is lower in lower income groups--and certainly much lower for those living at subsistence levels--than in the middle and upper income groups. Government employees make up a substantial part of the middle income group, so that their average expenditures for imports is likely to fall above the average for all income groups. On the other hand, their average exports are probably non-existent since the bulk of exports is generated in the agricultural sector. Thus, government consumption expenditures in general, and those going for welfare services in particular, are detrimental to the process of economic growth insofar as they limit the availability of foreign exchange by inducing consumption of imported goods without at the same time stimulating exports.

They are also detrimental to economic growth in an indirect way. Since government revenues have not kept pace with government outlays, the government has incurred a persistent budgetary deficit since 1959. Before 1959 the government occasionally had a surplus which could be used (through the National Banking System) to help finance private investment. For instance, in 1958 the government was left with a surplus of 11.8 million colones. Private investment needed some 150.6 million colones of credit that year. The National Banking System realized 53.0 million colones of savings (outside of the above government surplus) of which it used 9.3 million to expand banking facilities, leaving 43.7 million of its funds and 11.8 million from government surplus to be used in private investment. Thus savings captured by the banking system and the public sector still fell short by about 95.1 million colones of the sum required to finance the private investments which took place in 1958. The 95.1 million had to be secured from the international financial institutions. This example shows the problems resulting from lack of automaticity in achieving equality of savings and investment in the open Costa Rican economy. The burden is therefore placed on the international balance of payments as government consumption expenditures increase.

The problem is aggravated when government runs a budgetary deficit, as it has done persistently since 1958 and occasionally before that year. The government depends almost exclusively on revenues from import duties and indirect taxes. These taxes are positively correlated with increases in per capita income and the equality of its distribution. On the other hand, the demand for welfare services and hence the need for increased government consumption expenditures are negatively correlated with increases in per capita income and greater equality in its distribution. As noted, per capita income in Costa Rica is growing slowly and some indications show a deteriorating income distribution. Under such circumstances, government expenditures persistently tend to increase out of proportion to increases in government revenues.

Accordingly, public savings began to decrease. In 1958 they represented 23.7 percent of total government revenues; in 1963 they were negative. Since the government has continued to undertake extensive public investment projects, these expenditures had to be financed almost completely with resources from the National Banking System and international financial institutions. This situation has decreased the overall availability of investment funds and limited the rate at which economic growth can proceed. In 1967 the International Monetary Fund, as well as other financial institutions, refused to grant more loans to the Costa Rican government until it took measures to correct budgetary and balance of payments deficits. The government did move both to increase government revenues and to limit the expansion of the public sector, but it is too early to say whether these measures have been successful. Clearly, the public sector cannot continue to grow as it has in the last decade and a half.

Possibilities for increasing employment opportunities in the public sector are limited. There are no available employment statistics for this sector alone, since figures of public and services sectors have not been calculated separately. Thus the following analysis of the historical performance of the services sector as an employer covers the public sector and commercial activities, as well as personal services.

In 1950, there were 70,700 individuals working in the services sector as defined above, representing 26.8 percent of the employed labor force of that year.[22] By 1965, this number had grown to 121,000, representing 32.4 percent of the employed labor force,[23] giving a growth rate of employment of 4.2 percent

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[22]These figures and the ones which follow are taken, unless otherwise noted, from Oferta y Demanda Recursos Humanos en Centroamerica, No. 6 (San José: Consejo Superior Universitario Centroamericano, 1966).

[23]In 1950, an estimated 8,800 unemployed workers comprised 3.2 percent of the potential labor force. In 1965, the unemployed numbered 49,200, or 11.7 percent of the labor force.

per year during this period.[24] Between 1950 and 1963 the average productivity of labor in the services sector grew at an annual rate of 3.6 percent. Between 1963 and 1965, however, this rate became negative and was estimated at -0.2 percent per year.

The future of this sector as a source of employment does not seem very bright. As mentioned, the public sector is limited in its growth capacity and its capacity to absorb labor. Some of the factors which hinder the public sector also stifle the growth of commercial activity and personal services. The growth of the latter is very much a function of the growth of per capita income, and the growth of the former depends very heavily on the availability of foreign exchange as well as on increased purchasing power.

