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THE MARKETING SYSTEM IN NICARAGUAN AGRICULTURE  
AND ITS IMPROVEMENT THROUGH  
EXTENSION EDUCATION

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## INTRODUCTION

In Nicaragua, where the main income source is agriculture, the markets are not well organized. The lack of an orderly marketing system for farm products has greatly influenced the pattern of agriculture.

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The limitations inherent in the present situation have not only narrowed the opportunities for farmers, but also deprived consumers of large quantities of food and other agricultural commodities which could be produced locally. The process of selling agricultural commodities in the country is generally full of hardships. In order to stay in business, the middlemen receive a large percentage of the consumer's "costs" (the country's resources). Regardless of the inefficiency of their methods, the cost of their services and their profits tend to reduce the price the farmer receives and increase the price the consumer pays.

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The importance of a study about the marketing of the markets in Nicaragua is evident. While there is so little published information, this study will be based on a description of the local marketing problems which have been acquired merely by observation and experience.

The concepts of marketing in agriculture are introduced in an attempt to visualize the departure of Nicaragua's marketing conditions from the ideal. Statements of the situation will be followed by a general analysis and recommendations which seem to be appropriate in seeking general solutions of the problem.

Improvement of marketing through extension education will also be discussed, for which some accepted concepts and philosophies will be defined. Finally, as the question of economic development in

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In Nicaragua, where the main income source is agriculture, the markets are not well organized. The lack of an orderly marketing system for farm products has greatly influenced the pattern of agriculture. The limitations inherent in the present situation have not only narrowed the opportunities for farmers, but also deprived consumers of large quantities of food and other agricultural commodities which could be produced locally. The process of selling agricultural commodities in the country is generally full of numberless middlemen. In order to stay in business, the middlemen receive a large percentage of the consumer's "cordoba" (the country's currency), regardless of the inefficiency of their methods. The cost of their services and their profits tend to reduce the prices the farmers receive and increase the prices the consumers pay.

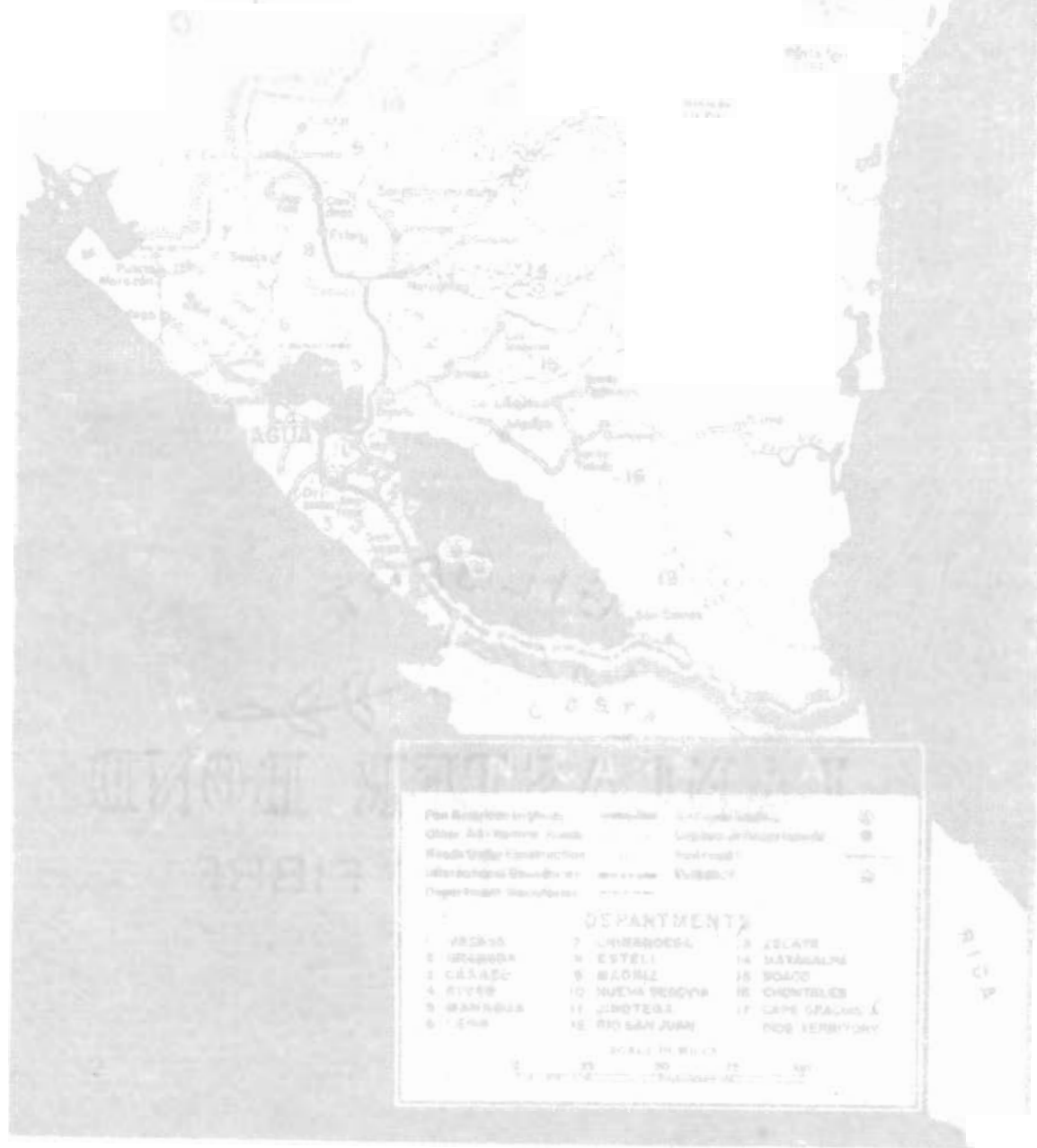
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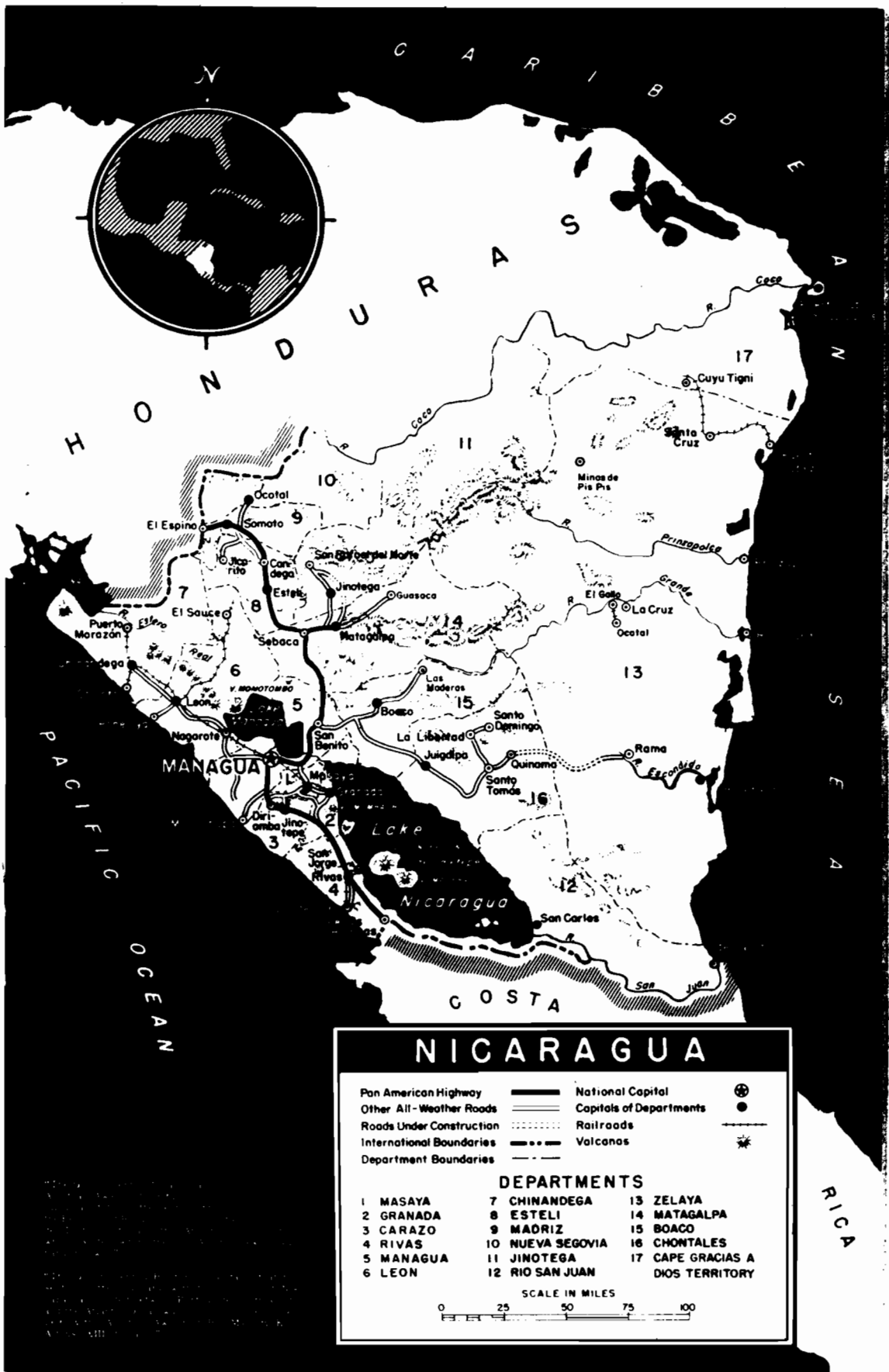
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Improvement of marketing through extension education will also be discussed, for which some accepted concepts and philosophies will be defined. Finally, as the question of economic development in

Nicaragua has been one of the major issues of the government policies for the past few years, a discussion will also be included about the concept of marketing improvement in the development of agriculture.

As a background for readers not familiar with the country, Chapter I presents some aspects of the geography and climate, as well as other pertinent information about Nicaragua.



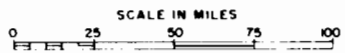


# NICARAGUA

- |                          |       |                         |     |
|--------------------------|-------|-------------------------|-----|
| Pan American Highway     | —     | National Capital        | ⊙   |
| Other All-Weather Roads  | —     | Capitals of Departments | ●   |
| Roads Under Construction | ---   | Railroads               | —+— |
| International Boundaries | ---   | Volcanos                | ★   |
| Department Boundaries    | - - - |                         |     |

## DEPARTMENTS

- |           |                  |                                  |
|-----------|------------------|----------------------------------|
| 1 MASAYA  | 7 CHINANDEGA     | 13 ZELAYA                        |
| 2 GRANADA | 8 ESTELI         | 14 MATAGALPA                     |
| 3 CARAZO  | 9 MADRIZ         | 15 BOACO                         |
| 4 RIVAS   | 10 NUEVA SEGOVIA | 16 CHONTALES                     |
| 5 MANAGUA | 11 JINOTEGA      | 17 CAPE GRACIAS A DIOS TERRITORY |
| 6 LEON    | 12 RIO SAN JUAN  |                                  |



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## CHAPTER I

### GENERAL INFORMATION

#### Geography and Climate

Nicaragua, the largest of the Central American Republics, has a total area of 57,000 square miles (about the same size of Wisconsin) including 3,500 square miles of inland lakes. It extends from the Atlantic to the Pacific and borders Costa Rica to the South and El Salvador and Honduras to the North. The country has four natural regions: The western plains (sea level to 200 feet), the comparatively small Managua-Carazo uplands (1,300 to 4,000 feet), the mountain region in north-central Nicaragua (1,500 to 5,500 feet), and the eastern plains to the Atlantic, which comprise over half the total area of the country.

Mean annual temperature at sea level is 84 degrees F. There is a decrease of about 3 degrees F. for each 1,000 feet of elevation. The dry season extends from early January to mid-May. Average humidity in Managua in the most humid month (June) is 84 per cent, in the driest month (April) 62 per cent. Average annual rainfall ranges from 45 inches at Managua to 80 along the Pacific Coast and 150 along the Atlantic.

#### Population

According to the census of 1950, Nicaragua's population was 1,057,032; estimates as of June 30, 1956 place it at 1,288,007. Sixty per cent of the population live in a strip along the Pacific 200 miles long, and 12 to 60 miles wide; thirty-two per cent live in the rest of the sierras, and only eight per cent in the eastern plains. The

economically active population in 1950 was 329,976 as follows:

Agriculture and Livestock ...	223,568
Industry .....	37,557
Public Services .....	34,822
Commerce .....	15,396
Transport .....	6,203
Mining .....	3,178
Public Utilities .....	616

Two-thirds of the population are classed as rural and one-third urban, but the distinction is less sharp between these groups than is normal in more highly developed countries; for example, the city worker is often a seasonal crop picker. The estimate rate of increase of the population over the last ten years is about 3.4 per cent annually.

