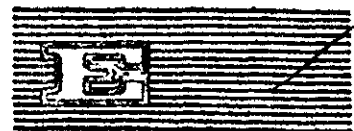


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INDUSTRIAL PRODUCTIVITY, LABOUR COSTS AND COSTS OF PRODUCTION IN
THE CENTRAL AMERICAN ISTHMUS

(Abridged Text)

Report prepared for the Economic Cooperation Committee of the Central American Isthmus by Mr. Maurice Milhaud, Expert of the United Nations Bureau of Technical Assistance Operations.

This Report, prepared for the use of Governments and of officials and experts of the United Nations, as well as of its specialized agencies, has not been cleared with the United Nations Bureau of Technical Assistance Operations, which does not therefore necessarily share the views expressed.

TABLE OF CONTENTS

	<u>Pages</u>
Note	vii
Introduction	1

Part OneTHE INDUSTRIAL CHARACTERISTICS OF THE CENTRAL AMERICAN
ISTHMUS AND METHODS USED FOR THE STUDY

Chapter I

The industrialization of the countries of the Isthmus and the
common market

1. The movement towards industrialization	4
2. Levels of industrialization	5
a) Small industries	5
b) Industries producing consumer goods	6
c) The modern sector and the integration industries	7
3. Statistical indicators	8
a) In the countries of Central America	8
b) In Panama	11
4. The degree of organization and mecanization of the enterprises	14
a) The policy of enterprise	14
b) The degree of mecanization	15
c) The degree of organization	16
5. The purchasing power of the population of the countries of the Isthmus	17
a) Per capita gross national product	17
b) Percentage of the economically active population represented by manpower employed in the manufacturing industries	17
6. National and international cooperation	20

Chapter II

Objectives, scope and method of the study

1. The object of the study	22
2. Survey on industrial productivity and production costs	24
a) Method used for the survey	24
b) Organization of the survey	25
c) Selection of the industrial indicator product	25
d) Selection of enterprises to be investigated	27
e) The questionnaire	27
f) The survey	28
3. Value of the information obtained	29
a) Degree of representativity	30
b) The ECLA's survey	30
c) Answers concerning labour costs	32
d) Answers concerning productivity and the costs of factors of production	32
e) Reliability of the answers to the questionnaire	34
f) Final version of the study	34
4. Additional studies	35
5. Drafting of the study	35

Part Two

CONCLUSIONS AND RECOMMENDATIONS

Chapter III

Conclusions

a) Summary of the principal conclusions drawn from the study	36
b) The problem raised and the nature of the study	37
c) Differences in working hours	38
d) Differences between remunerations and labour costs	39
e) The social charges	43
f) The level of living of the workers	48
g) The purchasing power	50
h) The relation between high wages and productivity	51

Page

i) The position occupied within regional competition by the countries of the Isthmus for their production costs and their production times	55
j) Possible modifications of the relative importance of wages, systems of retribution and social charges	57
k) Costs of production and specialization	58
l) The real problem facing manufacturers	58
m) The productivity centres and industrial analyses	59
n) Possibilities for industry to absorb higher wages	60
o) Productivity and employment	61
p) The socio-economic regional development programmes insuring the participation of the workers in the benefits resulting of the productivity growth	62
q) Complementarity of economic and social development	65

Chapter IV

RECOMMENDATIONS

Appendixes

I. Text of the request from the Governments of Central America to the Economic Commission for Latin America	74
II. List of products selected as industrial indicators for regional comparison	75

NOTE

The English edition of this study, is an abridged version of the original Spanish report: Naciones Unidas - Consejo Economico y Social (E/CN.12/CCE/335/Rev.1/TAO/LAT/51). This abridged version which, for the first time, presents a regional comparison of labour and production costs in Central America in relation to the levels of productivity, confines itself to reproducing the chapters of the study which may give the reader a general view of the problems presented, of the research carried out and of the results obtained as well as the conclusions and recommendations of the expert, especially those concerning:

1) The method used to measure and compare on a regional scale the difference in labour costs, production costs and levels of productivity. This method has permitted a detailed analysis of the replies of the industrial enterprises. This analysis, which is reproduced only in the original Spanish text of the full report, is not included in this abridged version. It includes 265 pages, with 83 tables, 22 diagrams and 12 graphics, giving regional comparisons, by country and by product.

2) The repercussions of the difference thus observed on the economies of each of the six developing countries of the Isthmus, and on their capacity for regional competition.

3) The mechanisms through which the relations between the factors determining the cost of labour, the cost of production and the levels of productivity, are established in such economies.

4) The important observations made on the basis of the accounts of the enterprises, according to which it is established that there is a real compensation in each Central American country between wages and the corresponding social charges, in such a way that labour costs are very similar in these countries. On the other hand, it is also established that when wages are higher, productivity is generally also higher.

/5) The need

5) The need to reach an optimum productivity at the national level as well as at the Common Market level through the adoption of a regional socio-economic development programme coordinating the national policies on the basis of common objectives as regards wages, social security, "social work" and social services, workers'housing, vocational training and the judicious employment of labour.

6) In a more general way, the value of the Central American initiative in creating a Common Market as an example of effective regional action inspired by the principles which guide the social and economic policy of the United Nations.

INTRODUCTION

The movement towards the economic integration of the Central American countries was begun towards 1950 when the United Nations decided to concentrate their efforts on economic help to the developing countries in order to achieve an increase in the standards of living in the world. Starting in 1947, United Nations technical assistance programmes had been put into effect, first in the social and then in the economic field; this led in 1949 to the adoption of the so-called "Expanded Programme of Technical Assistance" to developing countries, operated in collaboration with the Specialized Agencies of that Organization.

Costa Rica and Salvador, Guatemala, Honduras and Nicaragua were among those in greatest need of passing from a rural economy to an economy possessing the advantages of industrialization, in order to obtain through it and through the consequent growth in their respective national incomes, an increase in the standard of living of their populations. The governments of these countries understood that the policy of industrialization envisaged by the international organization demanded deep political and economic changes, since each country by itself had neither the economic area nor the population required for advantageous effective industrialization. Since a minimum economic area is required for an incipient modern industry to be profitable, it was considered that the time had come to choose between an inevitable progressive suffocation, as a result of isolation in a world where other countries would see their incomes increased, thanks to industrialization - or economic progress based on regional collaboration. The answer to this dilemma gave rise to the birth of a Common Market which has rapidly been endowed with the organs necessary for it to fulfil its role.

The new Common Market has, in fact, made possible the merging of isolated and essentially rural national economies, which scarcely permitted small populations in reduced areas to survive - 2,5 million inhabitants in

/Salvador

Salvador; 4 million in Guatemala. It has also resulted in the creation for the common benefit, of a regional economy containing nearly 11.5 million inhabitants in a territory of 441,270 square kilometres (12.5 million inhabitants and 516,920 square kilometres, including Panama). The Economic Commission for Latin America - created in 1948 by the United Nations as the mainspring for dynamic regional policy, as were the Economic Commission for Europe and that for the Far East - has been the Organization through which were channelled new aspirations and courses of action.