Analysts at the Consejo Superior Universitario Centroamericano optimistically predict a rate of growth in employment in this sector of 3.4 percent per year for the period 1965-1974, which is nevertheless lower than the 4.2 percent annually for 1950-1965. They have also pointed out, however, that the relative share of the labor force working in this sector will decrease to 31.4 percent by 1974, as against 32.4 percent in 1965. Even accepting their

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[24] In this respect, Costa Rica seems to be following a path similar to that of Uruguay, where in 1963 the services sector employed more than 50 percent of the labor force. Also, the public sector in Uruguay is becoming increasingly important as an employer. For an exposition of the sectoral employment trends in Uruguay, see Russell H. Brannon, "The Role of the State in the Agricultural Stagnation of Uruguay," Ph.D. thesis, University of Wisconsin, Madison, 1968, pp. 70-77.

predictions, the occupational structure of the population does not appear to be changing in any dramatic way in the nearly quarter century from 1950 to 1974. This occupational structure was in 1950 as follows: agricultural sector, 56.5 percent of the employed labor force; industrial sector, 16.6 percent; services sector, 26.9 percent; unemployment, 3.2 percent.[25] In 1974, it is predicted to be as follows: agricultural sector, 48.3 percent; industrial sector, 20.3 percent; services sector, 31.4 percent; unemployed, 7.0 percent.

Thus considerable evidence indicates that the agricultural sector must continue to play a decisive role in providing employment.

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[25]The wide disparity between employment figures in the industrial sector by C.S.U.C.A. and those by the National Planning Office are largely due to differences of opinion about what activities should be classed in the industrial sector and what in the services sector.

VI. ROLE OF THE AGRICULTURAL SECTOR IN PROVIDING EMPLOYMENT OPPORTUNITIES

Agriculture historically and at present has been the most important sector of the Costa Rican economy in terms of three important economic concepts--contribution to the Gross National Product, capacity to generate foreign exchange, and capacity to generate employment opportunities.

In 1950, the agricultural sector generated 39.5 percent of the G.N.P. By 1963, this contribution had diminished to 30.0 percent, and by 1965 to 28.2 percent. However, agricultural foreign exchange earnings have not changed significantly. In 1953, agricultural exports accounted for 94.4 percent of total exports, and in 1962, 90.0 percent. Two traditional export commodities--coffee and bananas--accounted for 81.0 percent of total exports in 1962. Efforts of the state to break the almost complete dependence of the Costa Rican economy for foreign exchange on these two commodities, particularly on coffee, have had little success. Furthermore, exports are no longer able to provide the foreign exchange needed to sustain growing levels of consumption and investment.

Agricultural exports undoubtedly will continue as the most important component of total exports, strongly influencing state policies to stimulate agricultural development. The government has continued to support the coffee industry by assuring its proper financing and by providing other services to facilitate production, such as technical assistance and aid in seeking and securing new markets. The state has also sought to expand banana production by encouraging domestic and foreign investment under conditions which will bring considerably more foreign exchange earnings into the economy than under the old United Fruit Company contracts.[26] These efforts have had limited success in that they expanded banana plantations--but not production. Furthermore, foreseeable expansion of the banana industry will not generate the increases in foreign exchange required to solve balance of payments problems and to sustain economic growth. Coffee is even less promising for, as already noted, problems facing its production expansion are more difficult to solve.

The state has recently, therefore, turned its attention to other agricultural products with potential contributions to the improvement of international trade. Means used to achieve this expansion of exports, while sustaining high levels of consumption for a portion of the population, are seriously hampering the possibilities for economic well-being among those not engaged in the production of commodities for foreign markets. In terms of the number of individuals concerned, this is a very important group. In 1963, of the total number of farms reported by the

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[26]The literature on the activities of the United Fruit Company in Latin America is abundant. See, for instance, Charles M. Wilson, Empire in Green and Gold (New York: Henry Holt & Company, 1947).

Agricultural Census of that year, only 33 percent were engaged in either coffee, sugar cane, or cocoa production primarily for export. Yet 70.0 percent of all the loans to agriculture by the National Banking System in 1963 went to finance the production of coffee, sugar cane, and cocoa.

Comparison of information from the Agricultural Censuses of 1950 and 1963 shows that the value of agricultural production grew at a rate of 2.5 percent during this period.

However, genuine development calls not only for an expansion of objective economic opportunities, but for a reconstruction of existing opportunities as well.

