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FINAL REPORT OF THE CIDA/CEPAL PROJECT ON COMPARATIVE  
ANALYSIS OF AGRICULTURAL POLICIES IN THE  
DEVELOPING COUNTRIES

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#### A. General considerations

The present report has been prepared in pursuance of Section C-1 (page 13) of the Review 1 of the Plan of Operations of the Agreement between CEPAL and the Government of Canada on 5 April 1977.

#### B. Description of activities

##### 1. Objectives of the study

In compliance with the terms of the Agreement, CEPAL and CIDA agreed to carry out studies on the agricultural policies of selected countries in Latin America, using Mexico as a basis for comparison. The study planned for Mexico was aimed at analyzing agricultural policies carried out during the past 40 years and their effects on agricultural production, agriculture's contribution to the gross domestic product, the impact of agricultural exports on the country's balance of payments, and the means by which agricultural policies may have affected agricultural employment opportunities and led to an improvement in rural living conditions.

##### 2. Principal hypotheses

A basic consideration in carrying out this study was the fact that since World War Two Mexican agriculture had achieved notable rates of growth; however, this expansion had diminished greatly by the mid-1960s, which could, on the one hand, lead to an increase in the inflationary pressures that began to appear at the end of the last decade as a result of agriculture's inability to satisfy domestic demand, and, on the other, bring about significant social disturbances as a result of the drop in rural employment rates. It was also foreseen that the reduced rate of

growth in agricultural production would be reflected in fewer exports and a concomitant reduction in the amount of foreign exchange generated by exportable agricultural production.

### 3. Research characteristics

The study was aimed at covering the period immediately following World War Two up through the present decade, that is, the period characterized by the greatest expansion in agriculture. Nevertheless, previous periods were also taken into consideration, particularly since the bases laid down in these periods were important for the subsequent development of Mexican agriculture. Special attention has been given to the 1934-1940 government, during which most structural changes were implemented, such as agrarian reform and nationalization of the oil industry; the latter was to assume special significance in Mexico's economic development.

An attempt has been made to limit the coverage of the study as far as possible in order to focus on policy lines with the greatest impact on export capacity, employment and technification of rural areas.

### 4. Integration of the team of experts

In order to undertake the activities programmed, a basic group of experts was formed, composed of two full-time employees provided by CEPAL and three experts contracted with CIDA funds. The experts were recruited in July, August and December of 1977, the team was completed by January 1978. CIDA funds also assisted in contracting consultants, and both CEPAL and CIDA contributed funds to recruit auxiliary and secretarial personnel.

### 5. Implementation

## 5. Implementation of the programme

### a) General aspects

In planning the study, it was decided that the activities to be undertaken would concentrate, on the one hand, on a study of the evolution of agricultural production, its effects on food and raw materials supply and its impact on foreign trade, and on the other hand, on an evaluation of the principal policies followed by the Mexican Government in promoting agricultural development.

The original approach was subsequently modified to include a new classification of the entrepreneurial structure in the agricultural sector. Thus, the greatest importance was assigned to establishing the various types of producers participating in Mexican agricultural activities. This decision was prompted by the fact that the census information available was too aggregate to be of great use in making a precise assessment of the effects of the agricultural policy.

### b) Stages covered by the team of experts

i) Preliminary tasks. The team of experts and the staff of the Joint Agricultural Section of CEPAL's regional office in Mexico undertook the research programme.

The first efforts were aimed at establishing a frame of reference by collecting all the statistical material available and compiling a bibliography of more than 2 000 titles on the subject, to be used as reference material for the study.

Preparation of the statistical material took place over an extended period of time, since it was necessary to analyze the existing information and formulate production and foreign trade series at 1970 prices, the year selected as the base year.

### /ii) Characteristics

ii) Characteristics and evaluation of agricultural production.

Research was carried out on agricultural production in order to provide a general scheme of the evolution of agriculture between 1947 and 1976, the role of the sector in the over-all evolution of the economy and the factors explaining the breakdown of the growth trend toward the mid-1960s. Special attention has been given to production for home consumption and for export, to consumed and exported goods, and to the evolution and structure of agricultural exports and their share in total exports. The main agricultural products were also studied, together with their influence on the production quantum.

iii) Monographs of principal crops. To obtain a clearer picture of how Mexican agriculture functions, a series of monographs was prepared on the principal crops, of which 17 were selected for research. Collaboration in this task was provided by the Agrarian Research Centre, a Mexican governmental agency that prepares studies on the country's agricultural and agrarian situation.

Certain difficulties were encountered in preparing the monographs that will be discussed in greater detail further on, in this report.

iv) Description of the agricultural policy. The team of experts was also assigned the task of performing research in order to delineate the main characteristics of the agricultural policy that had been carried out over a number of years, which ultimately served as a frame of reference for detailed analysis of each policy.