#### Structure of the Economy

A special mission of the International Bank for Reconstruction and Development resided in Nicaragua from the summer of 1951 to the summer of 1952. The recommendations of the mission are found in a report which analyzes the resources of the country and shows how these may be harnessed to various sectors of the economy, agriculture, communications, education, public health and industry. The recommendations are then gathered up in a Five-Year program of development covering the sectors named, to cost U.S. \$76 million. The document, being not only a survey of existing conditions, but also the blue print of a plan, is of great interest. The Government accorded its formal approval of the plan at the end of 1952 and since then has been working along the lines proposed.

The Nicaraguan economy is predominantly agricultural. The gross national product in 1950 was estimated at 1,027 million "cordobas" (7 cordobas equal U.S. \$1) of which 40 per cent was agricultural. The gross national product was broken down as follows (in million cordobas):

Agriculture .....	416
Manufacturing .....	145
Commerce and Finance .....	108
Government .....	63
Mining .....	60
Construction .....	54
Transportation and Communications .....	37
Professional and Domestic Services .....	27
Power .....	11
Others .....	106
Total .....	1,027

#### Agriculture

Nicaragua's major crops are cotton, coffee, sesame, sugar, rice, corn and beans. Sorghum, cacao, yucca, tobacco, bananas, plantains, and a variety of other fruits and vegetables are produced on a smaller scale for the local market. Cotton and coffee are by far the most important products from a foreign exchange point of view--exports of these two commodities accounting for roughly 75 per cent of total export value in 1955. Comparative figures of production of major crops in recent years are shown in Table 1.

Cotton planting has expanded remarkably in the last few years, and production has increased from virtually nothing in the years prior

Table 1 - Production of major crops, 1942-43, 1953-54,  
and 1954-55 crop years

(In thousands of quintals)\*

Commodity	1942-43	1953-54	1954-55
Coffee	248	425	550
Rice	60	760	358
Cotton fiber	30	505	1,031
Cotton seed		900	2,063
Sugar	270	710	799
Sesame	89	175	189
Corn	380	3,010	2,083
Beans	300	580	683

\* One quintal equals 101.4 pounds.

to 1950 to 200,000 bales of 500 pounds each in 1954-55. Although concentration on cotton probably will diminish during the next several years, owing to world market uncertainties, little doubt exists that cotton has established itself as a money earner in the Nicaraguan export economy.

With some four million new coffee trees planted since 1951, a general upward trend can be predicted for the production of coffee, especially so long as prices for mild varieties are favorable. Production in 1954-55 was 550,000 quintals and in 1955-56, 516,000 quintals, the largest coffee harvest in history. A new record yield of 630,000 quintals was predicted for 1956-57.

Production of food crops increased steadily from 1950 to 1954, but in the last two years attention to cotton has resulted in some decline in the production of these items. Particularly noticeable have been the drops in production of the basic diet items - corn, rice, and beans. To meet national consumption needs, emergency imports were made

of those commodities, although Nicaragua has traditionally exported them.

#### Land Distribution and Ownership

The agricultural census of 1951-52 indicated that of total land area approximately 6 per cent was devoted to permanent cultivation, 12 per cent to annual cultivation, 6 per cent to fallow, and 27 per cent to natural pasture, leaving 49 per cent unused. Distribution of land ownership is given in Table 2.

Table 2 - Distribution of farmland ownership, by size  
(In manzanas)\*

Size of farm	Number of farms	Total area
1 to 5	10,214	26,126
5 to 10	7,729	51,666
10 to 20	8,621	112,911
20 to 50	10,687	319,770
50 to 100	7,829	490,933
100 to 200	3,782	459,142
200 to 500	1,874	509,236
500 to 1,000	483	307,480
1,000 to 2,500	256	355,559
Over 2,500	106	755,966

\* One manzana equals 1.74 acres.

These statistics indicate that 1.6 per cent of the total number of landowners control 42 per cent of all the farm area; farms smaller than 50 manzanas account for 72 per cent of all farms.

The agricultural census also shows the area planted and production of several crops classified by size of farms, but no data are available regarding commercial and export production as a percentage of the number of farms which actually export their production. Even though, it can be said that farmers owning or operating a farm larger

than 50 manzanas will be producing commercially and those with considerable amounts of land will produce both for local supply and for the export market. In the case of coffee, the production of small farmers can also be regarded as production for export.

#### Livestock, Forestry and Fishing

Livestock and timber are additional important elements in Nicaragua's production. Both commodities have figured for many years in the country's top eight exports, and they are likely to be developed into much more significant factors in the national economy. Present cattle population is about 1.2 million head - Brown Swiss and Brahman breeds prominent in the present programs of herd improvement. Cattle population is classified in the census as follows: Bulls, 36,068; Cows, 476,407 (about half of them actually producing milk); Oxen, 65,199; Calves, 604,336.

Actual forest is estimated to cover approximately 7.1 million hectares (one hectare equals 2.47 acres) containing 5.5 million hectares of evergreen hardwoods, 800,000 hectares of evergreen softwoods, and 800,000 hectares of deciduous hardwoods.

The nation's fisheries potential never has been commercially exploited except for limited local consumption.

#### Industries

Nicaragua's industrial output is of considerable range, but almost all of it is produced either in homes or in small, poorly equipped factories. In 1950, according to estimates by the Central Statistical Bureau, manufacturing industries contributed around 64 million cordobas to the national income and home industries around 81 million cordobas -- together less than 10 per cent of the national income.

Leading manufactures include sugar, beer, soft drinks, textiles, cement, cigarettes, soap and matches. With some exceptions, output has been generally static for the past few years. Only a few firms are expanding operations or installing new equipment.

It is apparent that Nicaragua cannot develop a heavy metallurgical or chemical industry since the basic requirements of cheap power, fuel and raw materials are completely lacking and nearby markets are small. Long-run development of hydroelectric power may permit some small electrolytic industries (such as caustic soda, chlorine and related products based on solar salt) but the market aspect undoubtedly will be the major deterring factor.

The wide variety of agricultural products offers the opportunity for a balanced growth of small industries using local raw materials, particularly cotton, meat, hides, dairy products, and fats and oils.

#### Transportation and Communications

Although highway construction remains the Government's top priority program, much remains to be done before the country's road system is adequate to serve Nicaragua's expanding economy. Of a total road network of 4,500 kilometers, only 2,000 kilometers are all weather roads and only 370 are paved. Most of the better roads serve the west coast, where the population is heavily concentrated. Feeder roads are needed to enable the more remote areas to share in the economic advantages of modern transportation.

Nicaraguan railways are a national enterprise operating under the name of Ferrocarril del Pacifico de Nicaragua. The total length of track is 270 miles, the most important stretch being from Corinto through the capital Managua, to Granada, a distance of nearly 125

miles. The entire system was reconditioned in 1954 with up-to-date German locomotives, autocars, rolling-stock and permanent way. It can be noticed that the railway system serves only the well populated but strictly limited area of the Pacific slopes. There are at present no plans to enlarge it, and the internal transport of the future will undoubtedly be by air and road.

Nicaragua is well served by several international airlines and a Nicaraguan company called "La Mica" which links Managua (the capital) with the Atlantic Coast by means of a daily service.

The principal ports of the country are Corinto and San Juan del Sur, on the Pacific Coast, and Puerto Cabezas and Bluefields on the Atlantic. Corinto, which handles about 60 per cent of the seaborne trade of the country, is the only port at which vessels of any considerable size can berth, and is the only means of connection by rail with the capital. The Atlantic ports handle relatively little incoming cargo, but the bulk of the country's exports of timber and bananas passes through them.

The postal, telegraph, and telephone system are under the control of the Director-General of Communications. Telegraphic and telephonic communications are maintained between the capital and the principal cities and towns of the western region, and there is telegraphic communication between the eastern and western regions. The old fashioned telephone was replaced in 1954 by an automatic system.

#### National Income

Gross national product in 1951 amounted to approximately \$170 million, with an average per capita income of around \$155. With a

concentration of income in the hands of a relatively small sector of the population, and a system of taxation which rested very largely on consumption, average income for the overwhelming bulk of the population, after taxation, is probably less than \$100 per year.

While two-thirds or more of the population are directly engaged in agriculture, forestry and mining, the gross value of product of this sector accounts for slightly less than half the national income. Commerce, manufacturing, construction, finance and services make up the other half of the national income.

Until 1950 there was no system of direct taxation in the country. The Government's revenue came mainly from customs duties and indirect taxes on the sale of standard articles of consumption, including food-stuffs. The increase in the export value of Nicaragua's agricultural products was raising the national income by leaps and bounds, but the country as a whole was deriving little or no advantage from the unexpected access of wealth. There was an intense concentration of income in the hands of the fortunate few, and the additional funds coming into private hands were running away in purchases of land, house construction, durable goods, foreign education, travel and so forth.

The first step towards fiscal reform was implicit in the exchange surcharges introduced by the Exchange Control Act, 1950. A second step was taken shortly afterwards, when an export tax was imposed on coffee with the specific aim of financing road construction. The third step was taken in 1951 when a special tax was imposed on coffee and cotton profits.

These measures were evidently preparing the way for a general income tax. On January 1, 1953, an Income Tax Act, which had passed

into Law the previous month, took effect. The special profits tax on coffee and cotton has been merged into the general tax, while a variety of consumption taxes, notably those affecting the price of meat, other foodstuffs and medicinal goods, have been repealed. The initial exemption provided under the Income Tax Act is approximately \$3,000. The export tax on coffee is being retained as part of the fiscal system of the country.

### Education

Much uphill work is being undertaken in this field. Primary Education is compulsory for children between the ages of six and thirteen years, and it is free. Actual attendance varies according to locality, the percentage in the outlying districts being very low. In primary education there are about 2,000 schools with more than 4,000 teachers and 80,700 pupils. There are 10 public institutions for secondary school with 135 teachers and 1,500 students. There are also 29 private high schools with 327 teachers and 2,300 students. In the secondary school level there is a commercial (public) school with 380 students and a Normal School for men and women accommodating about 400 students. The School of Agriculture was until recently (1956) of a high school type; it is now a Faculty of Agriculture under the Ministry of Agriculture. Farming is not taught at any other formal educational institution. The National University, located at Leon, has about 1,000 students, and faculties of medicine, law, chemistry, economy (new), engineering and arts, dentistry and humanities. The military academy, two training schools for nurses and the National Library are other educational institutions to be mentioned.

Illiteracy in persons above 10 years of age is 63 per cent - 83 per cent in rural areas, 34 per cent in urban. In urban areas 6 per cent of the population have finished secondary school; in rural areas the corresponding figure is only 0.3 per cent. Of the total population, only 0.3 per cent has any university training.

#### Statistical Activities

Statistical activities in Nicaragua are known to have been initiated as early as the year 1775, at which time religious authorities took the first population census of the country. This is reported in a publication of the Pan American Union in the series "Statistical Activities of the American Nations," No. 16 Nicaragua. The publication relates the development of such activities up to the present stage.

Nicaragua has taken eight population censuses during its independent history, one of them in 1906 of a "provisional" nature. The census program since 1940 has included: Two population censuses, in 1940 and 1950; two industrial and commercial censuses, in 1940 and 1954; one housing census in 1940; and one agricultural survey in 1952. Of the censuses taken in 1940, only the population census provided some summary results, the others not having been processed beyond the enumeration stage. The population census of 1950, the agricultural survey of 1952, and the industrial and commercial census of 1954 were taken as part of the program of the 1950 Census of the Americas. The main statistical agency of the Government is the Bureau of Statistics and Census under the Ministry of Economy, this agency is organized as follows: (1) Office of the Director; (2) Secretariat; (3) Demographic and Administrative Division; (4) Economic and Financial Division;

(5) Mechanical Tabulation Division; (6) Central Census Office.

There are no private agencies with their own statistical service or which produce statistics in Nicaragua. Nevertheless, a great majority of private institutions collaborate with the Bureau by furnishing it with required information. Other official or semi-official agencies which produce statistics by reason of their administrative functions include the Ministries of the Interior, Finance, Foreign Affairs, Education, Public Health, Development Public Works, Agriculture, Economy, and Labor, The General Bureau of Communications, the Nicaraguan Pacific Railroad, and the National Development Institute.