In 1950 the proportion of Costa Rica's population classified as rural was 66.5 percent, in 1963, 65.5 percent. The proportion of the labor force engaged in agriculture was 56.5 percent in 1950, 50.0 percent in 1963. Unemployment, for the economy as a whole, increased by almost 12 percent, boosting the percentage of the unemployed from 3.2 percent to 7.0 percent of the labor force over 1950-63. Clearly the relative decrease in employment in the agricultural sector has not been compensated for by a relative increase in employment in other sectors.

Previous analysis demonstrated that either agriculture had absorbed about 60 percent of the increments in the labor force between 1950 and 1963, or that unemployment had increased since industry absorbed only 10 percent of that increment, and services including government, took approximately 29 percent. Agriculture employed only 38 percent of the labor so that 23 percent remained unemployed.

However, changes in the total area under cultivation together with an increase in the number of farms in the 1950-1963 period might suggest that agriculture had absorbed more labor. The situation becomes even more contradictory given the traditional permissive attitude of the state toward the occupation of the public lands.

In 1950, there were 2,592,220 manzanas (1 manzana = 0.70 hectares) under various forms of cultivation, while in 1963 there were 3,815,352 manzanas, an increment of almost 47 percent. The 1950 Agricultural Census gives 47,286 as the total number of farms; thus the average farm size is 54.4 manzanas. The 1963 census puts the total number of farms at 64,621 and, therefore, the average size of farm at 59.04 manzanas.

Relating these figures to the number of agricultural workers in census years, one finds for 1950 about 17 manzanas per agricultural worker, and for 1963 about 19.56 manzanas per worker. The increase in the labor force and the increase in the number of farms in this same period together indicate that each new farm has 2.7 workers, bringing down the average number of workers per farm from 3.1 in 1950 to 3.0 in 1963. This reduction in the average number of workers per farm may not seem very significant in itself, but considering the increase of a little over 8 percent in average size of farm, the figure translates into an increase of 15 percent in the number of manzanas per worker.

Why and how has this reduction in the average number of workers per farm and the average number of workers per land unit taken place?

Interviews with approximately 300 farmers from most areas of the country indicate the possible existence of several interesting and serious trends. First, approximately 70 percent of the interviewed farmers who regularly used hired labor throughout the year or had done so in the past, had in fact reduced labor inputs per unit of land after 1950. This reduction varied considerably and seemed to be related primarily to the principal crop, although in some cases the productive structure of the farm itself has been changed by increasing the relative importance of activities demanding less labor per land unit. At any rate, reductions in the use of labor per unit of land varied from about 20 percent to 60 percent. Highest reductions were generally found at farms producing exclusively dairy products, and these were achieved in all cases by changing the system of producing fodder. Earlier basic green feeds were primarily annual crops which had to be planted, cultivated, cut, and chopped but now permanent pastures are used as the only source of green feed. These pastures need little care, apart from occasional applications of fertilizer, relying on the cows to do the cutting and chopping. The yields and the nutritional values of these pastures seem no lower than those secured from annual crops, so the value of production per land unit has not decreased.

At the other extreme, the lowest reductions, with some exceptions, were associated with farms engaged primarily in beef production which had the highest land-labor ratio to begin with.

Other farms are substituting capital for labor by using mechanical means to plant, cultivate, and harvest crops, particularly in Guanacaste on the Pacific coastal plain, where the topography allows extended and efficient use of machinery in producing various crops, particularly cotton, rice, and corn. Tractor use in this region increased 12.3 times, mechanical planters 15.4 times, and mechanical harvesters 14 times between 1955 and 1963.

Even coffee farms showed a reduction in labor inputs, primarily by substituting herbicides for manual tools, and by using coffee varieties which require less pruning. Heavier reductions have been carried out in the processing and selection of the coffee bean. In one instance, the use of labor in the selection of the processed coffee beans was reduced by over 90 percent through the installation of a mechanical selector.

There may be, then, a movement away from labor intensive methods of production, at least on some commercial farms (defined as ones using hired labor throughout the year). Farmers who had reduced labor input per unit of land were asked the reasons for such a decision, and about 64 percent of those responding mentioned either one or both of the following factors: 1) Enforcement of increasing minimum wages and of the labor code in general; and 2) additional cost of compulsory contributions to the welfare programs, now extended to most regions.

Another factor mentioned was the relative ease of obtaining credit for certain labor-saving activities, notably on beef production, which has expanded greatly; the increment in grazing land accounted for approximately 49 percent of the total increment in farm land between 1950 and 1963. Favorable credit terms for the purchase of farm machinery also provide incentive for heavier mechanization.