In 1951, resolution No. 9 (IV) approved in the Fourth Session of ECLA, pointed out the interests of the Central American countries in the integration of their economies and the expansion of their markets; in 1952, in compliance with the resolution, the Central American Committee on Economic Cooperation (CCE) was created, constituted by the Ministers of Economy of the Central American countries and called upon to direct the above policy. In this, they had the cooperation of ECLA. The intense activity which developed between 1958 and 1961 has permitted ten treaties to be signed in connexion with the problems of Central American integration. The first, dated the 10th of June 1958 and in effect since the 2nd of June 1959, is the Agreement on the Regimen of Central American Integration Industries, signed by the Governments of Costa Rica, Salvador, Guatemala, Honduras and Nicaragua.^{1/} The most recent is the "General Treaty for Central American Economic Integration" dated 13th December, 1960 and in effect since the 3rd of June, 1961.^{2/}

Already in 1952, the first resolution [I (CCE)]^{3/} of the Central American Committee on Economic Cooperation, which had just been created,

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- 1/ See text in Appendix B to the Report of the Central American Committee on Economic Cooperation (E/CN.12/492) published by the United Nations, Sales Number 58.II.G.3.
 - 2/ See text in the appendices to the Report of the Central American Committee on Economic Cooperation (E/CN.12/552), United Nations publication. Sales Number 60.II.G.7.
 - 3/ See "General Principles of Central American Economic Integration" 1 (AC.17), Resolution approved on August 27th, 1952 (E/CN.12/AC.17/8).

/specified

specified the objectives of the Common Market. The same Committee in its 94th Resolution (CCE)^{4/} suggested to the Secretariat of ECLA and to the other United Nations Organizations that in future they give special attention to the realization of comparative studies on the basic costs in the industrial sector, with a view to a reasonable uniformity of conditions, assigning a high priority to the incidence of wage policy and social legislation, from the point of view of improving the standard of living of the population.

In fulfilment of this resolution, the United Nations Bureau of Technical Assistance Operations in New York appointed Mr. Maurice Milhaud - Doctor of Economics and Licentiate of Social Sciences, former Director of the European Office of the Technical Assistance Administration of the United Nations - as an expert to study the ways of equalizing the effects of social charges on the cost of labour and on the price of industrial products. The study was to be based on an analysis of "Relationship between productivity, labour costs, social charges and benefits, in selected industries (producing for the regional or national market) in the countries of Central America", and it was to include any recommendations which the author saw fit to make.

On the other hand, the International Labour Office entrusted to another expert - Mr. Marcel Fabri - a statistical survey to determine the cost of labour in industry in the Central American countries.

The experts began their respective missions in 1962. Because of the interest of knowing the situation of Panama, a country of the Isthmus which could either join the Common Market or cooperate with it, it was decided to include it in the study at the suggestion of ECLA.

The present work is the result of the collaboration between the two experts, ECLA, the National Productivity Centres and the Institute of Industrial Development in the Central American countries and Panama; also the Regional Productivity Mission for Central America of the International Labour Office, industrial employers associations and many other bodies (planning offices, Social Security Institutes, etc.). The author wishes to express here his thanks for the cooperation and assistance received, which enabled him to gather the documentation necessary for the completion of this work.

^{4/} See: "Social Aspects of Economic Development". 94 (CCE) Resolution approved on September 1st, 1959 (E/CN.12/533).

Part one

THE INDUSTRIAL CHARACTERISTICS OF THE CENTRAL AMERICAN
ISTHMUS AND METHODS USED FOR THE STUDY

This first part of the study presents a panoramic view of the industrial characteristics of the region in order to facilitate the interpretation of the results obtained and the understanding of the recommendations made in Part II. Among points studied are the beginning of industrialization, the levels reached, the degree of organization and the mechanization of enterprises in a social medium with very low standards of living. Reference is also made to international aid, to government measures tending to promote industrialization and to the efforts made to obtain a rapid economic and social development of the region, by means of the Central American Common Market.

Chapter I

THE INDUSTRIALIZATION OF THE COUNTRIES OF THE ISTHMUS AND THE COMMON
MARKET

1. The movement towards industrialization

The industrialization of the Central American countries arises from the trend towards urbanization and the crystallization of the idea of creating a Common Market. It is as recent as the transformation of rural economies based on the "latifundio" and on the direct production of means of subsistence for the majority of the rural population in exchange economies. Till recently the manufacture and transformation of products were only made by artisans. In recent years however, there appeared as forerunners of industrializing foreign enterprises established for the intensive cultivation of agricultural products such as coffee, banana, cotton, etc., which introduced industrial methods of cultivation and production, required to obtain consistently profitable exports.

The urbanization of the capitals of each of the countries and of some other areas brought about the appearance of small industries when a

/sufficiently

sufficiently wide market allowed its survival. But it was based entirely on inappropriate methods of handicraft production of which it was, in a way, a continuation. Often this small industry made the same products as the artisan, using slightly improved methods and some machinery. Wage-earning labour constituted by unskilled workers is a characteristic of the transition from the family enterprise to the small industrial enterprise.

This progression, necessarily slow, would have continued to characterize the industrialisation of the Central American countries had not the situation been modified by one decisive circumstance: The unanimous desire expressed by the five countries to create a Common Market and the adoption of the measures necessary to convert the project into reality. From that moment the psychological and economic drive which influences the Central American countries is due to the change of scale in trading as represented by the transition from the weak model of national economies to the stronger one of a regional economy which makes industrial promotion possible and serves as a foundation for it. Thus, since 1960, the conditions necessary for the creation of a modern industry were beginning to appear in Central America and the great adventure began even before the agreement among the countries had been signed and ratified.

2. Levels of industrialization

Here will be examined the level reached by the manufacturing industries in the Central American countries in 1962, considering successively, the importance of the various types of production within the industrial sector, and the efforts made to create a modern sector and integration industries making capital goods.

a) Small industries

In the area surrounding the capitals, a great number of small industrial enterprises can be found, which are difficult to distinguish from handicraft workshops. Although the incipient small industry, as has been mentioned, is
/essentially

essentially an extension of the handicraft industry using, to obtain the same product, improved mechanical methods and sometimes resorting to mass production, yet its activities also extend to the production of paper bags and cardboard boxes, paper products, soap, various canned foods, printing, etc. Small industry has buildings better adapted to its needs. There is generally one person in charge of the office, administration and accounting, or it has a specialized accountant who devotes a few hours a week to keeping the books up to date. Since there is no costs accounting, sales prices are those imposed by local competition. The product manufactured are limited to those needed to satisfy current demand. The management of the enterprise does not try to perfect its routine methods since it obtains orders without soliciting them and the deliveries usually satisfy the customers' demands.

b) Industries producing consumer goods

The atmosphere created by the needs of a slow industrialization on a limited scale has suddenly been transformed into one of optimism, drive and the desire to conquer the new market whose potential is dimly perceived. Attention is turned to the methods of modern industry: improved machinery, automatic if possible, mass production and organization of assembly lines.