Statistical bulletins of the government appear irregularly, and those that do appear frequently contain detailed tables of little or no value.

Apart from the course on statistics given at the Superior School of Economics and those included in the programs of the Law School of the University and of the National School of Commerce, there are not other facilities for the study of statistics in the country. Neither are there any national statistical associations or societies.

The libraries of the Ministry of Economy and the Central Bureau of Statistics and Census have the most extensive collections of statistical materials.

## CHAPTER II

## THE CONCEPT OF MARKETING IN AGRICULTURE

Introduction

In the economy of a country there are two basic processes. One is production—the creation of goods and services. The other is marketing—distribution of the activities by which goods and services flow from the producer to the ultimate consumer.

A complex and elaborate set of practices, processing and handling facilities, and commercial "know-how" have come into being over the past hundred years to move the products of the farms to consumers. All this is called "marketing," or sometimes "distribution," when the emphasis is on the broad aspects of the problem. In brief, marketing comprises "those business activities involved in the flow of goods and services from production to consumption."<sup>1/</sup>

Studies on marketing were started at the beginning of this century in the more developed countries, prior to this development, it was observed that marketing expansion was changing with time in a complete free way, due to the absence of a rational orientation. Now, efforts are made to obtain efficiency in marketing, since it brings lower costs, better qualities, adequate packing, and more preserved products. The concentration of population in big cities, the increase in individual consumption by better standards of living, the knowledge in food diets and the natural increase of the population are the main factors pressing the solution of many problems involved in the commercialization of agricultural products.

Farm products must be processed into a form that consumers may use; the supply of these products must be released to consumers in an even flow, so as to span the interval between one surplus producing period and the next. It is the function of the marketing or distribution system to undertake these operations: processing, storage, orderly dispersement. Thus, it is usually said that the act of production creates form utility and the act of marketing creates time and place utility. This is not strictly correct, for when wheat is processed into flour and cotton fiber is spun into thread, form utility is also created.

#### Marketing functions

In the process of marketing certain functions have to be performed. To be socially necessary, an activity must be an essential part of making goods available at the place and time desired by the consumers. The nature of marketing, the reason for the development of certain agencies and the incurring of various costs, can best be appreciated by examining the major functions to be performed. Four major groups of functions are noted here: those related to: A. Exchange: 1. merchandising, 2. selling, 3. buying, 4. price setting. B. Information: 5. market news and information, 6. grading and description of products. C. Physical supply: 7. transportation, 8. storage. D. General business: 9. financing, 10. risk taking.<sup>2/</sup>

#### Marketing Objectives

Frequent public references to the "marketing problem" raise the question, What is the problem? What do people mean when they use this term? In a few instances, probably, do they have any definite idea

concerning a single problem. They are thinking about the assumed general inefficiency of marketing, the "small" proportion of the consumer's unit of money spent for food which is passed on back to farmers, the sometimes erratic price fluctuations for farm products, which are commonly attributed to deficiencies of the marketing system, the fact that many people may be suffering from malnutrition while producers search vainly for satisfactory markets for their food products.

Actually, there is no one marketing problem. Farmers, middlemen, and consumers have different ultimate objectives in their desire for better marketing, although the means to these ends may be similar in many respects. It is difficult even to state their general objectives in simple terms which stand up under careful scrutiny.

The consumer wants a marketing system which will provide adequate quantities of food and fiber products, of appropriate qualities, conveyed to him, with all necessary incidental services, at the lowest possible cost. But the terms "adequate," "appropriate," and "necessary" cover a multitude of questions which make the statement little more than a restatement of the original question.

The agencies which operate the marketing system, commonly referred to as "middlemen," have as their primary objective the largest possible total net profit. But this, too, is not as simple as it sounds. Total profits may be largest when profit per unit is relatively small. Not all middlemen seek maximum immediate profits.

The farmer's objective is a marketing system which will give him the largest possible returns for the products which he can produce most efficiently. Obviously, this statement also begs the question.

If it is assumed the production of fixed quantities of specific products, the problem is simple. The farmer would want to obtain the highest possible prices for these commodities. But marketing affects the kinds and proportions of products which can be sold, and these in turn affect the costs and efficiency of production. Therefore, the "perfect" marketing system, from the farmer's standpoint, is one which will induce him to produce those quantities of those products which, when sold to consumers, will result in maximum returns after deduction of minimum marketing charges for these commodities and his own production costs. This is complicated, but not ambiguous.

From the public standpoint, the marketing problem is how the operations involved in marketing can be rendered with maximum efficiency or minimum costs. Here, again, the difficulty of generalizing can be seen. "Marketing operations" may include services which from a social standpoint are not essential or which consumers or producers would not be willing to pay for if they had a choice.

In studying the subject of marketing, the approach must be affected considerably by which of these objectives is the primary goal....<sup>3/</sup>

#### Basic approaches to the study of marketing

There are three fundamental approaches to the study of marketing: the commodity approach, the institutional approach, and the functional approach. None of these three approaches can be used exclusively of the others. In the solution of a particular problem any two can be combined advantageously; in a study of the whole subject all three are necessary, for only by combining them can one obtain a true and complete picture of marketing in our society.

The commodity approach concerns the distribution of individual products and the gathering of full information about each. To present a complete picture of marketing through the commodity approach alone would be an endless task, since it would require examination of all the thousands of products distributed in the commercial world. Through its classification of types of commodities, the commodity approach provides an immensely useful tool for the description of marketing. It separates all commodities into two basic groups--industrial goods and consumer goods--each with its subdivisions. Industrial goods are those "destined for use in producing other goods or rendering services as contrasted with goods destined to be sold to the ultimate consumer." Consumer goods are "those destined for use by the ultimate household consumer and in such form that they can be used by him without further commercial processing." All products belong to one of these groups; some may fall into both classifications, depending upon their use.

Whereas the commodity approach analyzes marketing in terms of the goods marketed, the institutional approach views it from the standpoint of the agencies which do the marketing. It analyzes each wholesale and retail institution of the marketing mechanism. Almost invariably it places emphasis upon middlemen--upon the individuals or business organizations that specialize in performing the functions and services involved in the purchase and sale of goods as they flow from producer to consumer. The commonly followed classification of middlemen is useful in showing the scope of marketing: they are thus classified (1) by whether or not they take title to the goods they handle, and (2) by their position in the marketing channel.

Instead of describing marketing in terms of the commodities sold or in terms of the institutions transacting the business, the functional approach analyzes the economic services involved in the flow of goods from producer to consumer. Marketing functions were mentioned early in this chapter.<sup>4/</sup>

#### Operational Efficiency in Agricultural Marketing

The marketing system for farm products serves two broad purposes: (1) through assembly, processing, transporting, storing, distributing, and similar operations, to add form, time, and place utilities to the raw farm products in moving them from farm to consumer; (2) through the various mechanisms of exchange, to allocate these commodities among buyers, and the returns for them among sellers, and thereby to give expression sources in both primary production and marketing itself. The "efficiency" of the marketing system—and of its segments—must ultimately be evaluated in terms of effectiveness with which these purposes are served: the relationship between the consumption utility created and the resources used in its creation.<sup>5/</sup>

#### Research in Agricultural Marketing

Agricultural marketing research is constantly looking for improvement—that is, for changes which will result in economic benefits. The aim may be to raise farm incomes, to reduce price fluctuations, to increase efficiency, to accomplish wider distribution, to increase food consumption, or to reach some other economic or social objective.

How can one judge the economic effectiveness of the present marketing system or the economic consequences of proposals to change market organization or market practices? This can be done only by

economic analysis. It requires an understanding of economic theory and the ability to use the tools of economic analysis. So-called "practical" marketing experts occasionally disparage economic theory, saying, for example, that they "deal with facts, not with theories." But there is no conflict between facts and theories. Theory is the best available explanation of observed facts. Too much of the marketing research in the more developed economies has been devoted to the gathering and tabulation of statistical facts, and too little to the careful analysis of facts in such a way as to help in understanding them.

The economist who analyzes marketing problems needs to be especially familiar with such concepts as a demand curve and a supply curve. He must know how to estimate such curves from statistical data, and he must know how to use such curves in analyzing marketing problems.<sup>6/</sup>

The typical agricultural economist is not a promoter; he is a researcher or an educator. His creed is "give people the facts and they will know what to do." There is nothing wrong with facts, nor with analysis, nor with education, but economic ideas must be promoted if there is to be any action. Many sound ideas are buried in research reports and are dormant because they have never been successfully promoted.

Economic research and education do, of course, bring about a gradual improvement in public understanding of issues and of alternative ways of dealing with them. But before major changes are made, someone, or some group, usually must promote a specific program. Somebody promoted most cooperative associations, most railroads, most breakfast foods, most city markets, and most legislation.

Agricultural economists have paid too little attention to these promotional activities. Promotion of the wrong things can do great harm; promotion of the right things is necessary to progress in agricultural marketing—as in other fields. Economists have perhaps been too ready to confine themselves to armchair discourses on promotion and development work when the need is to study actual programs and to measure their economic effects. Market survey work is another field where the services of the economists are needed, and where an increasing amount of work is being undertaken by economists.

But above and beyond these, there are many fields of activity where economists should—and many do—work directly with those concerned in promotional endeavors in marketing. This is true of economists in private industry, of economists in colleges and extension services, and of economists in government agencies. Economists can and do help develop and promote sound ideas. And the extent that they are active and effective in this, they are more likely to be listened to when they oppose crack-pot proposals and the scheme of self-seekers. <sup>1/</sup>

The twin of marketing research is marketing extension and service work. Technical knowledge without application is worthless, or nearly so. Theoretically, extension work in marketing is supposed to "extend" the knowledge about marketing and solutions of marketing problems "to those who are in a position to apply this knowledge in improving marketing." <sup>g/</sup>

## CHAPTER III

## MARKETING IN NICARAGUAN AGRICULTURE

Introduction

The marketing of agricultural products is one of the phases of the production cycle, it comprises all the processes, operations, and services rendered from the time a product leaves the farm until it gets to the consumer.

In Nicaragua, the marketing methods used with almost all agricultural products are outdated with the exception of coffee and cotton (export products). Recently the only changes made, have been the little improvement of roads and the use of better means of transporting goods, namely: the trucks which are replacing the old oxcarts. The process of selling agricultural commodities is generally full of numberless middlemen. In order to stay in business, the middlemen receive a large percentage of the consumer's "cordoba," regardless of the inefficiency of their methods. The cost of their services and their profits tend to reduce the prices the farmers receive and increase the prices the consumers pay.

Knowing what marketing is and what are its functions, a great number of problems come to mind about the situation of the marketing system of Nicaragua, producers of farm commodities tend to regard production and marketing (if they have the idea of it), as being widely separate functions. Their failure to understand the interdependence that prevails between the two stems largely from a lack of orientation and education.

### Situation on Local Markets

Let us follow the products in general from the farm to the consumer. In other words, let us see what is the market channel of agricultural products in Nicaragua; the picture varies according to the size of farms and the location of them with respect to the centers of consumption as well as from the standpoint of the product itself. When harvest time has come the products start to flow to the market in what has come to be accepted as a normal condition due to the vicious circle shaped by the limitations of the antiquated marketing structure which has been operating for so long and to which the economy has had to adjust itself.

As was pointed out before to describe the picture of the marketing channel in Nicaraguan agriculture it is necessary to consider the characteristics of the products and the places where they are produced, a brief description of some typical products seems to be the better way of looking at the whole picture.

Corn is the major food crop of the country, it is produced by very small farmers as well as by those who can be classified as farming commercially. The small farmer harvests his crop mainly for his own use or to trade it in the neighborhood store for salt, kerosene, sugar and matches which are the only things that they need in the subsistence level of farming in which they live. The farmers who produce more corn than they need, take it in their oxcart to the local market (in this case local market has to be understood to be the countryside store or the small store in a nearby village) and sell it to the one who will give the best price. He first makes a round of the neighborhood and when he finds somebody interested in his product and

will give him a price which will amount to the amount to the money he needs, then he will sell. Nicaraguan farmers are not price-minded, that is in the real forces of price-making, the products that they can store in their poor facilities, stay there until they need some money for a particular purpose. This also applies for some of the producers of large quantities of corn. Of the two levels of farmers described, they get away from their region to the more important centers of consumption, but the corn they produce comes to these places through middlemen. Middlemen in this kind of business are not necessarily engaged in corn and other grains, they go from farm to farm selling or trading many things. From a needle to clothes and saddles they go by oxcart or by truck when the roads permit. When they have traded everything they get back to the cities and sell the corn to some of the wholesalers in the market places, who in the important cities are somewhat organized. The trucks loaded with corn usually come to the city in the early hours of the morning. They park along the streets surrounding the market place and there will be at the same time many buyers interested in the product and so corn has come to the real outlet for consumption. Farmers that can be classified as commercial farmers do not produce corn as the main enterprise of the farm. They have certain areas dedicated to it, usually from 20 to 50 manzanas and they sell their products as described before. In certain cases, the procedure is different depending on the facilities they have on the farm such as trucks, storage facilities, or the kind of business they can do in the city.