If the commercial subsector is not providing enough employment opportunities, where do landless farm laborers go? Many go to new areas where they hope to occupy a plot of public land, and in most cases they become subsistence farmers. This is why and how the agricultural sector as a whole has absorbed additional workers, even in the face of an increasing land to labor ratio. One new area visited, consisting mostly of subsistence farms, showed a population increase of 86 percent between 1950 and 1963. Most of the farmers interviewed had come there because they could not find employment in settled areas.

Area planted to corn increased by 7.3 percent between 1950 and 1963, while total corn production decreased by 8.46 percent. This happened in the face of corn yield increases per land unit of over 50 percent on some commercial farms. Corn is a chief product on subsistence farms, and various studies show that corn yields on these farms are very low. Thus a decrease in the total production of corn, despite an increase in the area planted to it, may indicate an expansion of subsistence farming. Average labor productivity in agriculture decreased by almost one percent per year between 1963 and 1965 despite increased mechanization and greater amounts of land per unit of labor, which points to increasing average productivity of labor in the commercial subsector. If all this is true, then the distribution of income is rapidly deteriorating in the agricultural sector.

Thus, economic growth in the agricultural sector has not meant economic development in terms of a restructuring and expansion of economic opportunities.

VII. THE NATURE OF SUBSISTENCE AGRICULTURE IN COSTA RICA

Very little of literature on the nature of subsistence agriculture distinguishes between traditional subsistence agriculture and non-traditional forms of subsistence agriculture. Both are basically characterized as systems in which land and labor have very low marginal and average productivities and in which things are done in an unscientific and customary way.

Traditional agriculture has been defined as follows:

> All agricultural sectors in which the state of the arts and the state of preferences and motives for holding and acquiring agricultural factors as sources of income streams have remained approximately constant for a long period--long enough for suppliers and demanders of agricultural factors to have arrived years ago at a particular long-run equilibrium--belong in this class.[27]

According to this definition, much of the subsistence agriculture found in Costa Rica is not traditional. The basic characteristic of traditional agriculture is its state of economic equilibrium "based on the state of the arts underlying the supply of reproducible factors of production, the state of preference and motives underlying the demand for sources of income, and the period of time in which these two remain constant", this period of time

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[27] T. W. Schultz, Transforming Traditional Agriculture (New Haven: Yale University Press, 1964), p. 30.

being "one or more generations."[28] Costa Rica has subsistence agriculture as the term is usually understood; i.e., economic units are self-sufficient in that they produce most of what they consume, have very little surplus production and hence a very limited participation in the market, and the productivity of labor is so low that it allows only a subsistence level of living.

Yet Costa Rican subsistence agriculture is not traditional because the people in this sector, particularly those living outside the Meseta Central, are oriented toward economic change and development. Obviously their expectations are not being fulfilled.

This distinction has important policy implications because the urgency of accelerating agricultural development within the restrictions of scarce development resources demands a clear understanding of the nature of the different types of subsistence agriculture.

The people of Costa Rica have had in increasing numbers to find economic opportunities outside the Meseta Central. This rather recent occurrence is due mainly to demographic growth. Most subsistence agriculture is found in recently settled areas outside the Meseta Central. Many of the migrant farmers from the Meseta Central had worked as hired labor on modern farms using

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[28] _Ibid._, p. 31.

technical methods of production.[29] Present subsistence farmers exposed to such methods cannot be considered to come from the "traditional" sector, and their new activity as subsistence farmers cannot be considered a mere transplantation of an old system to a new area. Their economic decisions are not based on past experience, for this is a new experience for them. Not only must they deal with different climatic and soil conditions, but also with a very different social and economic environment. Migration outside the Meseta and into the Atlantic or the Pacific coastal plains is in many cases equivalent to being excluded from the economic system; i.e., before they moved settlers enjoyed such basic state services as health and education, as well as a certain security of expectations provided by labor legislation.

Migration to the frontier demands a period of adjustment and struggle in a new total environment. For most, some source of off-farm employment is necessary before the first crop is harvested, since credit or savings are usually nonexistent. This source of employment and income is invariably provided by commercial farms. Settlers must devise new methods of survival which may be unscientific, pre-market and pre-state, but which are not traditional (i.e., methods to which they adhere by family custom). Reversion

[29]For empirical evidence on this point see W. Jimenez, Migraciones Internas en Costa Rica (Washington, D. C.: Unión Panamericana, 1956), pp. 85-90.

to more primitive methods is a temporary adjustment to a new environment or at least is so regarded by the settlers.