In the five countries, strategic plans are being established to conquer the regional market. The initiative comes from the managers of existing enterprises, who try to expand their business, or from people of means, who decide to establish modern factories for a new product and think of placing them under the management of some member of the family. Initiative also comes from powerful foreign groups trying to gain favourable positions in international competition; they make direct investments in Central America countries or associate themselves with established national manufacturers to whom they cede patents and whom they finance, making them partners in the newly modernized enterprise. This dynamic movement is also stimulated by protective tariff measures which favour the creation of new industries; through modifications in fiscal legislation which promote imports of modern equipment and raw materials; through tax reductions or exemptions granted to

/the new

the new industries over long periods. In this way between 1956 and 1962, more than 39 enterprises covering nearly the whole of the manufacturing sector were established in Central America.^{5/}

On the other hand, in Panama the industrial sector was one of the most rapidly developed between 1945 and 1956, especially in construction, garments, food stuffs and drinks. From 1957 to 1962 a process of rapid industrial expansion took place at the end of which large modern enterprises were established in the fields of petroleum products, tinned foods and juices, flour, plastic products, etc.

After 1962 the movement towards industrialization was intensified in all the countries.

c) The modern sector and the integration industries

The step from small to large industries has been taken by enterprises which, in general, make products for direct consumption. Others also make basic intermediate products: cement, petroleum refining products, tyres and inner tubes for cars, steel reinforcing bars. The need to start enterprises which produce this type of basic product and the difficulties which have to be overcome to do this are well known by the creators of the Common Market and for that reason special regimens have been provided in favour of integration industries - the term by which those called upon to play an important role in the process of progressive regional industrialization, are known. In 1962, ECLA made the following studies within the framework of a joint regional programme:

Tires and inner tubes: Guatemala

Raw material for detergents and shoe polish: Honduras

Cooper tubing: Salvador

Caustic soda and chlorinated insecticides: Nicaragua

Besides studies have been made on flat glasses, electric bulbs, glass containers, sulphuric acid, rayon and acetate for rayon, ceramics, basic metal industries, rolling of flat steel, welded tubing, petroleum products, fertilizers, pulp and paper, cardboard boxes, etc.

^{5/} One sugar refinery, factories making powdered milk, soluble coffee, edible vegetable oils and margarine, cigarettes, beer and soft drinks, chocolates, frozen meats for exports. Factories engaged in cotton spinning and weaving and others making stockings, socks, underwear, soap, plastic articles, aluminium doors and windows, matches and cigarettes, metal reinforcing bars, etc.

3. Statistical indicators

The industrialization of the countries in the Isthmus is thus a process that began a few years ago which has recently been intensified. The artisan workshops, small industries and modern industries coexist, the last of these being usually established in sectors reserved for it alone. The description of the evolution which has been given is historical and qualitative. It will be very useful for an understanding of the problems examined in this study, to specify in figures the situation as it was in 1962 in each of the countries and in the region as a whole. The Joint Planning Mission for Central America has published the results of its Central American industrial survey made in 1962.^{6/} The data on Panama were taken from the Report of the Controller General of the Republic of Panama for October 1st, 1963.^{7/}

The 1962 figures bring out the following three points: a) the relative importance of handicrafts and industry by number of people employed; b) the importance of the industrial enterprises by class of workers and c) the gross value and value added of the production obtained by industry and handicrafts respectively.

a) In the countries of Central America

The relative importance of handicrafts and industry by number of personnel employed, is measured, taking as a criterion of differentiation for handicrafts, manufacturing establishments employing under five persons and for industry those employing five persons or more (see table 1).

From table 1, it appears that the personnel occupied in manufacturing industry only represents, on the average, in Central America some 42% of the total employed in both handicrafts and industry, and that Costa Rica has the highest percentage of industrial workers.

^{6/} Joint Planning Mission for Central America. Central American Industrial Survey, 1962. Published by the Investment Promotion Department, Central American Bank for Economic Integration.

^{7/} Report of the Controller General of the Republic of Panama. Census and Statistical Office, 1963. pp.33-A to 36-A.

The statistics also show that the number of manufacturing workers as such did not exceed 150,000 persons in the five countries in 1962, with a majority in Guatemala and Salvador.

In table 2, manufacturing establishments employing five to nineteen persons have been grouped in column (2) and those which employ 20 persons and over in columns (4-6). It can be seen from the table that enterprises with 20 or more workers constitute 29% of all the manufacturing establishments in the region and that the highest percentage is found in Costa Rica and Nicaragua. 16% of the enterprises employ 100 or more persons.

Table 1

CENTRAL AMERICA: NUMBER OF PERSONS EMPLOYED IN HANDICRAFT
 ESTABLISHMENTS AND IN MANUFACTURING FACTORIES, 1962

Country	Total (2 + 3) (1)	Factories (2)	Handicraft (3)	Percentage (2)/(1)
Central America	<u>361,049</u>	<u>149,946</u>	<u>211,103</u>	<u>42</u>
Costa Rica	40,949	22,129	18,820	54
Salvador	90,387	38,411	51,976	42
Guatemala	129,592	53,217	76,375	41
Honduras	49,304	15,813	33,491	32
Nicaragua	50,817	20,376	30,441	40

Source : Calculated with figures extracted from the publication of the Joint Planning Mission for Central America. Encuesta Industrial Centro-americana, 1962.

Table 2

CENTRAL AMERICA: NUMBER AND DISTRIBUTION BY GROUPS OF WORKERS
 EMPLOYED IN MANUFACTURING FACTORIES, 1962
 (5 persons or more)

Country	Grand Total (1)	5-19 (2)	20 and more				Percentage (3)/(1)
			Total (3)	20-49 (4)	50-99 (5)	100 and more (6)	
Central America	<u>5,593</u>	<u>3,965</u>	<u>1,628</u>	<u>1,027</u>	<u>346</u>	<u>255</u>	<u>29</u>
Costa Rica	780	485	295	190	71	34	38
Salvador	1,658	1,293	365	232	88	45	22
Guatemala	2,078	1,482	596	376	126	94	29
Honduras	510	336	174	108	37	29	34
Nicaragua	567	369	198	121	24	53	35

Source : Calculated with figures extracted from the publication of the Joint Planning Mission for Central America. Encuesta Industrial Centro-americana, 1962.

/The gross

The gross value of production and the value added are two other indicators of the industrial importance of the countries under consideration. These values can be compared in table 3 using the figures referring to factory production and to handicraft production respectively.