Research to support the aforementioned task was also carried out in the form of a study of integral rural development plans and programmes involving the implementation of "policy packages" and the functions of

governmental institutions operating in determined geographical areas. An attempt was made to analyze the effects of such plans and programmes on production and productivity and on the distribution of benefits among the various social sectors concerned.

v) Typology of agricultural producers. The study of Mexico's agricultural policy was originally intended to provide an over-all picture of the Mexican agrarian structure in order to evaluate not only the effects of the various policies on the sector as a whole but also on the various types of producers making up the extremely heterogeneous entrepreneurial structure of the Mexican agricultural sector. A detailed study of secondary source material —particularly the study made in the mid-1970s by the Agrarian Research Centre in conjunction with the Inter-American Committee for Agricultural Development (CIDA)— revealed that although that study was used in practically all research on agrarian structure, it had a number of shortcomings, both with respect to conceptual aspects and to the methods used in formulating the various categories of producers identified in the study. Therefore, it seemed advisable to re-examine the agrarian structure in the light of the information provided by the last agricultural census.

In addition to offering an alternative to the existing concepts of the types of producers constituting the rural social structure, the study under discussion sought to incorporate analysis of the information contained in the last agricultural census into the picture of the sector's structural heterogeneity that had been taking shape from the end of the last decade down to the present one. In this connexion, an attempt was made to distinguish the campesino agricultural sector from the capitalist agricultural

sector as much as possible by establishing quantitative estimates for each so as to assess the magnitude of both sectors within Mexican agricultural activities.

It would not have been possible to defray the costs of this research project had it not been for the generous collaboration of the Ministry of Agriculture and Hydraulic Resources, through the National Hydraulic Plan Commission, and the Ministry of Programming and Budget, through the Research Centre for Rural Development (CIDER).

The efforts described above established a very disaggregate typology of producers that identifies 11 different categories, eight of which refer to agricultural producers, and three to producers specializing in livestock-raising activities. Four categories of campesino producers have been identified among agricultural producers, that is, one category of the transitional type and three categories of capitalistic farmers, small, medium-size and large. These categories are separated by ejido sector (reformed agriculture) and private sector, and cover all of the 32 states, certain regional groupings and the nation as a whole. The typology indicates the number of units of each type for each of the above-mentioned divisions, in addition to the use of inputs, technological levels, land use patterns, production value, value of the means of production for each kind of product and so forth. These elements represent a wealth of material for study much superior to that provided by the census itself and by previous studies of the agrarian structure, above and beyond whatever use the project itself may make of this material.

c) Research performed by the consultants

Consultants were contracted to perform specific research on some of the most important policies carried out for the promotion and

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development of agriculture in order to produce the highest quality studies in the shortest possible time and at the least cost. The research was therefore assigned to the most distinguished specialists in the field, who, by virtue of their association with the Mexican public sector, ensured that the work would be representative of the activities carried out by the public sector in that field. The following studies were performed:

i) Hydroagricultural policy. The CEPAL personnel and the team of experts agreed from the outset that hydroagricultural policy was of the greatest importance in the study in explaining the changes that have taken place in Mexican agriculture in view of the significance of irrigation in a country with a combination of serious rainfall deficiencies and an orographic structure that makes agriculture a risky venture.

The study reviews the hydroagricultural policy followed in Mexico since 1926 with the establishment of the National Irrigation Commission, and discusses the changes taking place in public investment strategies in irrigation, the degree of efficiency that has been achieved with respect to water use, the effect produced by subsidies on the use of water and so forth. A substantial part of the research is devoted to an analysis of irrigation districts, which constitute the basis for application of the hydroagricultural policy, and to an examination of the productive potential of the resources in such districts, concluding with recommendations for reorienting hydroagricultural policy in irrigation districts and the small-scale irrigation units.

ii) Public expenditures for agriculture. Mexico is one of the few countries in which financing of agricultural activities has been borne almost entirely by the public sector. Research on the channeling of public expenditures to this sector is consequently of the utmost importance. The study still under way attempts to assess the share, structure and evolution of agricultural allocations within over-all public expenditures.

iii) The role of the State in price fixing of basic agricultural products. This topic constitutes another of the studies considered essential to a proper evaluation of agricultural policy, since particular attention has been given in Mexico to regulating the prices of basic commodities. The study therefore, attempts to point out the objectives that have been pursued by the government policy on prices and marketing, in addition to the impact of that policy. In this connexion, it mentions the priority assigned to these topics by the National Basic Commodities Company, the governmental agency that manages the marketing of agricultural products and the regulation of producer guarantee prices. This agency also studies price control and marketing mechanisms of products other than those it manages directly.

iv) Producers organizations. A proper approach to agricultural policy questions required information on the nature of producers organizations, which led to the planning of separate research projects on both entrepreneurs and campesinos. The first of these projects deals with the mechanisms established by agricultural entrepreneurs for protecting their interests, and in this connexion the study discusses the various entrepreneurial organizations associated with important crops

such as cotton and sugar cane, since these crops employ a large amount of salaried manpower. A study was also considered important of the mechanisms established by the farmers in the State of Sonora, typified by rather highly efficient commercial exploitation that produces for both the domestic market and export. Reference has been included in this part to the Employers Confederation of the Republic of Mexico, the organization incorporating the large-scale agricultural entrepreneurs. The research project also includes a study of the relations such entrepreneurs have maintained with the Government.