Whether the adjustment is in fact temporary is a question of great interest, central to the process of economic development in these areas. If it is temporary, economic development or economic demise occurs depending on the forces bringing about change; if it is not, traditional subsistence agriculture sets in. Downward revision of expectations is the most important step toward establishing and maintaining a traditional subsistence agriculture. This notion is an empirically testable proposition involving a change in behavior. In Dewey's terminology what is involved here is a change from "desiring" to "wishing", from the desire for economic growth expressed by activity and effort to wishing for economic growth with no effort in that direction.[30] In some areas settled for a number of years where there seemed to be no economic growth, as evidenced by the prevalence of subsistence farming, the interviewed farmers said that nothing they can do will change the existing state of affairs. They have stopped trying.

As pointed out earlier, however, much of the subsistence agriculture in Costa Rica is not represented by the situations just described. However, a process of constant upward revision of expectations and rising levels of achievement must be achieved if

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[30]See John Dewey, Theory of Valuation (Chicago: University of Chicago Press, 1939).

development is to take place. The most necessary condition is obviously achievement of certain expectations.

The most common reason for migrating outside the Meseta is to acquire a piece of public land by occupation or to buy the right to occupy the land from an earlier occupant. These migrants equate the right to land use with economic opportunity and hence regard land as the means to economic growth. In their place of origin possession of land is in fact objective economic opportunity. But land can only be productive in correct proportion to other factors of production: capital, labor, management, and accessibility to markets. Enlarging and proportioning these factors is the best way to ensure economic growth.

Even if subsistence farmers were considered efficient in proportioning production factors, economic growth would not be assured. Subsistence farmers would also have to enlarge these factors in a continuous process. So long as farmers produce for use value only, no physical capital is created, which then becomes the limiting factor of production.

That land is not the limiting factor of production in "frontier" subsistence agriculture is shown by two prior studies as well as field observation in the present study. Table 7 shows the number of hectares cultivated for all crops in four tenure groups in San Vito.

Table 7. Land Use and Tenure, San Vito, Costa Rica, 1964

Tenure group	Area Cultivated		Area not Cultivated	
	Average in hectares	Percent of total	Average in hectares	Percent of total
Costa Rican owner	4.0	7.0	56.9	93.0
Italian owner	10.7	35.0	19.8	65.0
Occupant	4.0	11.6	30.8	88.4
Squatter	2.4	18.8	10.4	81.2

Source: Hill, George, Manuel Gollás, and Gregorio Alfaro, Un Area Rural en Desarrollo (Ciudad Universtaria, Costa Rica, 1964).

A study by UNESCO in three areas where subsistence agriculture is prevalent yielded similar results as seen in Table 8.

Table 8. Farm Size, Land Use and Immigration, All Tenure Groups of Three Subsistence Areas, Costa Rica, 1952

Zone	Average size of farm in hectares	Average area not cultivated in hectares as percent of total area	Immigration as percent of population
Frailes	9.8	76.8	43.5
Valle General	11.7	81.3	62.0
Nicoya	12.2	74.9	61.0

Source: UNESCO, Proyecto Pilato de Educación Rural (San José, 1952).

The uncultivated land in this survey is completely idle and is not used for any purpose, even shifting cultivation.

Under situations characterized in Tables 7 and 8, the formation of physical capital stops after the minimum production for subsistence is secured. As long as the farm does not provide subsistence for the farmer and his family, he will have to work as a part-time laborer on a commercial farm. In order to free himself from being a hired laborer, the farmer will continue the process of land clearing. Up to that point the expected beneficial behavior of other people is not taken into consideration in his decision to invest. When minimum subsistence needs are secured and a surplus could arise, it is not expected uses of production but expected transactions on the markets which become the main variable influencing investment decisions. This critical point in the development process is the time when technical production methods could more easily be introduced. When the "right" conditions do not exist, however, production of cash crops and the integration of the farm into an exchange or credit economy is impossible. State action should be taken to promote economic development in subsistence farming areas. Facilitating development is less difficult when individuals are actively looking for ways to improve their economic well-being than when economic progress is regarded as an impossible task. Thus the state could promote economic development in these areas without committing large amounts of its scarce financial resources.

Specifically, if the state provides a certain degree of security of expectations to the subsistence farmers--if working rules are established to assure farmers adequate return for their efforts and if certain services are provided to increase productivity--then production in these areas will certainly increase providing funds for provision of public services to further facilitate production.