Corn is bought in varying quantities by consumers, depending on the level of living. Corn has to be processed in a great number of

ways in order to be used as food, namely: "tortillas" which is taken with every other food as bread. "Pinol" which is a powder is sometimes mixed with cocoa and it makes a fine drink and is taken with regular meals or between meals as a refreshment. Tamales, nacatamales, bunuelos, chicha, and a numberless other preparations are made from corn.

The preparation of corn for food is usually done at home, but many kinds are found already prepared in the market places or in the grocery stores.

The other grains which are produced in the country, as well as other dry products, come to market in a similar way. The three important food products are corn, rice and beans which never fail to be on a Nicaraguan table.

Fruits and vegetables come to the market in bulk without any selection or grading when they are in season; some vegetables and fruits are found in the market the year around but at very high prices. Production and marketing of fruits and vegetables are far from being done in an efficient manner, except in some parts of the country there are organized orange orchards as are found in Florida and California. When harvest time comes the fruit is picked from the trees and put into sacks, and that is the way it goes to market. Bananas and plantains are produced on almost every farm. Very seldom can a farm be found without the "chacra" which is the small or large area of the farm where these fruits are grown. In the eastern and southeastern parts of the country large plantations are found where they produce large quantities of bananas and plantains. When these fruits are in season they come to the market in large quantities for several consecutive weeks, when the price is very low. In a very short period of time large quantities

spoil due to the poor storage conditions in the market places and then the price becomes high. Refrigeration is not yet used either in trucks or the market storage places.

Nicaraguan people are still not educated regarding good diets and the best use of some of the products available in the market. For instance, vegetables are not common on the table, except in some middle class families, and among more educated people and in restaurants. Tomatoes and onions are used in seasoning the food more than as a way of providing a good diet.

Vegetables are produced in large gardens along rivers or on the lakesore as in the case of Managua where many small plots of different vegetables are located. These come to the market in baskets carried most of the time by the producer himself who has a place in the market stands or who will just settle outside the market place and start selling to the passersby. Vegetables produced in larger quantities come to the market in trucks very early in the morning and many "canasteras" (women with baskets who have a place in the market stands) will be waiting to buy from the trucks, which in this case can be regarded as the wholesale distributors of vegetables.

Tomatoes, which are a very perishable commodity, come to the market in quantities larger than needed in the market, even though, the prices are high. At the same time, it is common to get them cheaper as the hours pass, due to the fear of losses from spoilage.

Milk and cheese are marketed in different ways. Only Managua, the capital, has a plant for pasteurizing milk which is distributed in bottles to different grocery stores in the city where they have

refrigerators provided by the plant, and consumers in every neighborhood come to buy it at these places. In other parts of the country milk comes by truck, jeep, or even by mule, to the house of the owner of the farm where it was produced, and from here it is distributed to the final consumer. These distributors seldom have cooling facilities, and it should be mentioned here that milk is preserved at home by boiling it two or three times a day since few homes have refrigerators. Nicaraguan cheese is produced on many farms in blocks of from five to one hundred pounds. It is not sold in pieces of standard sizes, but is cut in the amount the buyers desire. For instance, if the buyer needs three pounds, the seller is very skillful and he will cut a piece that weighs very nearly three pounds. There are different kinds and qualities of cheese, all of them are white and the difference between them lies in the amount of butterfat content. A very popular type is a hard type like Italian Parmesan which can be preserved for quite some time without refrigeration. Butter is processed in both traditional and modern methods, some of it is still sold in bulk by the pound, but there are many factories which process it and sell it in packages and refrigerate it. There are other milk by-products either sold in grocery stores or processed at home.

Almost all farms and homes in the whole country (not quite so in the capital) have chickens and other poultry (turkeys and ducks mostly) and this is the source for poultry meat and eggs. Nowadays there are some farms which produce poultry as one of the main enterprises of their businesses and in these cases poultry raising is done with modern methods. Even so, eggs are sold without grading and chickens and other animals are sold in the markets alive. As mentioned before, many homes

in cities and towns have their own chickens in the back yard to provide poultry meat and eggs for home consumption. In Nicaragua houses still remain as in colonial times having very large patios which provide enough room for chickens. This is not true in the capital and other important cities where modern construction is becoming popular and new houses and store and office buildings are replacing the old structures, but still in the outskirts the picture is the same.

There is a limited amount of meat processing, especially of hams, bacon and sausages (chorizos), usually poorly cured. Animals are slaughtered under unsanitary conditions. The meat is sold the same day as slaughtered, since there is no refrigerated storage available. A few people have small refrigerators that can hold one or two carcasses at a time and they are attempting to cut and sell meat as it is done in the United States. A permit is required before an animal is slaughtered, but there are many clandestine operations. Every important city and some towns have slaughter houses with poor facilities and there are people who are in the meat business who have permits to slaughter animals and then take the meat to the markets to their stands, where it is sold by the pound in traditional cuts. One can get all the meat needed for the day's meal in one piece if desired. As in the case of tomatoes, if the sale of meat has not been favorable, as the hours pass the price becomes cheaper in order to prevent losses from spoilage. Farms in the hog business are not known. Hog production is a kind of side line and the use of processed feeds is not as yet popular. As in the case of chickens, there are some families who still keep pigs at their homes for their own consumption. Cattle production is a real enterprise in Chontales and Rivas where most of the farms

are engaged in cattle raising, both for milk and meat production. In the west coast almost every farm keeps a reasonable herd for providing both milk and meat. At present the majority of the cattle are pasture fed. During the rainy season the pastures are green--the milk flow increases and the animals gain weight. However, during the dry season the pastures are poor and the milk flow is reduced sharply or stops altogether and the animals lose weight. Supplemental feedings with silage, corn, cottonseed meal and hay made from legumes is becoming popular.

Lard is the main cooking fat for Nicaraguans. Since there are no modern slaughtering facilities, much slaughtering is done by individuals, who frequently kill a single animal and render the lard at the same time. The product is unrefined, liquid, and frequently rancid, with an off-flavor taste and odor. Lard is usually found in the same market stands for meats and each buyer has to have his own receptacle when he makes his purchase. The retail price of crude lard is usually very much higher per pound than that of meat from the same animal. Nicaragua produces a variety of oil seed and a small vegetable oil industry is being developed. There is a considerable local consumption of cottonseed oil as a substitute for the more expensive lard.

Sugar production ranges in quality from semi-bleached "plantation white" sugar, to the crude "dulce" made by evaporating the juice to dryness. Of more than 100 mills, only two are modern and obtain efficient yields. The many small submarginal producers, with their wasteful use of land and cane, were unable to compete with the larger mills in a free market. This led to the formation of the "Asociacion

de azucareros" (Sugar producers association), for the purpose of fixing prices and allocating production quotas to members. A natural result has been high domestic sugar prices well above world market prices. The two largest mills usually sell the bulk of their production to foreign markets, while the others compete for the small domestic market. Actually the local market can support only one medium-size, modern mill. The market for sugar for home consumption is not a problem as compared with other products.

Common salt (sodium chloride) is produced in Nicaragua by the evaporation of sea water. There is almost a complete lack of knowledge of the principles of salt manufacture. The present process is extremely crude and wasteful of both manpower and fuel, and results in a product which is impure chemically and often contaminated with beach sand. The usual practice is partial concentration of the sea water by solar energy, followed by final evaporation and crystallization in open pans heated by a wood fire. Salt is sold by the pound in almost every market stand selling grains and vegetables and in the popular corner stores. It is not packed in special receptacles but weighed in the quantities desired by the consumers in the popular "cartuchos," a folded cone shaped paper which is also used for most of the other ungraded and unpacked products.

Every one of the agricultural products of Nicaragua, presents different problems and irregularities which will, and this is said with optimism, in the future disappear as the development of the country progresses. Yes, the products come to the distribution and trading centers, and even here, before a product goes to the hands of the consumer, it will pass through some middlemen. These middlemen acting

in the distribution centers are engaged in this kind of business, more for the struggle for life and to make some money for their living than for rendering any kind of service in the market outlet. For example, in Managua there are three market places. Let us say in one of them the price of corn is two or three "cordobas" less than in any one of the others (this is common). Any person who can get some money for a few hours will go and buy a given quantity of corn where it is cheap and will take it to the other markets and make a profit of a few "cordobas" which will take care of the day's food for the family and that's that. Cases like this, some of them sometimes unbelievable, are very common with most of the products.

Vertical and horizontal integration in the process and marketing of agricultural products as done in the United States, do not exist in the country. The market places, grocery stores and the already mentioned corner stores, are the places from which the housewife gets her supply of foodstuffs. In some homes this supply is acquired in large quantities for a month's needs. In some commodities, such as grains, sugar, potatoes, etc., and some storage meat supplies for the week. But the average family, the poor people and even some families in the high brackets of income buy their food supply every day. From eight to ten o'clock in the morning, the maid or whoever is the one who will go to the market gets together with the housewife in order to decide what the menu will be for lunch and supper. After this decision is made, the maid with her basket will go to the market place and will go from stand to stand looking for the things she needs and for the lowest prices. An average family of about five persons will need to

buy the following items for a day's food in the market places; one pound of rice, one pound or two of red beans, two and a half pounds of meat (beef or pork) three tomatoes, a handful of onions (this is the way onions are sold) a quarter of cabbage, yucca one or two sticks, four plantains, one pound of cheese and some cents worth of one or two spices for seasoning. The items bought will vary with the menu and with the amount of money available for the day. Other items needed for the day's meal, such as sugar and salt, will be bought in the nearest corner store. Tortillas are usually sold in the streets, about twelve o'clock, by a boy or girl with a basket of tortillas asking how many the "patrona" will like for the day. The tortillas seller always becomes a sort of family friend. Sometimes he enters the house and he or she know where to leave the tortillas. All the items bought in the market place are neither wrapped or graded. The grains come in the "cartuchos" and the fruits and meat, as they are, or in a piece of paper or a tree leaf, to separate it from the other items. "la pana del mercado" as it is called in Spanish, the food basket, is colorful and tells of the family ways of eating. It is a common scene to see two or three maids in the street "tijeleteando" (a kind of gossip) about the taste of the family or how stingy the "patrona" is about the food basket. The items described are for lunch and supper. Nicaraguans always take lunch at home, They are required to take a snack along for the short time allowed at noon when working in some offices. For breakfast, which consists of coffee (boiled milk with a bit of "esencia," strong coffee), bread, butter, and a small amount of any food from the day before is prepared with items bought the same morning. As in the

case of "tortillas," bread is sold in the street also. Milk is bought from the nearby corner store, as well as butter. At five or six o'clock in the morning, the kitchen is all activities for the maid preparing breakfast or attending the bread man or checking on the items that are to be bought in order to have breakfast ready before the "patron" (the head of the family, the husband usually) goes to work, as well as children to school.

This description of the local marketing problems has gone Thus far. It is based merely on observation since statistical data and other pertinent information is lacking in the country. The export side of marketing will be discussed in the next section. Some reliable information is published, even though data of current trade is not released promptly.

### Exports

More than 35 products are grown commercially in Nicaragua and others are raised for home consumption. Still others have been tested and found suitable for the soil and climate. In addition, livestock and timber production and their by-products are important activities closely associated with crop growth.

The major products for export include coffee, cotton, sesame, sugar, rice, cattle and timber. Very rough estimates prepared by the Central Statistical Bureau for its national income studies, are appended in Tables 3 and 4, which indicate the value of total production for export and for domestic consumption. Table 5 gives the area planted and estimated volume of production of selected crops.