The gross value of production obtained in industrial establishments of the five countries taken together is a little more than double that obtained from handicrafts; the value added is more than double.

From table 3 it can be seen that the country with the highest percentage of gross value, in factory production compared with that of handicrafts, is Nicaragua and the country with the lowest percentage is Honduras. With regard to value added, Costa Rica has the highest percentage and Honduras the lowest.

b) In Panama

The situation in Panama is known from the first industrial census taken in 1962. The relative importance of handicrafts and of industry can be deduced from the following figures: of a total of 2037 establishments, 1549 employed under five persons (76%) and only 488 employed five or more (24%); of the latter, 340 employed between 5 and 19 persons (16.7%) and 148 employed 20 or more (7.3%). In spite of the predominance of handicraft establishments, 95% of production came from factories.

Table 4 includes, by branches of industry, the number of establishments, the personnel employed and the value of gross production in 1962. In that year, Guatemala and Salvador had the greatest number of industrial enterprises and workers in the Isthmus; Panama figures with the smallest number of industrial enterprises of handicraft and manufacturing workers and the lowest value of gross production.

Table 3

CENTRAL AMERICA: GROSS VALUE AND VALUE ADDED OF
 INDUSTRIAL PRODUCTION, 1962

(Central American Pesos)

Country	Total (1+2)	Factories (1)	Handicraft (2)	Percentages	
				Factories	Handicraft
<u>Gross value</u>					
Central America	989,083.4	669,749.3	319,334.1	68	32
Costa Rica	149,893.4	109,180.0	40,713.4	73	27
Salvador	226,240.3	151,020.2	75,220.1	67	33
Guatemala	365,179.2	251,609.1	113,570.1	69	31
Honduras	133,063.8	68,358.7	64,705.1	51	49
Nicaragua	114,706.7	89,581.3	25,125.4	78	22
<u>Value added</u>					
Central America	434,467.3	308,089.9	126,378.4	71	29
Costa Rica	68,195.3	54,506.2	13,689.1	80	20
Salvador	108,358.7	75,692.5	32,666.2	70	30
Guatemala	146,744.2	106,959.2	39,785.0	73	27
Honduras	59,964.2	32,014.6	27,949.6	53	47
Nicaragua	51,204.9	38,916.4	12,288.5	76	24

Source: Joint Planning Mission for Central America. Encuesta Industrial Centroamericana, 1962. The percentages have been calculated for this report.

Table 4

PANAMA: PERSONNEL EMPLOYED AND VALUE OF GROSS PRODUCTION IN
 HANDICRAFT ESTABLISHMENTS AND IN MANUFACTURING FACTORIES,
 1962

Industries	<u>Establishments</u>		<u>Personnel employed</u>		Value of gross production (Millions of Central American Pesos)	
	Number	Percentages	Number	Percentages	Number	Percentages
Total	<u>2,037</u>	<u>100.0</u>	<u>14,919</u>	<u>100.0</u>	<u>108.3</u>	<u>100.0</u>
Food industries	552	27.2	4,112	27.6	39.3	36.4
Drinks and Tobacco	30	1.5	1,245	8.4	19.3	17.8
Clothing and shoes	581	28.6	2,582	17.3	8.8	8.1
Non-metallic minerals	59	2.9	1,187	8.0	9.1	8.3
Metals and repairs of equipment on transport	353	17.2	1,573	10.5	7.3	6.7
Chemical products	33	1.6	621	4.2	7.9	7.3
Printing and paper products	68	3.3	1,258	8.4	7.4	6.9
Other industries	361	17.7	2,341	15.6	9.2	8.5

Source: Republic of Panama: Report of the General Controller of the Republic, October 1st, 1963.

4. The degree of organization and mechanization of the enterprises

More than a hundred industrial enterprises in Central America and Panama were visited; they were active in the following fields: cotton: spinning and weaving, cotton cloth; nylon: stockings, socks, garments; leather: shoes; construction: cement and clay bricks; wood: furniture; chemical products: matches, soap and plastics; metal: aluminium doors and windows, steel and iron reinforcing rods; tobacco: cigarettes; paper: bags and cardboard boxes; food products: vegetable oil, margarine, beer and soft drinks, soluble coffee, livestock, confectionery and canned tomato juice.

In this way it was possible to assess the levels achieved by the industrial enterprises in their effort to respond to the demands of modern industry. The visits to the enterprises were of prime importance in determining, on the one hand the present development of the factories in charge of production, and on the other hand in assessing (taking account of the characteristics of modern industry) the stages achieved and the objectives to be reached in the near future. It is natural for deficiencies in organization to appear in many new enterprises, when they pass without transition from small to large industry; on the other hand, these new enterprises have the advantages of youth, drive and the hope of a long and prosperous future. They are the ones most interested in knowing the weaknesses of their organization so as to overcome them, and fulfil the role to which they aspire in regional competition. It is with this aim in mind that some observations are presented on the policies and organization of the enterprises.

a) The policy of the enterprise.

This is a crucial matter for the very existence of the new enterprise venturing into regional competition. It has been proved that the establishment of an enterprise is often decided upon, without a previous, detailed study of the regional market; in other words, without having exactly defined the needs to be satisfied, or the preferred type of production, in the light of the possibilities of the region. Consequently the management of the

/enterprise

enterprise often ventures rashly into regional competition without having determined its policy and objectives with the necessary care. What products respond best to the needs and desires of the customer? What would their cost and sales price be? What will be the chances of competition? Decisions are often based more on the intuition of the manager than on knowledge of the real situation. Besides, the very concept which the manager forms of his own responsibility often implies weaknesses, with respect to economic and technical characteristics which have not been specifically adapted to the new situation created by the Common Market - as well as those related to the power of decision, which is excessively concentrated in the person of the manager, especially in the case of a family business of which there are many in Central America. Quite often the manager reserves the making of decisions for himself alone, because he does not conceive of a policy of delegating authority. That is why he cannot dedicate all the time he needs to the planning of the general policy of the enterprise.

b) The degree of mechanization

Because of the inexistence of detailed technical studies on the products to be made and on the market for these, the industrialists often buy expensive equipment which is not always appropriate to their needs and may exceed the requirements and manufacturing possibilities of the enterprise, and is therefore used far below its capacity. For the same reason the size of the factory building tends to exceed the requirements. All this implies considerable immobilization of capital which has no economic justification whatsoever.

The levels of mechanization were determined on the basis of the replies to the part of the questionnaire relating to productivity. In this, the enterprises were asked to point out the different stages of the process of manufacture, the type of process, and the kind of machinery used. From the answers one can deduce that the new industries have in general acquired modern, and essentially automatic and semi-automatic machinery.