Insecurity of tenure is one of the main sources of insecurity of expectations. When a farmer has no tenure security, he tends to engage in exploitive farming rather than in investment-oriented agriculture. Improper exploitation of land not only results in low rates of capital formation but also in rapid deterioration of soil fertility, perpetuating low levels of production and income.

One study in a frontier area showed that incomes of farmers with legal land titles were almost 100 percent higher than incomes of farmers occupying a plot of similar size without legal titles.[31] Yet the Instituto de Tierras y Colonización has estimated that in 1963 there were approximately 17,000 plots occupied without legal title, involving some 246,000 hectares.[32] In other words, about 25 percent of all farms in Costa Rica in 1963 were not legally owned.

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[31] Hill, Alfaro, and Gollás, _op. cit._, p. 26.

[32] These figures are quoted in _Características de la Actividad Agropecuaria en Costa Rica_ (San José: Oficina de Planificación, 1965), pp. 177-181. It is not clear whether these plots were counted as farms in the 1963 agricultural census.

In areas where subsistence agriculture is relatively widespread, this percentage is much higher. In the province of Guanacaste, about 50 percent of the farms were occupied without legal title. Even though there are procedures whereby a legal title can be obtained, the costs in terms of money and effort are excessively high, relative to most farmers', especially most migrant farmers' incomes. The average cost of titling is about U.S. $150, and six months to a year of continuous effort.[33] These procedures could be considerably simplified and made less costly if local governments were empowered to administer them.

Another important factor is that subsistence farmers receive little or no technical assistance. The Agricultural Extension Service, administratively and financially dependent on the central government through the Ministry of Agriculture, had in 1965 only 33 agents for a total of 64,621 farms. Again, the provision of technical services could be the responsibility of local governments, coordinated through a central agency.

Most subsistence areas lack public facilities and services, such as roads, schools, hospitals, etc. Almost none of these areas expect the central government to provide such facilities, due to lack of effective representation in the central government--subsistence farmers do not have political citizenship. As matters stand now, local governments have little political power and depend financially on the central government. Provision of public

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[33] Hill, Alfaro, Gollás, op. cit.

services by the local government depends on the amount and the manner in which funds are allocated to them by the central government. Even if individuals in general can actively participate in local government, this participation does not assure them political citizenship.

If the local governments were made more independent financially, and if they were allowed to decide the amount and kind of public services to provide to their respective communities, based on their own ability to finance such services, then tax collection would be less difficult. Individuals presumably pay taxes more willingly for local services which they can see and control. Furthermore, the ability of the people in these areas to pay taxes would progressively increase as production increases were facilitated by public services and reasonably secure expectations. In particular an individual should have the right to call on local government to enforce working rules which protect his liberty and opportunities.[34]

Of course, existing climatic and soil conditions of some

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[34] Commons distinguishes between a citizen's remedial and substantive powers. The remedial are those empowering a citizen to call upon the state to remedy wrongful acts against him; substantive powers are reflected in the capacity of the citizen to call upon the state to make his own will effective in lawful acts, such as the use of the powers of the state to collect debts or prevent trespass. In general, the freedom of the citizen is made meaningful and effective by the remedial and substantive powers. John R. Commons, Legal Foundations of Capitalism (New York: The Macmillan Company, 1936), pp. 108-121.

areas do not provide a basis for permanent, investment-oriented agriculture, at least under current technology. This is the case for much of the Atlantic region where tropical rain forests predominate. These areas should, at least at present, be protected from spontaneous settlements, since settlers in these areas have resorted to extensive use of shifting cultivation. Such practices render relatively large amounts of land useless for future production. It is difficult, under population pressure, to prevent people from subsisting wherever they can. However, if other areas with a base for permanent investment-oriented agriculture can provide more employment through higher rates of economic development, the present need to use the rain forest areas may be reduced.

Balanced regional development may more easily be induced by giving more power and greater financial independence to local governments. They should be allowed to establish local working rules that are more closely fitted to the needs of each particular area. The general idea is to provide greater opportunities for the attainment of political citizenship through greater participation in local government. If political citizenship is extended, economic citizenship will more easily follow, since individuals can command the beneficial actions of local government.

The Land Tenure Center is a cooperative research and training program of the American Nations, the Agency for International Development and the University of Wisconsin-Madison.