Coffee traditionally has been the principal cash crop. Exports of important crops such as cotton, sesame, sugar and rice have expanded

Table 3 - Value of agricultural and forestry production, 1950\*

(Thousand dollars)			
Product	Value of exports	Value of local consumption	Total value
Sesame	1,514	—	1,514
Cotton	1,842	1,032	2,874
Rice	302	3,080	3,382
Bananas	613	1,960	2,573
Cacao	49	690	739
Coffee	17,331	1,800	19,131
Corn	539	9,799	10,338
Cotton seed	204	220	424
Sorghum	—	2,876	2,876
Beans	59	3,980	4,039
Meat	291 (cattle)	7,053	7,344
Chicle	190	—	190
Rubber	3	98	101
Ipecacuanha	292	na**	292
Timber	1,742	6,851	8,593
Sugar	714	1,066 (cana)	1,780
Cheese	20	892	912
Butter	16	378	394
Lard	—	2,905	2,905
Hides and Skins	86	611	697
Charcoal	—	1,305	1,305
Poultry	—	1,278	1,278
Fish	—	248	248
Eggs	—	1,759	1,759
Milk	—	3,236	3,236
Fruits and Vegetables	—	2,120	2,120
Potatoes	—	785	785
Tobacco	—	2,200	2,200
Other products	102	1,829	1,932
<b>Total</b>	<b>25,909</b>	<b>60,051</b>	<b>85,951</b>

\* Taken from "The Economic Development of Nicaragua" (John Hopkins Press, Washington, D.C., 1953).

\*\* Not available

Note: Cordoba values converted to dollars at 1950 exchange rate of 5 cordobas to U.S. \$1.

Table 4 - Value of agricultural and forestry exports

(Thousand dollars)

	1939	1949	1950	1951	1952	1953	1954	1955	1956
Sesame	---	4,126	1,514	2,479	4,061	2,517	2,225	1,679	1,390
Cotton	253	212	1,843	5,457	6,838	8,403	16,764	30,976	23,567
Rice	---	1,619	302	1,484	880	3,465	1,345	323	27
Bananas	654	828	613	497	354	328	415	350	159
Cacao	50	98	49	108	91	46	33	182	140
Coffee	2,640	4,362	17,331	18,450	21,661	21,332	25,097	27,856	23,169
Corn	---	196	539	1,049	620	451	379	1	---
Cotton seed	24	31	204	113	566	880	1,540	3,317	3,383
Sorghum	---	---	---	184	---	70	84	6	---
Beans	1	70	58	122	335	240	155	8	63
Cattle	187	1,202	291	1,141	1,304	1,538	1,149	1,252	669
Chicle	---	101	189	230	305	320	298	356	360
Rubber	27	---	3	129	14	12	6	30	20
Ipecacuanha	76	325	292	639	230	258	236	276	85
Timber	363	1,390	1,742	1,987	2,788	3,942	2,926	3,528	3,307
Sugar	83	399	714	1,411	929	962	1,113	939	429

Source: Memorias del Recaudador General de Aduanas

3/ Sugar production from 1953-54 to 1956-57 is given in Tons of 2,000 pounds.  
Source: Boletines de Estadística Nos. 2 and 5 (Central Bureau of Statistics)

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Table 5 - Cultivation and estimated production of selected crops  
1950-51 to 1956-57

Area planted (manzanas)

Product	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56	1956-57
Sesame	25,345	32,848	38,155	30,003	24,223	23,220	11,507
Cotton	23,945	66,802	43,226	60,672	123,616	123,139	105,067
Rice	22,986	57,370	34,735	48,326	25,899	27,491	36,043
Corn	160,513	185,309	174,422	198,686	169,723	220,050	256,251
Beans	38,576	49,696	48,689	55,464	61,237	74,492	102,259
Sorghum	52,998	57,614	54,431	62,718	68,521	73,798	79,920
Sugar Cane	20,273	27,285	27,077	22,823	24,570	20,969	25,767
Potatoes	414	804	234	887	364	1,190	1,785
Yucca	2,965	2,389	2,477	1,911	2,509	2,229	2,860

Production (quintal) \*

Product	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56	1956-57
Sesame	184,769	378,725	336,838	250,954	189,132	179,269	92,256
Cotton 1/	111,904	407,520	267,871	421,192	1,031,344	686,348*	747,170*
Rice 2/	319,014	826,132	485,117	760,177	357,630	311,015	411,458
Corn	2,260,581	2,953,927	2,666,591	3,015,111	2,082,690	3,140,261	3,009,584
Beans	411,683	678,873	651,411	681,999	683,164	777,530	1,030,425
Sorghum	985,972	1,196,079	1,164,560	1,318,468	1,054,523	1,106,591	1,067,486
Sugar Cane 3/	497,037	940,506	900,389	753,581	806,140	742,896	950,536
Potatoes	35,996	51,740	9,290	52,270	25,262	57,340	83,189
Yucca	138,874	130,885	160,761	133,610	189,580	183,960	224,992

1 manzana equals 1.74 acres.

\* 1 quintal equals 101.4 pounds.

1/ Cotton production in 1955-56 and 1956-57 is after shreeding.

2/ Rice in 1955-56 and 1956-57 is after shreeding.

considerably since the war, although production of staple foods such as corn and beans has also increased, and the former has become an important export item.

The majority of exports go to the United States, but exports to neighboring Central American countries are increasing and may be expected to continue to do so because the demand is for the type of products indigenous to Nicaragua. Trade with Europe has been small since the war, but shows signs of expansion. Production of several crops is approaching the point where the traditional markets may no longer be able to absorb the output.

Exports are now handled by local agents, usually acting for foreign buyers, and by the Government's *Compania Mercantil de Ultramar*. These organizations are geared to supplying goods upon request from foreign agents, but they are not organized for seeking out new or expanded markets.

Another feature of current marketing practices is the farmer's complete lack of information on daily prices in foreign markets. A few of the larger farmers obtain weekly quotations from abroad, but the average farmer has no knowledge of price trends abroad. At the present time sales from the farm, at least for the smaller farmer, are generally governed by the need for cash rather than by current market conditions. Many buyers knowing this, set prices arbitrarily and often with little relation to the current price in the market. Crop prices fluctuate over a wide range during the year, partly for the reason, that the crop speculator is often a creditor of the farmer.

#### Crop Storage

Estimates of annual crop losses due to spoilage or insect damage are placed at 20 to 40 per cent of the total crop. Losses due to spoilage are highest from the first crop, which matures during the rainy season. Second crop losses are small because of dry weather during harvest. First crop corn, for example, is frequently left on the stalk in the field because the husk offers good protection from the rain. There is a grain storage plant in Managua, it was built several years ago in order to reduce this enormous loss, since the grain can be dried and kept free from insect infestation during storage. This plant is able to handle only a small percentage of the total crop of corn, rice and beans. There is a project for building four to five small plants in the major production centers. While these will be able to dry grain, they will be unable to store more than small amounts.

#### Distribution and Trading Centers

The principal distribution centers are the capital city of Managua and the cities of Leon, Granada, Masaya, Matagalpa, and Bluefields (the only eastern center). Oddly, the ports of Corinto, San Juan del Sur, and Puerto Cabezas are not distribution centers and can be referred to only as villages with extremely limited warehouses and storage facilities. Storage facilities are not available elsewhere.

Managua is by far the most important trading center of the country, each of the other cities have a central market place to which scores of merchants daily bring all types of produce and many other domestic and imported goods.

#### Government Policies

Government policies bearing on agricultural development are concentrated mainly in two agencies - the Nicaraguan Technical Service

(STAN), a joint project of the United States technical assistance and the Ministry of Agriculture and Livestock, and the National Development Institute. Further development of Nicaraguan agriculture is closely tied to the degree of initiative and risk which the government and farmer are prepared to take with regard to modernizing outmoded agricultural techniques and embarking on new development programs. The optimum development of Nicaraguan agriculture presupposes an extensive improvement of the farm-to market road network, rehabilitation of the national railway and port system, and rural electrification.

In August of 1956, the writer of this paper was employed by the information section of the Nicaraguan Technical Service in a part-time basis, with the main purpose of getting data on agricultural prices as a means of rendering a new service to farmers and consumers of agricultural products. The National Development Institute provided an Agricultural Economist (FAO) to help in this new development, it was considered necessary to get information from the farmers as is done in other parts of the world. It was found that this was not possible at the present time due to the actual way in which agriculture is organized. Data on prices of agricultural products are not fixed, that is, it depends on who has the product--the farmer, the wholesaler or the retailer, etc. The price in which the agency was interested was the one the farmer receives, since this would give an idea of the economy of their production. Even though it was decided to get the information from the market places of Managua and a survey was made in order to decide on the products to cover, what units of wholesale and retail should be used, probability of having reliable information, how often information should be gathered, what would be the better time of the day in order to have

the better information, who should be the reporters and the collectors of data, how big is the Universe in order to decide how large should be a sample for the project, what kind of questionnaire should be used, and other pertinent information was also considered.

It was decided after the first survey that only a part of the products should be covered and were divided in grains, fruits, vegetables, meat, poultry and cheese. The units of wholesale and retail were determined by the current usage and the kind of product, grain by the pound, vegetables by the dozen, etc. The reliability of the information could be determined only after several months following the start of the project. Data should be collected every day from the three market places about ten o'clock, when the market is in the peak of activity. The reporters were not selected specifically, but the enumerator would go around and fill the questionnaire, trying to get the information from different merchants every day. The universe which was variable every day could not be determined and it was decided then that the sample would consist of six questionnaires, taking two in each of the market places, and filled out by two different enumerators.

The project got underway with the data that it was possible to collect in the market places of Managua taking into account that they were not representative of the prices the farmer received, but that of the consumers. The publication of prices on agricultural products was started in December 1956 in newspapers and through mimeographed leaflets which have been distributed through the Extension Agencies of the country. The aim of this information is to give the farmers an idea of the prices they can expect for their products. Even though

the data published is from the Managua's market places, it is hoped that they reflect the situation in other parts of the country until more regional data can be acquired. This project is still under way as originally determined, new developments will come as time passes and experience is obtained. Right or wrong, this has been the starting point for the development of what is expected to be a sound project in agricultural marketing which will have to serve not only research but education as well.

#### General Conclusions

To develop the kind of marketing system needed to correct the conditions that now exist requires sound planning and actions of various fronts. The forces of public and private leadership must be combined in a well directed and oriented program designed to promote understanding, encourage cooperation, and lead to the necessary improvements.

A properly functioning marketing system should act like suction in drawing production off the farms into the various channels of use and consumption. By giving full expression to the demand that exists for the various products in the different outlets, such a marketing system would provide the incentive for maximizing local production and afford the facilities required for complete utilization and orderly distribution of the local output.

Instead, however, the many shortcomings that prevail have had the opposite effect. The limitations inherent in the present marketing system have not only narrowed the opportunities for farmers, but also deprived consumers of large quantities of food and other agricultural commodities which could be produced locally.

The lack of an orderly marketing system for farm products has greatly influenced the pattern of agriculture. It has prevented desirable diversification and actually resulted in a level of production lower than that warranted by the available resources. Lands which should be planted to food and other crops for local use are not utilized to the best advantage. Farmers have had to plant, not the type of crops which their soils are best suited, but a crop such as that could be marketed with some certainty of a return for the investment and labor expended.

The inadequacies of the present marketing system in the country are so great that for crops other than coffee, cotton and maybe sugar cane, there is little incentive for farmers to make full use of modern production methods and improved practices. There is even a fear of producing good crops because of the risk that these may not be absorbed by the limited market, thus forcing prices to low levels with losses to the producers. As a result, farmers are inclined to follow extensive production practices whereas virtually all farming should be on an intensive basis.

On the other hand, consumers in the towns and cities need the food and other products that could be produced, but they cannot get them in sufficient volume. When local products are available, they are usually of low quality and in poor condition. The vicious cycle shaped by the limitations of the antiquated marketing structure has operated for so long that it has come to be accepted as a normal condition to which the economy has adjusted itself.

Tendency to produce without consideration for either the requirements of the market or the desires of the consumers is noticeable. The

farmers care very little about varieties and production techniques which affect the marketability of their products. When a crop is harvested, the portion to be sold is marketed without regard to grading or packing. The production moves to market as harvested, the good mixed with the inferior. There is no grading for the local market and there are no commercial standards. Farm products reach the market in odd types of packages that are harmful to shipping and keeping quality. Much of the production moves either in bulk or in bags.

The way in which products are produced, handled, and marketed satisfy neither the low--nor the high--income consumers.

Orientation in marketing is a long process, it cannot be done in a short period. It will take a good many years for the complete development, an intelligent orientation through agricultural and governmental leaders, but it is of primary importance, to convince farmers of the good of working together for a mutual benefit.

## CHAPTER IV

THE IDEAL SITUATION AND NICARAGUAN'S MARKETING  
CONDITIONSTheoretical Considerations

Economics furnishes economists with an abstract concept of a perfect market which envisages an ideal situation in marketing.