/c) The degree

c) The degree of organization

The answers also confirm the fact that the most adequate methods are not followed in the utilization of the machinery, and that excessive labour is employed for the job. Production and assembly lines tend not to be used; when they are, their installation was not preceded by a detailed study of the different stages of production and of distances and times involved. In 1962, industry in the countries of the Isthmus was passing through the stage of improvisation inspired by the desire to act quickly than to do so efficiently.

In addition, the accounts tended to be kept in a manner not directly related to the manufacturing costs of each product. Information on sales was rudimentary and did not permit forecasting the trend of demand. As for market research in other countries, scarcely any enterprise in 1962 had a regional sales organization; agents were sent or representatives appointed who, with few exceptions, did not furnish sufficiently precise information about the needs of the clients, the preferences of the buyers and the steps which ought to be taken.

Everything concerning the management-personnel relations was based, with some exceptions, on empiricism not conducive to the best possible use of labour.

All these observations refer to the situation as it was in 1962.

Since the beginning of 1963 the Planning Committee for Central America, formed by the OEA, BID, CEPAL, SIECA and BCIE had been advising the countries on the formulation of medium-term plans and has established regional plans both for industry and for infrastructure through a Joint Planning Mission.^{8/}

In this rapid expansion, industries have been established for practical reasons, in regions which could provide the greatest facilities in terms of public services required for their operation. Hence the industrial concentration

^{8/} The Joint Planning Mission for Central America is composed of representatives of the following organizations: Organization of American States (OAS); Interamerican Development Bank (IDB); Economic Commission for Latin America (ECLA); Permanent Secretariat of the General Treaty for Central American Economic Integration (SIECA) and Central American Bank for Economic Integration (CABEI).

in the regions around the capitals of the countries and in some population centres where good communications and an abundant supply of electricity are available.^{9/}

5. The purchase power of the population of the countries of the Isthmus

The criteria which permit an understanding of the present role of wages in the region, both from a social point of view - with respect to the workers' levels of living - and from an economic point of view - with respect to the purchasing power of the population - are the per capita gross national product and the importance of industrial labour with respect to the economically active population.

a) Per capita Gross National Product

Table 5 shows the per capita G.D.P. by countries. It can be seen from the table that the annual income resulting from the wealth created is extremely low on a per capita basis, since the G.P. only reaches an average of 200 Central American pesos in Honduras, 270 in Salvador, Guatemala and Nicaragua, and some 400 in Costa Rica and Panama.

b) Percentage of the economically active population represented by manpower employed in the manufacturing industries

Table 6 shows the proportion of the economically active population represented by manpower employed in the manufacturing industries.

Considering it is the workers in the industrial sector who receive the highest remuneration - due to technical improvements in the enterprises and to their better training - it can be seen that the increase in purchasing

^{9/} These industrial centres are: For Costa Rica: San Jose, the provincias of Alahuela, Cartago and Heredia; Salvador: San Salvador, Santa Ana and San Miguel; Guatemala: Guatemala and Quetzaltenango; Honduras: Tegucigalpa and San Pedro Sula; Nicaragua: Managua, Leon and Granada; Panama: Panama, Cocle, Chiriqui and Colon.

Table 5

CENTRAL AMERICAN ISTHMUS: GROSS NATIONAL PRODUCTS PER
CAPITA, 1962

(Central American pesos calculated at 1960 prices)

Country	Product (Millions)	Population (Thousands)	Product per capita
Costa Rica ^{a/}	510.9	1,297	393.9
Salvador	719.5	2,649	271.6
Guatemala	1,085.8	3,991	272.1
Honduras	421.4	1,954	215.7
Nicaragua	415.6	1,500	277.1
Panama	470.8 ^{b/}	1,124	418.9

Sources: Note on Central America. United Nations: Estudio Económico de América Latina, 1964.

Panama: Boletín Estadístico de América Latina. Vol. II No.1

a/ The conversion in Central American pesos of 1960 has been made on the basis of 5.97 colons for a Central American peso.

b/ 1950 prices.

Table 6

CENTRAL AMERICAN ISTHMUS: RELATION BETWEEN THE NUMBER OF PERSONS
 EMPLOYED IN FACTORIES AND THE ECONOMICALLY ACTIVE POPULATION, 1962

Country	Employed manpower	Economically active population	Employed manpower Economically active population (Percentage)
Costa Rica	22,129	388,229	5.7
Salvador	38,411	822,722	4.7
Guatemala	53,217	1,376,885 ^{a/}	3.9
Honduras	15,813	577,076 ^{b/}	2.7
Nicaragua	20,376	463,720	4.4

Sources : Banco Centroamericano de Integración Económica, Departamento de Fomento de Inversión: Encuesta Industrial Centroamericana, 1962, undertaken by the Joint Planning Mission for Central America.

a/ Estimation.

b/ Estimation made on the basis of the increase of the economically active population with the exclusion of home workers. Calculated on the basis of total economically active population in 1961.

/power which

power which this represents, is extremely limited since these workers constitute only about 2.7 per cent of the economically active population in Honduras, about 4 per cent in Guatemala and about 5 per cent in Salvador, Costa Rica and Nicaragua.

6. National and International Cooperation

The process of industrialisation is promoted by the Governments of the six countries, on a regional as well as on a national level. It tends to create within the framework of the Common Market the conditions necessary for the establishment of new industries and it tends also to expand the market through constructive competition. It presupposes, on a national level, legislative measures which, in the fiscal sphere, under certain conditions, grant customs exemptions for imports of new equipment and of certain raw materials and which grant tax exemptions during five or ten years to those enterprises new to the regional market, whose operation implies high installation and equipment costs. All these protective measures, which have been adopted spontaneously by each of these countries, also tend towards uniform regional regulations on customs and tax exemptions applicable to integration enterprises.

International cooperation has been obtained directly from organizations like OAS, SIECA, BCIE, BID, ICAITI and CEPAL and in various forms of technical assistance from the United Nations. It is aimed at the various sectors of industrial and social development, and at the development of the community as a whole. The programmes have required the preparation in each country of a development plan on a national scale and the establishment of close coordination among the Government Departments, to draw up an inventory of needs, priorities and activities in which the collaboration of international experts can provide the greatest likelihood of success for approved projects.

For the promotion and establishment of this type of programmes, the national organizations in charge of planning have the collaboration of the United Nations Bureau of Technical Assistance Operations and of the United Nations Special Fund (which have resident representatives in San Salvador

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for the five Central American countries and in Panama)^{10/} Among other programmes from which technical assistance has been obtained, the following should be mentioned: The Regional Productivity Mission of the International Labour Office has since 1960 provided training courses for managers and industrial technicians in the various Central American countries; a project financed by the Special Fund will intensify these activities during the coming years.

The governments, convinced of the importance of the effort which is required in industrial organization, have favoured the creation of Productivity Centres or Institutes in all the countries. The Agency for International Development (AID) has also actively cooperated. Thus the region has now at its disposal regional organizations and the international technical cooperation which are necessary for the success of undertaking the size of the Central American Common Market.