The second research project describes how the Mexican campesinos are organized and how the various organizations established to organize them have developed. In this respect, reference is made, *inter alia*, to the organization and strategies of the National Campesino Federation and the Independent Campesino Agency.

v) Agricultural credit policy. Rural credit occupies an important place in agricultural financing, since after the 1910 Revolution and the massive distribution of land that took place between 1934 and 1940, agriculture has depended primarily on official credit. Heated arguments have nevertheless taken place on the pros and cons of the agricultural credit policy, and research to provide criteria for evaluating the positive and negative contributions of the official credit policy was therefore assigned high priority. This study is still under way.

vi) Research and extension policy. Much comment has been made on the importance of the green revolution in Mexico, which consisted of the creation of drought-resistant and high-yield varieties of certain crops. The development of such varieties has been the result of significant efforts in pure and applied scientific research. Nevertheless, the field

of research and extension was dealt with in considerable detail, since it was necessary to determine the extent of coverage in this respect and to evaluate its influence on production phenomena. Research was consequently planned to include the origin, evolution, structure and organization of the public sector institutions responsible for research and extension, in addition to the coverage they have attained in such tasks and the results achieved. Comments will be made further on regarding the results achieved in this respect.

vii) Employment policy. Since less than half of the annual increase of the agricultural labour force finds remunerated occupation, the subject of employment policies is of great relevance. In relation to this subject an analysis has been made of agricultural employment since 1940 trying to discover the principal causes explaining its performance and trying to relate it to the main policies followed by the different administrations. This research has not yet been completed.

### C. Benefits obtained

The decline in the impetus of Mexican agricultural production for both domestic consumption and export has obviously been reflected in a decline in food supply and in the inflow of foreign exchange. Both of these elements must consequently be considered as having influenced the inflationary pressures felt in Mexico in recent years. The effects of imported inflation must also be added to this phenomena.

The CEPAL/CIDA study offers the advantage of attempting to determine the influence different agricultural policies may have had in agricultural production variables. From this standpoint, the study will undoubtedly contribute to a correct diagnosis of the situation and facilitate the formulation of appropriate policy measures to bring about changes in the organization of production.

Among other benefits, the study will produce a few documents on specific topics that will be able to be published as research contributions to the understanding of Mexican agriculture and its problems. The present document includes the outlines used in this research.

The benefits to be derived with respect to the typology of producers are of at least three types. The first of these is of a methodological nature, since the procedures used for reclassifying census material into more substantive terms for formulating and evaluating sectoral policy could, with slight modifications, be extended to include the Central American countries and others in the region in which the current capitalistic agriculture-campesino agriculture dichotomy is found. From this standpoint, CEPAL and CIDA's objective of using the study of Mexico as a basis for similar studies in other underdeveloped countries in the region would be fulfilled.

Secondly, a quantitative framework is now available for formulating and evaluating sectorial policy in which the specific nature of the productive units as far as their response to governmental measures is concerned has been taken into account, at least to the extent made possible by the generalized information provided by the census.

Thirdly, a number of criteria may be derived from the scope of the typology and even from its limitations for the preparation of future agricultural censuses so as to make them more effective in orienting sectoral policy. As a matter of fact, the research under discussion made possible the suggestion of a number of recommendations to census officials for the 1930 census.

The generous collaboration of the Ministry of Agriculture and Hydraulic Resources through the National Hydraulic Plan Commission in computer processing of the census data was a valuable contribution, since it provided a large amount of material for carrying out more sophisticated research in the future. From this standpoint the benefits to be derived from the project are undeniable.

D. Obstacles

The study was planned to take place over an 13-month period beginning in July 1977. However, various difficulties arose that made it necessary to extend that period of time, as detailed below:

1. Recruitment difficulties

Although CEPAL had tendered job offers much before the Agreement was signed with the Government of Canada, the contracting of personnel was not able to be carried out as originally planned. Mr. Sitjar of Uruguay was the first to be recruited, and he joined the team in July 1977. Mr. Schejtman of Bolivia was the second, joining the team in August of the same year. Mr. Mergruen, of Mexican nationality, was hired only in December 1977, so that the team of experts was finally constituted in January 1978.

Several problems also had to be overcome in contracting the consultants, which further affected the progress of the project.

2. Technical difficulties

Limitations of a technical nature were also experienced, since some of the experts did not fulfill the terms of their contracts or produce material of precisely the quality expected.