G. S. Shepherd, in his book "Marketing Farm Products" states the following: "...the distinguishing feature of a perfect market is that all the buyers and sellers in it have a perfect knowledge of demand, supply and prices, and act rationally upon that knowledge. In the simplest cases, the buyers and sellers of a particular commodity are located at a single point in space and are doing business in a single instant of time. In such a market uniform price prevails.

From the above, it will be noted that there are three things involved in the above definition---a commodity, a point in space and an instant of time. Let us analyze them to consider their significance.

Commodity: a perfect market would result in a uniform price for a commodity plus or minus appropriate price differentiations for different classes and grades within that particular commodity.

Space: in a perfect market, the price is uniform over the area, plus or minus any transportation and handling charges between buyers and sellers in different parts of the territory.

Time: in a perfect market, the price is uniform over a period of time plus storage charges involved in carrying some of the commodity over from periods of relative abundance to periods of relative scarcity.

Thus the uniformity of price is maintained in a perfect market if

the differences can be accounted for by different grades, storage, transport or handling charges."<sup>9/</sup>

Alfred Marshall in his "Principles of Economics" rightly observes: "The more nearly perfect a market is, the stronger is the tendency for the same price to be paid for the same thing at the same time in all parts of the market, but of course, if the market is large, allowances must be made for the expense of delivering the goods to different purchasers, each of whom must be supposed to pay in addition to the market price a special charge on account of delivery."<sup>10/</sup>

A perfect market therefore, presents an ideal situation. The next step is to analyze the extent to which there is a departure of Nicaragua's marketing conditions from the ideal.

#### The Ideal Situation and Nicaragua's Marketing Conditions

The defects of the marketing system of Nicaragua have already been mentioned, the broad features of the situation will be pointed out here as responsible for creating the deviations from the ideal situation.

In a perfect market, buyers and sellers are supposed to have perfect knowledge of demand, supply and prices. In Nicaragua, with a few exceptions, all traders of agricultural commodities do not have perfect knowledge about demand, supply and prices. The story of sellers who are poor farmers is still worse. They have little knowledge regarding market situation. Transport facilities are very inadequate, with the result that movement of products from the places of production to assembling markets (if the point of concentration can be called such) and from there to the centers of consumption is much delayed. All modern communication facilities are available only along the main road

system (highways and railroad) which not necessarily covers the main production areas. The small markets and rural areas then, suffer immensely from these shortcomings.

Marketing prices and movement of products are not published currently, and are not easily available to all. There are no grades in the trade of commodities. Storage of grains and other products both in villages and markets is primitive and losses are almost unpredictable. In order to cover these uncertain losses the storers, when they are ordinarily engaged in this kind of business, add substantial margins in addition to the storage and handling costs.

Further, manipulations, squeezes and rumors are resorted to by the trade for the purpose of distorting the sound application of the principles of a perfect market. There are numerous other factors, institutional and political, which also impair the free working of a perfect market.

Thus, it is found that the marketing system of Nicaragua is far from being ideal. While we cannot conceive the establishment of a perfect market in Nicaragua; existing conditions can certainly be improved by implementing measures which can be classified into four categories:

1. Improvement of marketing by farmers
2. Improvement of existing private trade systems
3. Cooperative marketing
4. Governmental action for improvement

#### Improvement of Marketing by Farmers

In a scheme for the improvement of marketing, greatest emphasis should be placed on making changes in the existing system by voluntary means rather than by forcing changes from above. In an economy as exists

in Nicaragua at present, improvements effected by voluntary means will produce healthy effects and promote confidence in the community.

The problem is, by no means, a simple one. The quality of produce is often inferior, the farmers are weak in organization as well as in the achievement of basic improvement in their production. Their illiteracy, ignorance and poverty have been responsible for the present state of affairs. If the farmers of a country fail to realize why and how much they have to produce, they will continue suffering, however benevolent their government may be. The time has come for Nicaraguan farmers to improve their production and quality in order to have better returns for their marketable commodities.

**Quality production:** In every country, the farmers are mainly responsible for supplying standard quality products to the market. Negligence on their part may result in poor returns to themselves and cause annoyances and inconvenience to the consumers. It is most desirable that the farmers should improve the quality of their products.

**Storage:** Storage of cereals and other products is very inadequate. In order to avoid losses, it is necessary for the farmers themselves to have adequate storage facilities. The construction of storage facilities in rural areas is of primary importance.

**Financing:** The majority of farmers in Nicaragua sell their products immediately after harvest in order to meet their financial obligations. There are no agencies in the rural areas which can advance loans to farmers on the security of their products. With improved storage, this problem could perhaps be solved. However, the farmers should not depend upon outside agencies exclusively for loans. They should have their own cooperative organizations. With improvement in

their financial arrangements, farmers may possibly market their produce over a longer time and their return from the sales may increase, as well as lowering cost of production.

Finally, farmers need to improve their transportation facilities and also find ways of getting market information. The improvement of roads seems to be a government enterprise, but with the development of community life, which is a local matter, in the future the farmers will play an important part in the needed development. Marketing information will have to start coming from the government, but the farmers will have to learn how to use that information for more orderly marketing plans.

#### Improvement of Private Trade Systems

People and agencies engaged in handling agricultural products in Nicaragua, such as, local intermediaries, merchant truckers, traveling buyers, processing plants (when or where existing) should try to understand the principles involved in a sound marketing system for their good and that of the people they are supposed to be serving.

#### Cooperative Marketing

Agricultural cooperatives have played an important role in the development of rural life in the United States and in some of the Latin American countries. In general, agricultural leaders and farmers in Nicaragua, have had few opportunities, if any, to study the development and operation of marketing cooperatives in other countries.

There were 10,166 service cooperatives in the United States in 1951. They served a membership of more than 7.4 million and did a net volume of business of 9.4 billion dollars. Federal and State statutes encourage the formation of farmers' cooperatives. The statutes guard

against any risk that might become conspiracies or combinations in restraint of trade. The ownership and control of a cooperative is in the hands of those who use its services. Decisions are made and control exercised by the owners as patrons rather than as investors. The basic purpose is to hold costs to a minimum consistent with the quality of services demanded by the patron-owners. A cooperative is a tool fitted to the need for group action. Once the decision is made to go ahead with group effort, the problems to be met are the same as those of the business concerns that perform like functions, plus those of keeping the organization cooperative in character. If both sets of problems are met intelligently, a successful cooperative will be the result.

The Pan American Union in Washington, D.C. in its bulletin "Desarrollo del Movimiento cooperativo en America" (Development of the cooperative movement in America) published in 1953, gives important facts about the fast development in some Latin American countries, mainly in Argentina, Brasil, and Mexico. In Puerto Rico this development has also become strong and efficient for the marketing of agricultural products such as sugar cane, coffee, tobacco, milk, cotton and others, as well as for the purchasing of agricultural machinery.

In Nicaragua, the only known cooperative is the so-called national association of farmers and the national cooperative of coffee growers. These organizations have come to play an important part in the marketing of some selected products for the members. These organizations can be regarded as the starting point for the cooperative movement of the country, and the experiences and developments in other countries can serve Nicaraguan farmers in general as an over-all pattern for

improvement of their marketing practices as well as for the good of working together for their mutual benefit.

#### Governmental Action for Improvement

The structure of a sound marketing system which needs so many improvements at so many levels is a challenge to the government of Nicaragua. The structure of the economy of the country is set up in the traditional way. Different agencies have responsibilities for which needed improvement is required in the marketing system. Marketing improvement through governmental action will have to comprise several programs within different agencies. The interrelation between those programs and the hard work of those engaged in their development can bring success in achieving a better marketing system.

Governmental action is needed in the determination of Grades and Standards, as well as in uniform units and weights which now bring so much confusion in trading. Regulation of marketing practices, improvement of storage facilities, improvement of roads and means of transportation are other fields where government action is needed.

Marketing information and education has already been started, but much more attention to it is still needed. In the next chapter, education through extension will be discussed.

Finally, as the country develops as a whole in each one of the vital parts, government action should continue with the help of the much needed research. Soon there will have to be consideration on the establishment of chain stores and super markets, backed with government provisions, as well as health programs as related to marketing and provisions for price support programs and the like will also be needed.

## CHAPTER V

## IMPROVING MARKETING THROUGH EXTENSION EDUCATION

Extension's Job in Marketing

Principles and methods of extension education apply to any country, community, locality, or village. Conditions differ widely in the various countries of the world. Social institutions and habits have tremendous influence on extension work. Channels of communication must be understood. Values are a strong motivating force. The demonstration by local people with available materials in a living situation is the basic method. The extension worker must be respected by and have respect for local rural people. <sup>11/</sup>

Extension's objective in marketing is to raise the level of efficiency with which farm products are distributed from farm to consumer as a parallel to its objective of raising the level of efficiency with which farm products are produced.

Development of an adequate research and education program for agriculture must go beyond promoting efficient and balanced production. It must find ways to improve marketing of agricultural products, if it is to serve the interests of farmers and all the people.

A wide range of opportunities for improving the efficiency of a marketing system falls in the field of applied research and technical assistance and training. An expanded marketing program should logically provide an on-the-spot problem-solving service. But, as in production, the marketing program must continually be supported by basic research.

Extension's responsibility for marketing education begins with the care and handling of agricultural commodities from the time they are produced and continues until they are used by consumers. It is necessary to visualize production and marketing of any farm product as a twofold problem involving a chain of many links. These links reach from the beginning of the production process to the time the consumer actually utilizes the product. It is not possible to obtain full benefit of the strength in any of these links if there are weaknesses in any one of the others. For example, the efficient production of high-quality farm products will not result in maximum returns and utility if economical transportation is not available or quality is destroyed through improper handling in marketing channels before reaching consumers.

Educational work in marketing has many associations. There is a tendency to be familiar with the requirements of producers. It should be taken into account that production cannot be dissociated from marketing. It is not production in itself, but production as it relates to the marketing process. The product must be followed through to the consumer. This involves not only those practices which increase production, but those which affect the ultimate quality as the product is utilized by the consumer.

Besides the educational and demonstrational work, extension should carry on with producers toward the end of increasing efficiency in marketing of agricultural products, there is a need to work with many others--with handlers, processors and packers, wholesalers, retailers, and consumers.

Extension's area of work is strictly in the field of voluntary education, it is not designed as an enforcement agency. It can do much

for people, but its greatest results will come from helping people to help themselves. Adherence to this concept in marketing extension is important.

#### Extension Agents as Leaders in Marketing Improvement

The extension agent is the logical person to assist marketing groups in organizing and carrying on their services. He is an educator who is expected to understand the pros and cons of a situation, and he is respected and trusted in the community. Also important is the fact that he is an unbiased source of information on all phases of marketing and production.

In describing the extension agent in this manner, authoritarianism is also implied. <sup>12/</sup> Authoritarianism is a social process wherein the making of decisions for a social unit is placed in the hands of one man who is presumed to know better than others what the group should believe and do.

Authoritarian leaders are not desirable in a democratic community, since democracy is a social process in which the group as a whole is self-governing (not subject to any outside authority) and in which all members of the group are equally represented in the making of collaborative decisions. The most effective way to direct the behavior of human beings is simply to help them direct themselves, which implies democratic leadership.

Two extremes in decision making have been suggested, but in practice the two philosophies may shade by degrees into one another and rarely does either exist in pure form.

Having in mind these approaches of leadership, the task of the extension agents will be one of endeavoring, first, to understand more

fully just what are the needs of people they are going to lead; and then to find out the best way to enable the people to derive full satisfaction from meeting these needs through doing and doing well the program of work developed with them.

The leadership approach in a marketing program is not only that of directing the people toward a particular end that is felt they need, but that of making them realize their needs and bring them into the real problem.

Once they are motivated and ready to participate in solving their problems, many community leaders will arise. Here are some policies that should be used in this situation:

1. Sell the leader on the job to be done. Convince him that his job as a leader will be honorable and dignified and that he will gain the respect of his neighbors by making a contribution to the program. Show him that he will benefit from the experience.
2. Help the leader to realize that the program is a community or national program and not an extension agent program.
3. Give the leader a definite job to do. A leader without a job will soon cease to be a leader.
4. Help the leader by providing training and encouragement.
5. Insist on leaders being responsible for community meetings and presiding at least at the beginning of the program.
6. Give recognition to leaders that do a good job. This can be done at meetings, through newspaper articles or radio. Most people like to see their names in print; therefore, newspaper articles are effective in giving recognition to leaders.