^{10/} On the 22nd of November 1965, the United Nations General Assembly created the United Nations Development Programme (UNDP), uniting in a single programme the United Nations Expanded Programme of Technical Assistance and the United Nations Special Fund.

Chapter II

OBJECTIVES, SCOPE AND METHOD OF THE STUDY

1. The object of the study

The principal object of this study was to investigate to what extent the different labour and production costs of the various Central American countries may affect their capacity for competition within the Common Market, taking into account the productivity of various selected industries which were considered representative and produced for the various national markets or for the regional one; and wherever possible to suggest measures which could compensate for the disadvantages of the countries in a position of inferiority. Already before the study was begun ECLA suggested the appropriateness of trying to measure the total labour cost with reference to a unit of production in various industrial activities so as to be able to analyse the reason for the discrepancies which might be found, determine their influence on the composition and trends of Central American trade and especially their possible significance for the Central American Common Market. When this would be known, an economic explanation could also be sought; the problems this gave rise to could be analysed in a way which would permit recommendations to be made for the equalization of the possible effect of the social charges. This equalization was to be achieved by increasing the productivity of the country with inferior conditions and with the highest cost of labour per unit of production.

It was hoped that based on the result of the study, the ECLA expert could recommend measures to be taken by the governments with a view to:

"a) Equalizing the impact of social charges on labour costs and prices of industrial products, to the extent that such measures may contribute to the expansion of the Regional Market.

"b) Ensuring that the workers share in the benefits of higher productivity, in a way best suited to stimulate the growth of a skilled and stable labour force; and

/"c) Keeping

"e) Keeping to a minimum the administrative costs of social programmes relating to industry and simplify the administrative procedure faced by employers and workers."

It is important to define the relation which exists between the statistical survey on labour costs in Central America and Panama which was made by the International Labour Office and the present study on industrial productivity. In the statistical survey, data were obtained for each industry, which do not permit a comparison of identical products made by different enterprises in different countries.

The statistical survey tended to determine the labour costs for each country and each branch of industry and so obtain a panoramic view of the situation as it was in each country and in the region as a whole, i.e., levels and structures of labour costs, differentiation of wages and of the remuneration per hour of work, including social charges.^{11/}

To achieve the proposed objectives the ECLA study had to be based on comparisons of detailed information about production costs with reference to labour cost in order to determine levels of productivity and to ascertain possible deficiencies in the organization of the enterprises. In the ILO questionnaire, these essentially economic data were not gathered.

^{11/} International Labour Office. ILO Report to the Governments of Costa Rica, Salvador, Guatemala, Honduras, Nicaragua and Panama on the cost of manpower in industry. Geneva, 1966 (In Spanish) OIT/OTA/Centroamerica/RI.

2. Survey on industrial productivity and production costs.

Since the lack of national or regional information on industrial productivity presented the first obstacle, it was necessary to begin with a special regional survey on productivity and costs of production with the cooperation of private and official competent organizations in the six countries. It was considered indispensable in order to be able to suggest adequate solutions, to specify the competitive capacity of the industries of each of the six countries of the Central American Isthmus in relation to their labour cost.

a) Method used for the survey

It was necessary first of all to think of a method which would serve to compare: a) labour costs and b) industrial productivity in the different countries and in the different industries of each country. It was decided to make the comparisons on the basis of data obtained from the audits of the enterprises on certain products with specific characteristics, which were considered to be "indicators" of the various types of production of the manufacturing sector and of the different degrees of the utilization of labour in the process of production.

To determine labour costs information was obtained from the greatest possible number of industrial firms on man-hours paid and the amount of the corresponding remunerations and social charges.

To determine the productivity of the enterprises with organized accounting systems, data was requested concerning unit production times and the corresponding costs of both labour and the various factors determining the cost of production of the selected indicator products.

Thus, practically two investigations were made at different levels within the same enterprises: a) at the level of all the workers in the enterprise and b) at the level of all the workers engaged in the production of the indicator product. The number of enterprises answering to the first point was greater than that answering to the second.

/b) Organization

b) Organization of the survey

The survey could not have been accomplished with the necessary objectivity and precision without the cooperation of the national organizations which accepted the responsibility for the investigation, and especially without the help of the Centres or Institutes of Productivity or Industrial Development in the six countries. In charge of the investigation were the directors of the "Instituto Salvadoreño de Fomento Industrial" (Salvador); the "Centro de Fomento y Productividad Industrial" (Guatemala); the "Centro Cooperativo Técnico-Industrial" (Honduras); the "Instituto de Fomento Nacional" (Nicaragua); and the "Centro de Desarrollo Industrial" (Panama). In Costa Rica, where the Productivity Centre was not established till 1962, the investigation was in the hands of the Planning Office, directly dependent on the Presidency of the Republic; in Honduras it remains under the Central Bank.

Those in charge of the Regional Productivity Mission of the International Labour Office in Central America, cooperated with the national organizations and had in their charge the selection of the investigators. It was necessary to select preferably economists or accountants among the personnel of various institutions, and the Centres or Institutes of Productivity or Industrial Development took charge of the survey in each country under the supervision of an official who coordinated the work of the investigators, insured the necessary contacts with the managers of the national enterprises and verified the answers received.

c) Selection of the industrial indicator products

In order to make a regional comparison of productivity, it was considered necessary to use similar products made in the six countries. The products were to be representative of the various types of industrial production in those countries, so that with the information gathered it might be possible to appreciate on the one hand, the differences in the levels of organization of the enterprises and on the other the various levels of productivity. The products selected according to this criterion were considered indicators of the industrial situation in the various countries.

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It was therefore necessary to determine the indicator products, the technical characteristic of each and to locate the enterprises producing them in each country.

The requested regional comparison was to be made based on selected industries producing for the national or regional markets of the Central American countries. It was, therefore, decided that the indicator products should combine the following characteristics:

- a) They should, as far as possible, be representative of the main branches of the existing industrial sector;
- b) To allow for comparisons between the countries, they should be produced in all or the majority of the six countries;
- c) They should represent various degrees of combined utilization of labour and equipment;
- d) They should exercise an influence on the development of the Common Market thanks to:
 - i) a possible specialization which, through an increase in production would permit satisfying the needs of other Common Market enterprises;
 - ii) the possibility of satisfying the demand of a market a considerable distance away;
 - iii) the possibility of establishing important supply-demand relationships with other industries;
 - iv) mass production to permit a reduction in sales price and
 - v) the elimination or reduction of imports from countries not belonging to the Common Market, especially through a greater use of raw materials obtained nationally or from other Common Market countries.