Although it was visualized from the outset that the task of processing the census data by computer was a very substantial one, inasmuch as it involved reprocessing more than 2.6 million census documents, it was estimated that the contribution of other public sector institutions in providing computer processing facilities would enable this task to be accomplished in a reasonable length of time of some 12 to 15 months. However, in initiating the task of reconstructing the census codes and

locating the material required for analysis, various difficulties were encountered, such as the dispersion of the original material as a consequence of the administrative reform taking place in the public sector; the disappearance of the key codes of some variables, which had to be reconstructed, and the lack of information regarding the manner in which magnetic tape records had been recorded and in which the information on magnetic tape had been evaluated. These difficulties alone caused a loss of three months merely in getting the information into suitable processing condition as required for constructing the typology desired. At a later date these difficulties were compounded by those deriving from the lack of continuously available computer time for the considerable amount of material involved in preparing the typology, all of which delayed the results required to begin the analysis until the middle of this year.

### 3. Financial difficulties

As the project developed, the lack of resources for certain essential side activities became apparent. The shortage of funds for support personnel was particularly acute, as it was for contracting the data processing services that would have greatly accelerated the processing of data for evaluating agricultural production.

An attempt was also made to limit project expenses as much as possible, since it was foreseen that the project would have to be extended beyond its original duration. Unfortunately, just when it was hoped to extend this period, the available funds were reduced as a result of problems involving monetary exchange rates. Consequently, the experts' contracts could not be extended and drafting of the final document will therefore be the exclusive responsibility of CEPAL.

E. Actions to be taken to implement the recommendations

Generally speaking, the documents referred to were all aimed at formulating what might be termed as a strategy based on campesino development, that is, a type of agricultural development favourable to this group. In this context, one condition for applying the general and specific recommendations deriving from the study would be constituted by the political will of Governments to orient agricultural development differently than has been the case, with few exceptions, up until the present time.

With the above exception, the kinds of measures that should be adopted to implement the recommendations deriving from the various documents involved in the study are in direct relation to the nature of the documents themselves, and, generally speaking, such measures may be divided into those related to documents of a general nature (particularly the document on agricultural policy analyzed as a whole) and those relating to documents on specific policies.

With regard to the document on typology, it will be necessary in both Mexico and Central America to publicize the methodological considerations that were instrumental in formulating the typology of producers and the results deriving therefrom, since it is felt that these considerations can be extremely useful in formulating both general agricultural development strategies and specific policy measures that may produce varying reactions and benefits among the different types of producers.

Both the general document on agricultural policy and those referring to specific policies have led to various recommendations whose implementation is contingent not only on extensive dissemination of such documents among officials at the different levels responsible for formulating and

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implementing such policies, but also on the holding of seminars on specific topics with the participation of these officials. This could be effected by publishing these documents and using them as basic texts for the courses on agricultural planning and policy-making that are being offered by various United Nations agencies under agreement with public sector institutions.

The foregoing is particularly applicable to studies regarding hydroagricultural, employment, pricing and marketing, and public investment and expenditures policies.

The need also exists to publish a substantial portion of the voluminous statistical material produced for study purposes, which could be used as such for objectives reaching far beyond those of the study on agricultural policy. The interest that partial dissemination of this material has aroused in academic and public sector circles suggests that a rational selection of this material should be published as basic statistical material for use by the above-mentioned sectors.

In summary, the recommendations are as follows:

1. Publication and dissemination of the material described in the document as studies for extensive distribution.

2. The holding of an interregional seminar on agrarian structure, campesino economy and agricultural development with the objective of including the methodology employed in the study of types of rural producers.

3. The holding of local and possibly interregional seminars on:

- i) Investment and public expenditures policy for rural development
- ii) Pricing and marketing policy
- iii) Hydroagricultural policy
- iv) Rural employment policy
- v) Participation of producers organizations in rural development

4. The inclusion of documents considered suitable for extensive distribution as basic texts in agricultural policy and planning training courses to be held in Latin America.

F. Contents of final document

The final report will consist of two self-sustained volumes. The first one dedicated to the agricultural policy and the second to the results of enormous efforts and costly reprocessing of the 1970 census data (2.6 million units) carried out from conceptual categories that break traditional tendency of the studies based on size and tenure criteria. The new methodology incorporates the debate on peasant versus capitalist economy of relevant importance in Mexico during recent years.

The presentation of a second volume is consequence of the interest shown by the institutions in charge of the design and evaluation of agricultural policy, as well as Investigators and academic institutions. Results obtained by the application of the new methodology in a resumed version will be incorporated as a chapter in the first volume, summarizing the results regarding the agricultural policy implications.

The following is a detailed content of the two volumes:

## MEXICAN AGRICULTURE AND AGRICULTURAL POLICY

### Introduction

The introduction will review the work preceding the study, summarize the scope of the research carried out and indicate its principal conclusions.

### Chapter I

#### PRINCIPAL FEATURES OF MEXICO'S ECONOMIC EVOLUTION

The first chapter will attempt to present a brief picture of the principal characteristics of Mexico's economic evolution since the end of World War Two, stressing the changes taking place in the principal variables of supply and demand.

The role of agriculture with respect to the economy as a whole and to other sectors of economic activity will also be discussed.