### Extension's Teaching Methods

Like all adult education, extension teaching differs from classroom instruction. It grows directly out of the needs and interests of the people. It follows no rigid pattern or curriculum. Participation in its programs is wholly voluntary. It holds its constituents only because of the value of what they receive. Yet almost any extension group will vary in age, educational experience, interests, intensity of needs, and level of living. There may also be difference in values and cultural backgrounds.

Obviously the productivity of extension education is greatly influenced by the effectiveness of the teaching methods used and the skill with which the agent can fit these methods and the content material to the diverse interests and abilities of each group.

Extension's teaching methods can be grouped in three broad categories. These include not only methods in the usual educational sense of that word, but also the means by which the methods are employed. Thus, a lecture can be given to a meeting in a local hall or it can be a radio presentation.

The first group of teaching methods employs objective illustrations, such as charts and posters, exhibits, slide films, motion pictures, pageants and plays, and most important, method and result demonstrations.

The second group of methods is oral, but more of an individual contact and includes office calls, farm and home visits, meetings, radio talks, phonograph records, and even telephone calls.

The third category includes such written and printed materials as bulletins and other publications, circular letters, correspondence,

and news articles.

These different means and methods are used interchangeably to accomplish the same purpose, i.e., to bring about some change in farming or in home or community living. No one methods meets all needs. <sup>14/</sup>

It has been said that educational work in marketing has many associations. The three broad categories of teaching methods, their variations and combinations, can be used in planning marketing programs to educate the producers, the handlers, the wholesalers, the retailers and the consumers, toward the ends of increasing efficiency in the marketing of agricultural products.

#### What Is An Extension Program?

The word "program" has nine distinct meanings in the dictionary. When used by an organization it means a prospectus, or a statement issued to promote understanding and interest in an enterprise. When preceded by the word "extension" the word takes on all the implications of its usage in the service of various states. An extension program, like that of any public organization, should give not only what is needed, but why. It should be an elaboration of the organization's public policy in such a way that anyone can find out just how the policy affects him. In this sense it is not a list of activities or calendar work. For our purposes, an extension program is a statement of the situation, objectives, problems, and solutions. It is relatively permanent but requires constant revision. It forms the basis for extension plans. <sup>15/</sup>

#### Why Have A Program?

Every successful public movement must have a statement of its purposes that is clear to the citizens. The soundness, timeliness, vitality, and economic or social importance of the program is what

eventually determines the amount and continuity of public support. The published statement of the purposes is a public record of the program of the organization. Because it takes much time and effort to build such a program there is sometimes doubt as to just why we need to do so.

Ten reasons why a program is needed are:

1. To ensure careful consideration of what is to be done and why.
2. To have available in written form a statement for general public use.
3. To furnish a guide or straight-edge against which to judge all new proposals.
4. To establish objectives toward which progress can be measured and evaluated.
5. To have a means of choosing: (a) The important from the incidental problems; (b) The permanent from the temporary changes.
6. To prevent mistaking the means for the end, and to develop both felt and unfelt needs.
7. To give continuity during changes in personnel.
8. To aid in the development of leadership.
9. To avoid waste of time and money and promote general efficiency.
10. To help justify appropriations by public bodies. <sup>16/</sup>

#### Principles of Program Building

In considering the following list of principles it is important to bear in mind that we are not dealing with procedures themselves, but the elements essential to sound procedure.

Sound extension program building:

1. Is based on analysis of the facts in the situation.

2. Selects problems based on needs.
3. Determines objectives and solutions which offer satisfaction.
4. Has permanence with flexibility.
5. Has balance with emphasis.
6. Has a definite plan of work.
7. Is a continuous process.
8. Is a teaching process.
9. Is a coordinating process.
10. Provides for evaluation of results. <sup>17/</sup>

#### The Need for Marketing Education in Nicaraguan Agriculture

In the foregoing chapters of this thesis, the picture of the situation in the marketing of agricultural products has been stated, as well as the analysis and recommendations which seem to be appropriate in seeking general solutions of the problem in this section of the economy of the country. In this chapter we are dealing with the improvement of marketing through extension education, for which some concepts and philosophies are already defined. To establish a complete program for the over-all situation is a difficult task which needs the cooperation of many individuals, as well as specific surveys and actions of several governmental institutions.

#### Building an Extension Program Based on Marketing Objectives

As a program has to be built based on the analysis of the facts of the situation, a program for marketing improvement in the particular situation of Nicaragua has to take into account all the facts concerning the actual marketing picture such as producers, handlers and consumers in a broad sense. These facts must be viewed in terms of established long-time objectives and rural policy. The outcome of previous plans

should be reviewed and the results summarized and appraised. Factual material may be grouped around some unit such as family, community, or major type of farming. Factual material is to be obtained from practice surveys, scientific sampling procedures, the census, economic and social trend studies, planning-board reports, and other similar sources.

The assembling of these data in a form which could be permanent and usable, yet easily subject to revision, is a challenge. The analysis of the material in a form which will help leaders to do their part in making judgments will be an art in itself.

Sufficient data dealing specifically with the marketing of agricultural products are not available in the country. The first step in the development of the situation will be a complete review of what is available, followed by careful planning for surveys directed toward obtaining the real facts upon which the extension program can be based. In implementing the first step, it has to be realized that the country needs more personnel in this area of work.

Careful thinking by the extension agents, specialists and farm people will be required for the revision and analysis of all the material concerned with the marketing of agricultural products if a sound program is to be built.

Sound program building is based on attacking problems arising from needs. Not all the problems existing in the marketing of agricultural products in Nicaragua can be attacked at once. Choice of problems must be from among those brought out by the analysis of the facts; some of which are the result of felt needs while other are from unfelt needs. It is necessary to select those most urgent and of

concern to the greatest number.

The need for improvement in a marketing system as it is set up in the country traditionally and shaped in a vicious circle by the antiquated methods, is indeed a challenge to extension programming. Needs are perhaps unfelt, though the way the system works has come to be accepted as a normal condition to which the economy has had to adjust itself.

In general, one of the most important educational developments in relation to marketing should be the recognition that knowledge from many sources and training in many fields have to be combined to provide the basis for sound educational programs. There must be understanding of the commodity itself, how it is produced, its food value, how it should be handled, and how it will be used. The economic facts that affect production, the way in which products are distributed and how they are offered for sale must be part of a marketing program. What the ultimate consumer wants and will pay for, how the product may be stored at home, what new or varied uses may be made of products in supply are also part of a sound marketing program.

Effective education in the field of marketing is actually a cooperative venture. In addition to marketing specialists, other specialists in agriculture, in home economics, and in education can all make valuable contributions. Those who know or have access to over-all facts of the situations, and those who know local conditions, preferences, and customs are needed. Those who are known by and have the confidence of farmers, the trade, and families who purchase must all contribute if a marketing program is to be effective. It is not a one-man or one-woman job. When effective, it is the work of many skilled

teachers who can work with producers, handlers, and consumers to the end that each of these persons has a general understanding of the inter-relationships in the marketing process and specific knowledge of how his own decision or action will contribute to better marketing.

Improvements in marketing come through the interpretation and application of the research. Education must follow research promptly and must be continuing.

## CHAPTER VI

SOME SPECIFIC PHASES ON MARKETING IMPROVE-  
MENT THROUGH EXTENSION

In Chapter III it was stated that government policies bearing on agricultural development are concentrated mainly in two agencies--The Nicaraguan Agricultural Technical Service and the National Development Institute. The Extension Service of the country is under one of these institutions, namely the Agricultural Technical Service, locally known as STAN.

The STAN is primarily a research agency. Its purpose is to study the fundamental problems related to crops, soils and animal production in order to develop information that the farmers must have to improve their productive practices. STAN is also concerned with training in agricultural research and with certain extension services, including educational services.

The institution is divided in several departments grouped in four principal divisions: research, services, vocational education (recently changed) and extension.

The Extension Service Department, which is our primary concern here is divided in: a. Administrative office, b. Agricultural supervision, c. Home improvement supervision, d. Extension agencies, and e. Information.

The central office of extension is located near the capital, Managua. Twelve extension agencies are distributed throughout the main agricultural regions of the country. The agents are graduates from the National School of Agriculture. Any new program is carried out through

the agencies either by sending written instructions to the agents or calling them to the central office to attend what could be called a short course, which would enable them to help the farmers in their areas to put into practice new developments in their farming activities.

It should be mentioned here that the agents have little or any training in extension work. Before they are appointed to any agency, they have to spend a reasonable period of time at the central office.

In getting the extension agents acquainted with an educational program in order to improve the marketing system, it is believed that visits of the marketing specialist to the agencies for several days will be more successful than written instructions or any short course.

To start with, circular letters could be sent to the agents prior to the visit to be made. In this letter the over-all picture of the project should be included as an introduction, as well as the information the agent should provide to the marketing specialist for a better planning of the visit.

When making the visit, the agent and the specialist could first get together in the office to make an on the spot plan for the things to be accomplished during the visit. The actual activity will start with visits to the farmers of the area and the market places, if any. By being in the field, the agent, as well as the specialist, will be able to exchange points of view and to discuss the things that can be accomplished. When the visit is going to be ended they can summarize the results and outline the program that could fit the present needs of the area. This, in turn, will have to be supplemented with additional information from the central office. The agents will be able to ask for materials needed and will be in a position to report the responses

of their communities. Favorable or unfavorable, these responses will enable the central office to make further suitable developments of the project.

The information on prices of agricultural commodities, as mentioned in Chapter III, to farmers and public in general, has been what could be regarded as the starting point in the development of a sound marketing system of the country. As this project develops, more and more programs can be developed through the extension office. For example, a consumer education division should be created and one of its first programs could be developed in the market places by giving instructions to vendors in how to improve the services offered to the consumers. With the cooperation of other institutions, the Health Department, and organized groups of salesmen could be given a short and intensive course. Through these courses they could learn about classification of food products, hygienic and attractive reorganization of counters, salesmanship, personal hygiene and other things necessary for improving the conditions of their counters and their business. This educational program would help the vendors to increase their clientele, the consumers will be more able to stretch their food "cordoba" and the community in general could enjoy a better standard of living (more healthful and better economically). The success of a program like this will bring not only the achievements of the objectives involved, but will have a broad implication for adult education in general. The city consumer will be more able to balance his diet, small farmers who bring food products daily to the markets will have to adjust their procedures to new developments in the market place and so this program could educate directly or indirectly the salesmen, the consumers,

and the small farmers as well as the big ones. Thus, to some extent, everybody will be affected.

This kind of program would be started in the market places of the capital where more facilities are available. The experiences obtained in the capital will then serve as a background for programs in other cities and towns, as well as for new developments in that field of work, which perhaps will yield more reliable information for other similar projects.

In Chapter V, it was stated that principles and methods of extension education apply to any country, community, locality, or village. This has been concluded from the experiences of leaders in agricultural and home economics extension education all over the world as expressed at meetings of leaders familiar with extension in various regions of the world. Extension work is essentially educational and is dependent upon voluntary cooperation of rural people for its success, and must aim at education and self-help rather than free services and bounty from governments.

It should be mentioned here that the extension service in Nicaragua, which is relatively recent, is an institution purely supported by the central government. Cooperation of different levels of governments, as it is observed in the United States, has come to be through the interest of the government at different levels to educate people since early in American history. The system is unique and largely the result of the working together of two great forces. First, American agriculture—characterized by cheap land, scarce labor, new products, and the use of credit—second, American education. Americans early

recognized the responsibility of the government to provide practical education as distinguished from the classical type. To mention here this great development does not particularly mean that in Nicaragua it should be the same, but it is in the criterion of the writer that the central government of the country is heavily loaded in supporting too many institutions and the experiences of other countries should serve to lessen that load through some cooperative arrangement. It is believed by the writer that the extension service program should be supported by other levels of government, since if a program is locally supported, it becomes a program belonging to the people rather than one coming from the government.

The extension service has not as yet had a specific project for marketing education other than the information on prices previously mentioned. It is believed that as the information on prices has set up a starting point along the line, the officers in charge will soon realize the need for more action in this particular field. Other projects currently underway, giving some results, should serve as experiences for developing similar programs in marketing. The experiences in marketing education in other countries, particularly those with situations similar to those of this country, should also contribute in the development of programs.