With the help of ECLA the expert made a prior list of the products which fulfilled these conditions in the six countries on the basis of a comparison of the national industrial censuses and the reports of competent organizations on the economic situation of the six countries. A first selection was made of 14 industrial branches and 43 products, and the list was finally reduced to 25 products made in all or most of the countries; all this was done after determining the technical characteristics of each product in order to obtain a comparison of practically identical products.

The products selected as indicators can be found in Appendix 2 with the technical specifications, unit of measurement and type of packaging of
/each;

each; these were initially sugar, hydrogenated margarine, beer, cigarettes, spun cotton, woven cotton, knit underclothing, shoes, men's shirts, men's socks, plywood doors, paper bags, plastic tubing, edible vegetable oil, soap, paints, synthetic detergents, cement blocks, backed clay bricks, aluminium windows, soluble coffee, plywood, matches, Portland cement, iron or steel reinforcing bars.

d) Selection of enterprises to be investigated

The Industrial Productivity Centres and Institutes, in agreement with the Employers' associations supplied a list of the establishments which in each country made these twenty-five products. It was decided that unless it was absolutely necessary, only establishments employing 20 persons or more should be included in the study because it was considered difficult to obtain financial information on smaller establishments, whose participation in regional competition would, obviously, be of little importance. On the basis of the lists supplied it was found that in 1962 there were few enterprises making some of the selected products; in these cases the cooperation of all or most of them was obtained. On the other hand, for other products like shoes and shirts, there were very many enterprises so it was not possible to include all of them in the investigation. The Productivity Centres or Institutes of each country selected those which in their judgment were the most representative: 300 of these enterprises were included in the study.

e) The questionnaire

The questionnaire on "Productivity and Costs of Production in Central America and Panama" was divided into two parts; one with information which had to be obtained on the selected product and the other referring to the whole production of the enterprise which made it. The questionnaire included more than 22 groups of questions. In the first part they referred to: a) differences between the selected products made by the enterprise and the indicator product; b) the time and cost of labour necessary to make a unit of that product; c) value of the remaining factors that contribute to the cost of production; d) the amounts produced in 1962 and wholesale prices.

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In the second part, the questions dealt with the factors determining the costs of production, electric power capacity installed, percentage of installed capacity used in 1962, stability of labour, incentive payments, levels and means of the professional training of personnel and the relations between these and the management. The questions on working hours, wages and social charges were the same as those of the International Labour Office questionnaire, so as to facilitate the comparison of the results of the two surveys.

f) The survey

i) Publicity. Meetings were held in all the countries to give the managers of the enterprises the names of the products selected for the survey, to explain the objectives and procedures, and to clarify any doubts there might be. For the same purpose, press interviews were held and talks were given on the radio to explain the importance of the survey for Central America. The public was kept in touch with the progress of the study, through the press.

ii) Training of the investigators. At the same time the investigators received instruction through theoretical explanations, questionnaire analysis and some practical training.

iii) Duration of the survey. The survey was started in the industrial enterprises, at the beginning of 1963. The investigators personally delivered 300 questionnaires on a first visit; previously, the manager of each enterprise received a recommendation from the employers' association emphasizing the interest of the survey and asking them to give the visitors their attention.

iv) Difficulties in obtaining data. Although the enterprise visited usually employed 20 or more persons, and so in most cases it was possible to use information based on reliable accounts, nevertheless the investigators sometimes came across difficulties in obtaining information in the required form for the comparisons. On some occasions they had to be satisfied with estimates which they themselves asked for, and for which it was necessary

/to find

to find concrete characteristics and values so as to reduce errors to a minimum.

v) Reception of the questionnaire. The questionnaire was in general well received and information was obtained from the accountants concerning productivity as well as the various factors in the cost of production. Some managers expressed doubts as to the size of the questionnaire and the number of questions it included and they showed reservations about data which they considered confidential. They were then supplied with a reduced questionnaire concerning exclusively the indicator product.

vi) Classification of data. 273 enterprises, employing 32,638 workers and foremen, answered the question on the cost of labour. 179 enterprises, with 23,151 workers and foremen, answered the questions on productivity and costs of production.

Data were obtained on: sugar, cotton spinning and weaving, knitted vests, underclothing, shoes, men's dress shirts, men's socks, plywood doors, paper bags, plastic tubing, edible vegetable oil, soap, paints, cement blocks, clay bricks, matches, aluminium windows, iron or steel reinforcing rods..

On the other hand, insufficient data were obtained to be able to consider the following: hydrogenated margarine, beer, cigarettes, synthetic detergents, soluble coffee, plywood and Portland cement.

Because of insufficient data, it was necessary to eliminate 7 of the 25 products which were to serve as a basis for the comparison. The importance of the data lacking is only relative, since it referred to products which, for various reasons, do not compete in the Common Market and which follow, directly or indirectly, a similar regional policy.

The classification of the data from the questionnaires, and the drawing up of tables with the available information, was begun in November 1964 and was finished in June 1965.

3. Value of the information obtained

To determine the trust which could be placed in the results of the survey, the significance of the answers received had to be considered in relation to the number of establishments visited, their distribution by products and countries and their substantive characteristics.

/a) Degree

a) Degree of representativeness

It should be mentioned that the number of enterprises with 20 or more workers in the industrial branches making the selected indicator products, as obtained in the ECLA survey, coincides with the number obtained in the "Central American industrial survey 1962" of the Joint Planning Mission for Central America.* In the latter were registered 259 enterprises with 20 or more workers (excluding those making men's dress shirts) which made the indicator products; the ECLA questionnaire was given to 300 enterprises including those in Panama, and answers were received from 278. Nearly all of the enterprises which were of interest, as well as the workers and foremen they employed, were thus covered in the survey.

b) The ECLA survey

Thus, of the 300 questionnaires delivered in the six countries to the enterprises producing the 25 indicator products, 278 answers were used for the analysis. The 22 which remained, concerned mainly the products which had been excluded.

Despite the elimination of these 7 indicators products, the 18 which remained together reflect the industrial situation of each country, by representating each of the large sectors which take part in regional competition, and by synthesizing a variety of labour cost percentages within the cost of production.

First will be examined the way in which the answers to the questionnaires were classified, distinguishing as mentioned, between those referring to labour costs and those referring to productivity; then it will be shown to what extent these answers are evenly distributed among the products and countries.

* See table 7 of the original Spanish version.

Table 7

CENTRAL AMERICA: NUMBER OF ESTABLISHMENTS WHICH EMPLOY
 20 PERSONS OR MORE, BY SELECTED INDICATOR PRODUCTS

Products	Central America	Costa Rica	Salva- dor	Guate- mala	Hondur- ras	Nicara- gua
Sugar	57	25	9	8	3	12
Beer	13	4	2	3	3	1
Tobacco	12	2	1	6	1	1
Cotton spinning ^{a/}	22	2	9	8	1	2
Cotton cloth ^{a/}	24	2	9	9	2	2
Knitted cloth	48	6	30	11	1	-
Shoes	50	13	5	18	8	6
Vegetable oil and grease	15	1	-	8	2	4
Painting	7	2	2	1	-	2
Clay bicks and porcelan	4	1	1	-	-	2
Hydraulic cement	4	-	1	1	1	1
Steel products	3	-	2	1	-	-

Source : Misión Conjunta de Programación para Centroamérica. Encuesta industrial Centroamericana, 1962.

a/ Returns obtained from "Programa de Acción para la Federación Centroamericana de Industrias Textiles" by Eberhard Schäfer, United Nations expert for textile industry. Central American Programme. United Nations 1961. (Tables 1 to 3).