### Chapter II

#### THE EVOLUTION OF AGRICULTURE

This chapter will begin with an attempt to locate Mexican agriculture within the Latin American context and to indicate both its share in the generation of the gross product of the agricultural sector in the region and the development level attained by Mexican agriculture in comparison with that of the principal countries of Latin America.

Analysis of the evolution of Mexican agriculture will encompass three clearly defined periods. The first refers to the period between 1935 and 1946, in which the agricultural sector was structured. Here the study will describe and analyze the main structural changes that gave rise to the expansion stage of agriculture between 1947 and 1964. Lastly, the

stagnation stage between 1965 and 1976 will be discussed. The analysis of the evolution of agriculture in the last two stages will be based on statistical information on agriculture at constant 1970 prices as prepared by the CEPAL/FAO Joint Agricultural Section.

The study will take into account the six-year periods corresponding to the presidential terms of office in Mexico in consistency with the succeeding chapters dealing with agricultural policies, which are heavily influenced by the particular president in power.

The study will encompass the Governments from 1947 to 1952 and from 1971 to 1976, and will cover, inter alia, production for domestic consumption and export; exports and imports of agricultural products and their share in agricultural production and in total exports and imports; the structure and evolution of production for human consumption and for industry; and the extent of subsistence and commercial production.

In view of the importance of such crops as corn and cotton — the former a product for domestic consumption and the latter an export product — special attention will be given to these products and to the competition among basic grains, export products and industrial products in obtaining available resources.

Lastly, a comparative study will be made of the evolution of irrigated and non-irrigated agriculture.

### Chapter III

#### THE STRUCTURAL FRAMEWORK OF AGRICULTURAL POLICY

This chapter will consist of a synthesis of the second and third parts of the report on types of agricultural producers. The main characteristics of the different types of productive units referred to in that report will be

discussed, in addition to the factors determining to a great extent the structural differentiation indicated by the typological analysis.

#### Chapter IV

#### SIX-YEAR ADMINISTRATION STRATEGIES

This chapter will attempt to provide a general picture of the various strategies employed or the different emphases that have been proposed since 1958 with regard to agricultural activities. Essentially, an attempt will be made to constitute representative examples of the declarations of the various Governments on what were considered to be the most important problems in the agricultural sector in each Administration and to compare these considerations with both the structural problems delineated in the preceding chapter and with the specific policies discussed in the following chapters.

#### Chapter V

#### POLICIES FOR TRANSFORMING AGRICULTURAL PRODUCTION CONDITIONS

This chapter will analyze Government actions aimed at modifying the structural or institutional conditions governing the functioning of the sector and that are consequently directed toward long-term effects, thereby more accurately expressing the desire for change manifested by each president than the policies referred to in the following chapter.

In this chapter the agrarian policy that gave rise to new forms of land ownership will be discussed, in addition to the changes in the legal and institutional framework and the public investment that made it possible to establish a segment of modern agriculture that presently furnishes a large portion of the population's food and the raw materials required to satisfy industry and very diversified external demand.

The section devoted to the legal and institutional framework will constitute an interpretative analysis of the law-making process and the public institutions involved in the agricultural sector.

Evaluation of the public investment policy will be aimed at determining the impact of investment on sectoral production and productivity and the relative distribution of the benefits of such investment among the different types of producers.

### Chapter VI

#### INCENTIVE, REGULATION AND CONTROL POLICIES

In this chapter policies designed either to affect production quantitatively in the short term or land use patterns in each agricultural cycle will be analyzed, such as the ones concerning pricing and marketing, credit, and the administration and improvement of irrigation districts.

The study of pricing and marketing policy will emphasize Government action taken in managing guarantee prices as strategic elements in promoting production and increasing the income levels of campesinos through the National Basic Commodities Company. The role of other governmental organizations with similar objectives will also be examined.

With regard to credit policy, emphasis will be placed on the changes taking place in agricultural credit philosophy and the type of agriculture that has benefited from this policy.

In analyzing agriculture in Mexico, special attention will be given to irrigation districts, which, without any doubt, constitute Mexico's most important contribution to the development of agriculture.

Chapter VII

INTEGRATED PROJECTS

This chapter will attempt to review and evaluate the principal rural development projects involving various policies and institutions in determined areas, and will consider both the effects of such plans or programmes on production and productivity in the areas in question and the distribution of the results obtained among the various types of beneficiaries.

Chapter VIII

RESULTS OF AGRICULTURAL POLICY

This chapter will evaluate the results of the short and long-term activities described and analyzed in the three preceding chapters, at least from the standpoint of their effect on the level and composition of production; on the evolution of productivity per man and per hectare; on the evolution of rural employment; and, if only purely qualitatively, on the distribution of the benefits of agricultural development among the different types of producers discussed in Chapter III.