In Chapter IV, it was realized that, since the marketing system of the country is far from being ideal and that the establishment of a perfect situation is unconceivable, it was suggested the improvement of existing conditions by implementing measures which were classified into four categories, namely: 1. Improvement of marketing by farmers;

2. Improvement of existing private trade systems; 3. Cooperative marketing; 4. Governmental action for improvement. Extension can certainly play its part through its educational program as a catalyst for interrelationship among the many fronts where action is needed. Marketing projects are not so easy to organize, but extension can assist in developing sound projects over a period of time.

## CHAPTER VII

THE CONCEPT OF MARKETING IMPROVEMENT IN THE  
DEVELOPMENT OF AGRICULTURETheoretical Concepts

The most commonly attempted measure of economic growth is that of per capita increase in the production, or output, of goods and services.

When viewed from the perspective of development policy, it is evident that this conception of economic growth is that of measuring the outcome or effects of development (or growth) upon the commodity flow. For purposes of formulating development policy it is essential to direct attention to points in the economy which are strategic to the increase in output, including especially the increase in capacity to produce goods and services.

Attention will be focused here to the development of agriculture, which Professor Kenneth H. Parsons in his *Agricultural Economics Seminar Notes* states that it is permissible and essential, though it is generally accepted that a rise in the productivity of agriculture (especially agricultural labor) is a necessary prerequisite to, or ingredient of, general economic development. On the other hand, it is essential because the economic structure of the agricultural sector, especially in the early stages of economic development, is uniquely different in many critical respects from other sectors of the economy. Policies for development must take cognizance of these differences if they are to be effective.

The following statements about the importance of the agricultural sector within economic growth, are found to be helpful for the purpose of this chapter. They are included here as a guide for a clear thinking in an attempt of the writer to visualize his country's situation.

The relative importance of this agricultural sector declines as a part of the general processes of economic growth and development (except in those countries specializing in an export type agriculture). This noting of relative decline is essentially another way of recognizing that other sectors of the economy must grow more rapidly than the food producing sector if a people are to have the material basis for an improved level of living. The shift in relative importance of agriculture (and other primary industries) and the manufacturing (secondary) and the service (tertiary) industries is frequently noted among the conditions of economic progress.

This does not mean that the agricultural sector must shrink; on the contrary measuring the consequences of economic development through output per person, agriculture must grow; the capacity of the agricultural sector to produce must grow sufficiently fast to provide the basic food and fiber needed for an expanding population, in a developing economy (adjusted plus or minus for agricultural exports or imports).

The agricultural sector of the economy is related to the other sectors of the (total) economy through factor and product market - margins of substitutions and transference. These relationships change in the process of economic development.

(a) As agriculture moves from subsistence agriculture toward a commercialized (or market sensitive) agriculture, the factor markets become increasingly important.

(b) The character of the product markets likewise changes. In the consumer market, the ultimate market for farm products, mass consumer behavior toward farm products becomes differentiated according to the need or estimated worth of the product, and the incomes of consumers.

(i) Consequently, there develops a complex set of interrelationships in which purchases of specified products in consumer markets acquire differing price-quantity relationships, analyzable as elasticities of demand. There are also subtle interrelationships or cross elasticities of demand - as cheese may be substituted for meat, or potatoes for bread, etc.

(ii) Similarly the proportion of consumer income spent for food (and other consumer goods derived from agricultural products) varies with the income of consumers. As an economy grows richer (that is, has a higher per capital productive capacity) the proportion of consumer income spent for food declines. This leads to a changing coefficient of demand for food - a changing income elasticity for food.

The product markets, intermediate between farm and consumer, which operate within the limits of derived demand (derived from consumer spending) also change greatly over the range of economic growth or development. In general the change is something of the order of a transition from the circumstances in underdeveloped countries where the crop likely sold to a village creditor (who may also be the landlord, at some sort of conventional price, possibly much below true market value) over to a situation where the producer sells directly to a specialized dealer, or joins in a cooperative either as bargaining and sales agency, or as a processing concern.

It is important here only to note the general character of changes which occur in the market nexus for agriculture as an industry, and of a farm as a firm, over the spectrum of economic development. Studies of the nature of such changes could contribute substantially to the understanding of the dynamics of the economic development of agriculture.

Economic development, either as indicated by the capacity to produce goods and services, or measured as economic growth in terms of changes in per capita output of goods and services, cannot be considered purely in technical terms. The objective of economic development is not merely to produce more goods but to produce goods useful to people. In any estimate of the efficiency of an economic system, thought must take account of the fact that it is the uses of things, not the things which are of concern to economic analysis. In a developing economy the disequilibria resulting from the introduction of new technologies, new products and changes in estimates of uses introduce a very great element of indeterminacy and uncertainty into any estimates of demand. 18/

Up to this point we have quoted Professor Parsons in his remarks about the role and importance of the markets in agriculture if development is to be achieved. There is no doubt then, that any provision toward the improvement of the marketing system of a country is of great need. The question then, is what should or could be those provisions necessary to improve the markets. It has been suggested that studies

of the changes occurred in the market nexus for agriculture as an industry, and of a farm as a firm, could contribute substantially to the understanding of the dynamics of the economic development of agriculture. Well, we know that changes are taking place, everybody is aware of that, but it does not mean that we have made studies in order to decide that such changes have taken place (we are thinking here of the particular situation of an underdeveloped country, namely Nicaragua). How do we know that we are changing? - Things are not the way they used to be; we read in the newspapers that in other parts of the world things are done in a different way. Should we go to work and make our things as seems to be the better way in other environments? It sounds reasonable and easy but not necessarily true. Undoubtedly, the experience of some of the more developed economics could serve as laboratories in which we can see how different ideas now proposed as guides to economic development work out, when tried in different country situations. In the background of the thinking in this suggestion is the hypothesis that we need very much to find common ground among people from many nations in the understanding of the basic similarities or differences in the economic problems of agriculture.

To review here the causes of economic development in the United States very profoundly is not under the scope of this paper. Nevertheless, the main points will be mentioned as the American experience is accessible and can help as a comparison with what the writer of this paper thinks when trying to visualize his country's situation.

Discussions of economic development by economists place capital formation near the center of the problems of development. The history

of capital formation in agriculture in America has been influenced profoundly by the fact (a) that labor has been relatively scarce in relation to land, and (b) that the total economy has included a vigorous industrial sector. For purposes of the discussion it is useful principally to distinguish "social overhead capital" from other kinds, in the process of capital formation, i.e. increase in productive capacity - in the agricultural sector of an economy.<sup>19/</sup>

The major items in the development of social overhead capital in American agriculture are found in the history and actual programs of: education, roads, canals, railroads, mail and parcel post service to rural areas, rural telephone systems, rural electrification, irrigation and drainage. Each of the items mentioned actually offers a large field for professional inquiry and specialization. They suggest something of the nature of the problem of providing social overhead capital for an economically developed agriculture. The course to be followed in any particular country is necessarily a matter of circumstances of that situation.<sup>20/</sup>

#### Economic Development in Nicaragua<sup>21/</sup>

The question of development in Nicaragua has been one of the major issues of the government policy for the past few years. On January 31, 1951, the Government asked the International Bank for Reconstruction and Development, to send a general survey mission to the country to assist it in formulating an over-all development plan. In accordance with an agreed program, specialists in various fields went to Nicaragua during a year's period.

The general objectives of the program are to expand and diversify the basic economy in order to raise the general level of living and to

improve educational and health standards. The program aims (a) to increase real per capita income by 15% in the five year period to carry out the program (1952-57), allowing for the natural growth of population during the period, and (b) to increase the physical volume of agricultural and industrial production by 25%.

The specific objectives include:

- (a) completion of a major highway network linking Managua with Granada, Leon, Chinandega, Jinotega, San Juan del Sur, the Tuma Valey and with the east coast;
- (b) establishment of a complete network of farm-to market roads;
- (c) modernization of the existing railway;
- (d) rehabilitation of the major ocean ports and improvement of lake transportation;
- (e) establishment of pure water and sanitation facilities in the main towns and many of the smaller communities;
- (f) expansion of the present power capacity of Managua to triple its present size, and formation of a grid to connect Managua with other important cities;
- (g) increasing the number of coffee trees by 25% and expansion of cattle production to the status of a major industry;
- (h) establishment of several new industries, as well as a number of grain storage plants;
- (i) reduction of the rate in illiteracy and a rise in vocational and technical education and training;
- (j) creation of an adequate medium - and long-term credit system and technical assistance for industry and agriculture.

In order to carry out a program of these dimensions, the mission proposed certain structural changes in the administrative system of Nicaragua, including among them; the establishment of an 'Instituto de Fomento' (Development Institute); reorganization of the banking system, including the establishment of a central bank; improvement of staff and organization in several government departments; and reorganization of the railway, power, and postal, telegraph and telephone services as autonomous public utilities.

The program is not easy; and the goals are high. They require that Nicaragua do as much in five years as she has accomplished in several decades. The program requires the most vigorous and constructive leadership in its execution.

The aim of the fiscal reform being undertaken by the government is not solely to provide additional revenue for urgently needed public works and services. It is partially intended to channel additional funds into the Instituto de Fomento, which would in turn, provide private enterprise with financial and technical assistance. This would encourage the flow of capital into productive private investments, which are as urgently needed as government public works. It is partly intended, also, to make an immediate, though small, start in raising living standards by removing or reducing the present heavy taxation on standard articles of consumption, including foodstuffs.

The extremely weak state of the municipal finances of the country is a heritage from colonial days and a reflection of the strong centralization of the government. It is a particular unfortunate aspect of the fiscal system, since the provision of many of the basic services of the country such as water, sanitation, street paving and

lighting, local markets and, to some extent, general health and educational services are, and properly should be, a function of local government.

Even in a small state, the technical problems and difficulties of correlating fiscal and budgetary policy, foreign trade policy, and central and commercial banking policy with long-range agricultural and industrial programming are so complex that it is essential to have an adequate administrative body to perform this task. The size of the proposed development program is such that future coordination is fundamental to its success. The Government has established for this purpose the National Council of Economics, and provided it with a secretariat. The council is still new in its operations, but it is becoming increasingly effective, as it has become aware of the need for coordination.

The necessity for setting up investment priorities derives from the fact that only limited funds are available for development, while the needs are great. Fixing priorities is an essential part of the general problem of coordination.

Few countries, even those very underdeveloped, have so little published information as Nicaragua. There are no adequate recent histories, no reference libraries, not even a government manual or directory. Statistical bulletins of the government appear irregularly, and those that do appear frequently contain detailed tables of little or no value. The annual budget is the only published source of information on the administrative structure of the government. It is enormously detailed but gives little information about government operations.

Under these circumstances, there is considerable feeling in the country that the government is deliberately concealing information from the public and therefore must have a great deal to conceal. Without adequate information the public necessarily has little understanding of what the government is doing, what the economic problems of the country are, and what a development program means. The public, therefore, cannot understand the extraordinary complexity of carrying out such a program. The government has recently become aware of this problem and there is confidence that it will act increasingly to inform the country of its programs and its significance.

The press and radio should be used increasingly to diffuse information about the development programs. The press could play a much more effective role in stimulating progress in the country if it gave full space, regardless of party, to the economic reports of the government, to fuller economic information on internal and external markets, crops and prospects, and to much more of the technical and scientific data needed by agriculturists and industrialists than now appears. The Nicaraguan public is obviously extremely interested in the economic problems of the country, but is not always well informed except on immediate problems of interest to the individual. Both the government and the press can do much to correct this.

#### Final Remarks

So far, we have mentioned some aspects of the development of agriculture in America, as well as some of the theory behind economic growth. In the above paragraphs we have also described briefly what is the situation or stages of development in Nicaragua. The picture seems as though it is framed upon the experiences of the more developed economies.

A question still remains, have the country improved in the past five or six years, where a development program has been carried out? Certainly, it has. But is the improvement completely adjusted to the expectations that seemed to be implied in development policies? Obviously not, but the experience has set forth the basis for the future.

Let us make a final remark about the importance of marketing improvement within the over-all frame work of economic development. If development is to be achieved, the relationships of the agricultural sector of the economy with the other sectors of the (total) economy will change. As agriculture moves from subsistence agriculture toward a commercialized (or market sensitive) agriculture, the factor markets become increasingly important. In the specific case of the improvement of the markets in Nicaragua, there have not been provisions specifically toward that improvement, that is, there are no policies with such settled objectives. Even though some of the policies with other objectives provide for some of the activities involved in marketing improvement. Any development in the market system of the country will open up a new road, and coordination with the other sectors of the economy will be very important. This reminds me of the statements of W. Arthur Lewis in his book The Theory of Economic Growth: if there is going to be economic growth, then there will be specialization; if specialization, then exchange, if exchange, then trade and coordination.

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