Chapter IX

AGRICULTURAL POLICY AND PRODUCERS ORGANIZATIONS

An attempt will be made here to analyze the influence producers organizations have had in formulating and implementing sectoral policy. For this purpose a distinction will be made between what might be called entrepreneurial organizations and campesino organizations. A description will be made of the diverse characteristics of these organizations and their relations with the Government apparatus. In the instance of entrepreneurial organizations, in addition to considering those of a strictly political and trade union

type, their action or influence through transnational agribusinesses will also be considered.

## Chapter X

### CONCLUSIONS AND PROJECTIONS

This chapter will draw the principal conclusions of the preceding study and will therefore be of an essentially interpretative nature.

In order to satisfy the original objective of the project, an attempt will also be made in this section to foresee what elements in the Mexican experience may be assimilable in formulating development strategies in Central America.

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## TYPES OF AGRICULTURAL PRODUCERS: AN ALTERNATIVE APPROACH TO MEXICO'S AGRARIAN STRUCTURE

### Introduction

In this section, besides the description of the contents of the volume, some considerations will be made about the possibility of employing the typology as an important instrument in the design and evaluation of policies in the agricultural sector.

### Section One

#### THEORETICAL ASPECTS

This section is devoted both to a critical evaluation of the existing studies of the agrarian structure and to a synthesis of the theoretical development of the concept of agrarian structure from the beginning of 1960s onwards.

### Chapter I

#### THE CONCEPT OF AGRARIAN STRUCTURE DURING THE 1960s

- Background: Agrarian reformism, the agrarian question in CEPAL's thought, the debate on feudalism, the development of the internal market, etc.
- Influence of the above-mentioned problems on the concepts used in the study of land tenure structure in Latin America (specifically the series of studies developed by the Interamerican Committee for Agricultural Development (ICAD), stressing particularly the contributions of the Ecuador study).
- Critical evaluation of the significance and limitations (both theoretical and methodological) of the study made by the Centro de

Investigaciones Agrarias en Mexico which constitutes, up to the present, a necessary reference by all those who are involved in problems of the agricultural structure in Mexico.

- The need to a new approach substantiated by the actual presence in a debate on the development of capitalism on Mexico's agriculture. This debate has contributed important conceptual advances but in its quantitative aspects it is still conditioned by the results of the above-mentioned study.

### Chapter II

#### TOWARDS A NEW CONCEPT OF THE AGRARIAN QUESTION IN MEXICO

Reference is made in this chapter to the need of a departure from the traditional "dualistic" and dichotomic visions of the traditional-modern type, and the implementation of an analysis that takes into account the specificity of the peasant economy and its evolution and transformation as part of the general process of development. In this chapter theoretical contributions made by Gutelman, Bartra, Harman, Diaz-Polanco, Gómez Olivier, Paré and many other Mexican theoreticians of the agrarian question will be taken into consideration.

### Chapter III

#### CAPITALIST AND PEASANT AGRICULTURE: CONCEPTS FOR THE CONSTRUCTION OF A NEW TYPOLOGY

In this chapter a comprehensive presentation of the theory of peasant economy is made. It incorporates the developments that Mexican and international literature have been publishing on this subject on the last decade. Reference is made to those concepts on which there is consensus and to those in which a controversy is still present. Our own concept of what has to be considered

a peasant economy is defined and substantiated. Finally, the contrast between peasants and capitalist agriculture is presented according to the terms in which the basic entrepreneurial decisions are taken in each case.

## Section Two

### TYPES OF AGRICULTURAL ENTERPRISES IN MEXICO

#### Chapter IV

##### SIGNIFICANCE AND LIMITATIONS OF THE PROPOSED TYPOLOGY

A comparison between the conceptual or theoretical capacities defined in the preceding chapters and the statistical approach that has to be used in the quantitative analysis, is presented. Special reference is made to the limitations imposed by the lack of precision, in the census definition and in the actual estimates of some important variables.

#### Chapter V

##### OPERATIONAL DEFINITION OF THE DIFFERENT TYPES OF PRODUCERS

The types of producers used in the construction of the typology are defined giving the reasons for the use of certain variables as an approximation to the concepts implied in the definition of each of the categories.

#### Chapter VI

##### THE AGRARIAN STRUCTURE: AN AGGREGATE VIEW

In this section the quantitative results are presented showing the relative importance of each of the categories within the typology, in relation to the number of productive units in each category and to the value of output generated. A distinction is made between the private and the reformed

(ejidal) sector indicating regional differences and mentioning the situation in some particular states where extreme situations are present, in order to highlight the range of heterogeneity between states.

#### Chapter VII

##### ACCESS AND DISPONIBILITY OF RESOURCES BY TYPE OF PRODUCER

The amount of productive resources controlled by each of the different types of producers will be analysed in this chapter, particularly in relation to arable and irrigated land, plows, tractors, working animals and cattle. A general estimate of the extent of land renting is also made, and the approximate amount of value of the means of production for each of the different types of producers is presented.

#### Chapter VIII

##### A BROAD DESCRIPTION OF TECHNOLOGICAL LEVELS

In very broad terms a description is made in this section of the use of different kinds of inputs, i.e., chemical fertilizers, selected seeds, tractors, animal traction, etc., for each type of producer. Since the amount used by each producer of the above-mentioned inputs was not reliable, the data are presented only in terms of the use of these inputs in each productive unit. Since the data of output per unit of input were also non-reliable, very rough indexes are presented to compare the performance of the different types of units.

#### Chapter IX

##### PATTERNS OF CULTIVATION

In this chapter the types of crops developed by each type of producer are described. Only for the main crops (maize, beans, wheat, cane) the area

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cultivated is also considered, highlighting the relative importance of each type in the production of the crops considered.

### Chapter X

#### VALUE OF OUTPUT PER TYPE OF PRODUCER

An analysis of the average and mode levels of production by type of producer is presented. Within the peasant sector some considerations are made between the relation of these values and the subsistence requirements of each family.

### Section three

#### ORIGIN AND IMPLICATIONS OF THE STRUCTURAL HETEROGENEITY OF THE AGRICULTURAL SECTOR

This is a section of an interpretative and some speculative nature, but an attempt is made to analyze the dynamics of the process of the decomposition-concentration that seems to characterize the Mexican agrarian structure. Its purpose is to place the very static vision given by the preceding chapters within a more dynamic or historical perspective. To that end, use would be made of elements and material from secondary sources which, although may not allow a quantitative approximation to the dynamics, will at least allow to infer the main direction of the trends of change.

### Chapter XI

#### PRINCIPAL FACTORS DETERMINING THE PROCESS OF POLARIZATION OF THE PRODUCTIVE STRUCTURE

This chapter will attempt to analyse the extent to which the observed polarization in the agrarian structure is explained by the development of a type of land reform which was linked more than anything to the process of

/political

political consolidation of what is called "the state of the revolution", and/or to the dynamics of the development of capitalism on the agricultural sector, and/or to the high rate of population growth that characterized the demographic development of Mexico.

### Chapter XII

#### ELEMENTS OF ACCELERATION AND OF CONTENTION OF THE DECOMPOSITION-CONCENTRATION PROCESS

In this chapter an analysis is made of the different forces (legislation, irrigation, credit, etc.) which have contributed to the increase or to the morigeration of the differentiation process described in the preceding chapter.

### Chapter XIII

#### OPTIONS FOR A PEASANT BASE STRATEGY FOR A POLARIZED STRUCTURE

A brief critical analysis is made of some of the rural development strategies that have been supposedly designed to benefit peasant agriculture. This chapter will also include a description of the foregoing debate between the ones that think that peasantry is here to stay, and those who think that it is disappearing, highlighting those elements that should be taken into consideration in the design of an alternative rural development strategy.

/COMPLEMENTARY

## COMPLEMENTARY REPORTS OF AMPLE CIRCULATION

As it was formerly stated, these are the reports that in spite of being synthesized in the chapters of the volume about policy, it was considered convenient that they had an ample circulation because of the fact that they contained information non-published and an analysis that surely will be of interest to those who would like to go in deeply in the respective subjects. This refers to the studies on investment and public expenditures, price and marketing policy, hydraulic policy, and the programmes of comprehensive development and labour policy.<sup>1/</sup> It also contains the studies on entrepreneurial and farmers organizations, and a volume with the methodology and the quantitative results of the typology for the 32 States of the Union in which there is a distinction between the private and the ejidal sectors.<sup>2/</sup> In a very schematic way, the content of such documents is the following:

### A. Public investment in agriculture in Mexico (1959-1976)

#### Introduction

- I. Characteristics, availability, limitations of public investment
- II. Importance of agricultural public investment in the overall public investment of Mexico
- III. Structure and evolution of public investment in agriculture: economic classification, sectorial-institutional and functional
- IV. Regional distribution of public investment
- V. Conclusions and recommendations

<sup>1/</sup> The report on agricultural labour policy has not been yet completed by the consultant but the preliminary inform available indicates that the results are sound enough to have the document published.

<sup>2/</sup> In principle this volume will be published jointly by ECLA and the Comisión del Plan Nacional Hidráulico of the Ministry of Agriculture and Hydraulic Resources.

**B. The role of the State in the fixation of prices for basic agricultural products**

**Introduction**

- I. Objectives of the State policy of prices and marketing
- II. A quantitative version of the participation of the State in the market of basic products
- III. Mechanisms for control of prices and marketing
- IV. The impact of the price policy
- V. La CONASUPO in the national market
- VI. Conclusions

**C. The Irrigation policy in Mexico**

**Introduction**

- I. Irrigated agriculture in the context of total national agriculture
- II. Irrigation policy in the period 1926-1958
- III. The instruments of Irrigation policy in the period 1959-1976: main characteristics, possibilities and limitations
- IV. Irrigation districts as a tool for the application of the irrigation policy
- V. The area of hydraulic works for rural development (small irrigation)
- VI. The irrigation area not controlled by the Government
- VII. Some elements that could be used as a guide for the reorientation of Irrigation policy

**D. Producers organizations**

**First part. The entrepreneurial organizations**

**Introduction**

- I. Organizational structure
  - I.1 Organization by product
  - I.2 The National Union of Cotton Producers (UPARM)

- 1.3 The credit unions
- 1.4 The agricultural organizations of Sonora
- 1.5 The Entrepreneurs Mexican Confederation (COPARMEX)

## II. Agricultural entrepreneurs and the State, 1958-1976

- II.1 Period 1958-1970
- II.2 Period 1970-1976

### Second part. The peasants organizations

#### Introduction

- I. Historic-structural background
  - II. Peasants organizations in Mexico (CNC)
    - II.1 The Peasants National Confederation (CNC)
    - II.2 The General Union of Peasants and Workers of Mexico (UGOCM)
    - II.3 The Independent Peasants Central (CCI)
    - II.4 The Independent Central of Peasants and Agricultural Workers (CIOAC)
  - III. Case study: The Independent Peasants Union (UCI)
  - IV. Conclusions
- E. Types of agricultural producers: Methodology and quantitative results by State 1/

#### Introduction

### First part. Methodology

1. Preliminary considerations
2. Definition of variables
3. Reduction of units to general equivalent
4. Operational definitions of categories for stratification

1/ Provisional outline. The publication of this document will be made jointly by the government institutions that collaborated in the preparation of the quantitative aspects of the typology.

Second part. Quantitative results (by type of product and by State)

1. Type of producers by State and region (resumé)
2. Area (in dry-farming equivalent)
3. Disponibility and use of machinery
4. Main inputs used
5. Main annual crops
6. Main plantations and fruit crops
7. Total value of production (minimum wages)
8. Number of cows for reproduction
9. Number of tractors
10. Irrigated area as percentage of total area
11. Corn area
12. Bean area
13. Agricultural production as percentage of total production
14. Total value of breeding heads
15. Number of workers employed in the harvest
16. Value of the means of production
17. Number of annual crops practised during the year
18. Heads of cattle excluding heifer

F. Programme and schemes of comprehensive development

Introduction

I. General background on the evolution of agricultural policy

II. The Jalisco Plan

II.1 Background

II.2 Definition and the main objectives

II.3 Strategy

II.4 Technological adoption

**III. The Puebla Plan: A case of technological innovation**

**III.1 Background**

**III.2 Definition and objectives**

**III.3 Strategy**

**III.4 Execution**

**III.5 Results: Family income, social relations, agrarian structure and organization**

**IV. The programme of public investment for rural development (PIDER)**

**IV.1 Background**

**IV.2 Definition and objectives**

**IV.3 Strategy**

**IV.4 Results: Reformulation of traditional administrative schemes**

**/DOCUMENTS**

DOCUMENTS FOR RESTRICTED CIRCULATION OR FOR LIBRARY  
CONSULTATION ONLY

These are documents of statistical data gathered from material not original but that are being integrated and organized from secondary sources, distributed in multiple government publications and in universities libraries. The most important elements of this material are integrated in the corresponding chapters of the document on policy or in some of the documents of ample distribution referred to in previous chapters.

Among the material included are the studies on credit; research and extension; transnational agroindustry; crops monographs (coffee, sugar, tobacco, hemp, tomato, oil crops, cotton), as well as disaggregated statistical material of some of the studies included in the groups of documents formerly described. The outlines for these studies are the following:

A. Crops monographs<sup>1/</sup>

Introduction

- I. Supply analysis (production conditions)
- II. Marketing
- III. Demand analysis
  - III.1 Internal demand
  - III.2 External demand
- IV. Summary and conclusions

<sup>1/</sup> The same outline is used for all the crops indicated.

B. Agricultural policy in Mexico (provisional outline)

- I. Background: Credit policy in the period 1934-1953
- II. The instruments of agricultural credit policy
- III. Development and accomplishments of the credit policy in the period 1953-1976
  - III.1 The official credit, magnitude and destiny
  - III.2 The impact of the credit policy (productions and producers income)
- IV. The projection of the Mexican experience

C. The research and extension policy in Mexico

- I. Background: Main orientation of the efforts of research and extension in the period 1934-1953
- II. The instruments of the extension policy (1958-1976)
- III. The policy of research and extension (1958-1976)
- IV. The impact of the policy of research and extension (production and distribution of the benefits)
- V. Main considerations for a reorientation in research and extension policy

D. Transnational enterprises in the Mexican agroindustry

Introduction

- I. Characterization of the main agroindustrial systems
- II. Identification and characterization of the main transnational enterprises operating of agricultural products
- III. Degree of concentration of the systems and participation of transnational enterprises
- IV. Participation of transnational enterprises in the agroindustry
- V. Normative actions developed by the State for the control of transnational enterprises
- VI. Specific aspects in the behaviour of transnational enterprises in respect to agricultural production
- VII. Summary and conclusions

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