/c) Answers

c) Answers concerning labour costs

i) By countries. The evenness of the distribution of answers among countries is shown in table 8.

ii) By product. Similarly, the distribution of products by country is shown in appendix 2.

d) Answers concerning productivity and the cost of factors of production

i) By countries. The distribution between countries of the establishments which answered the questions on productivity can be considered acceptable and relatively even when compared with the number of establishments and workers included; this can be seen in table 9.

Table 8

CENTRAL AMERICA: ANSWERS CONCERNING LABOUR COSTS

Number of units	Total	Costa Rica	Salvador	Guatemala	Honduras	Nicaragua	Panama
Number of enterprises	273	47	56	60	34	35	42
Number of workers	32,638	3,437	7,303	8,969	2,829	6,480	3,620

/Table 9

Table 9

CENTRAL AMERICA: ANSWERS CONCERNING PRODUCTIVITY AND THE COST
 OF FACTORS OF PRODUCTION

Number of units	Total	Costa Rica	Salva- dor	Guate- mala	Hondu- ras	Nicara- gua	Panama
Number of enterprises	179	34	33	37	18	35	21
Number of workers	23,151	2,374	5,400	5,854	1,350	6,480	1,693

ii) By product. Also well distributed was the number of establishments relative to each product, if one allows for the differences in industrial development of the countries (see appendix 3 of the original Spanish version).

71% of the enterprises employing 66% of the total number of workers covered by the survey, answered the questions on industrial productivity and factors in the cost of production. These percentages like the distribution of enterprises by products and by countries, can be considered acceptable.

The information obtained on industrial productivity and the costs of production thus constitutes a base both detailed and wide enough for the intended study. As has been seen, it is different - in its character, documentation required and its object - from the International Labour Office survey on the labour cost in 20 industrial branches, which was aimed at obtaining a sample of representative values. To complete the regional comparison of the enterprises which make similar indicator products in the various countries, and to obtain the documentation required for this, the cooperation of the interested enterprises was needed; the value, in the statistical sense of the word, of the data supplied cannot for that reason

/be considered

be considered absolute. What value can then be given to the information and statistics on which this study is based?

Remembering the degree of industrialization reached in 1962 by each one of the Isthmus countries, in connexion with the indicator products, it can be said: a) that the majority of those products were new productions for which one or more factories had been built and so their numbers were small, and b) that some of the products corresponded to old productions - such as spun cotton, shoes or men's dress shirts - so that there was a greater number of enterprises; these, however, competed with handicraft enterprises which at times produced more than 50% of national production. While in the first case it was possible to include all or most of the enterprises making the indicator product, in the second it was necessary to do with information from enterprises considered as representative.

In both cases, the cooperation of the industrial employers organizations and of the Centres or Institutes of Productivity, facilitated the inclusion of the most important enterprises, called to compete in the national or regional market. Thus, though one cannot speak of "statistical representativeness", the figures obtained can be considered to offer the guarantees necessary for the object of this study.

e) Reliability of the answers to the questionnaire

In general, the answers to the questionnaire did not give rise to difficulties - after their verification in each country by the national coordinator of the study - other than those relating to: a) the conversion, when necessary, of figures supplied, to the regional units selected to make a regional comparison possible; and b) the adjustments which had to be made to the figures supplied by enterprises, when these were very different from the estimates for the indicator product. In very few cases errors were found in the figures supplied and those that appeared were rapidly corrected.

f) Final version of the study

In the preliminary version certain gaps were found which can be attributed to the lack of certain answers on important products in some countries. To

/clarify

clarify any doubts and obtain the additional data with the cooperation of the Centres of Productivity or Industrial Development, the expert visited the six Isthmus countries at the end of 1965. The clarifications and additional information received from a large number of enterprises made necessary a revision of most of the tables, and required new calculations of the correlations on productivity. All the corrections have been incorporated in this final version of the study.

4. Additional Studies

The consideration of the factors influencing the costs and productivity of labour and the social charges, in order to balance their effects, has required the study of various aspects not referred to in the questionnaire. For example, in order to make recommendations on the effects of the social charges, one has to know the obligations imposed on the employer by legislation in each country concerning the protection of the workers, social security, and the regulations for social service which exist. Similarly, it was necessary to examine Government policies relating to problems of wages, vocational training and employment. It was thus necessary to make additional surveys and special studies. Among them were: a) a comparative study on aspects of labour legislation in the six countries related to the objects of the study; and b) a comparative study of the regulations for social security in the six countries.

In addition, special questionnaires were sent to various authorities in 1962 on: a) national wages policies and respective criteria used; b) national worker training policies and respective criteria used; c) national policies and criteria for employment; d) levels of social security regulations; and e) the extent and character of "social work" and social services, etc. In order to consider one of the principal factors influencing the productivity of the workers, a survey was also made on the relation between the minimum Central American diet and its cost in each Isthmus country on the one hand and the average wage of the six countries on the other.

5. Drafting of the study

On the basis of the documentation obtained, the general plan of the study was, as has been mentioned, established and approved.

Part two

CONCLUSIONS AND RECOMMENDATIONS

Chapter III

CONCLUSIONS

a) Summary of the principal conclusions drawn from the study

The study on labour costs and industrial productivity in the Central American countries and Panama, has led to conclusions which clarify some of the problems presented by the development of the Common Market. Of these, the most important are:

1) The length of the legally established normal working week differs greatly from one country to another. However, the number of hour per year worked actually for the employer, i.e. after deducting the number of holidays, paid vacations, etc. - which differ from one country to another - reduces these differences significantly.

2) The important differences which exist between wages in the six countries are reduced to a minimum when one takes into account all factors included in labour costs, which are higher in countries where wages are lower, and are thus in the end very similar in all countries, except Panama.

3) Social charges - excluding hours paid but not worked, since these are considered in the survey as part of the remuneration - only make up a minimum proportion of the labour costs and do not influence the competitive capacity of the countries.

4) Regarding the relationship between labour costs and productivity:

a) Highest labour costs frequently coincide with highest productivity;

b) The labour cost per hour is not a determining factor in the cost of production.

c) To measure productivity by means of indicator products it is necessary to relate the unit production time of each of them to the corresponding labour costs. It is on the unit production time of each product that labour costs really depend, and therefore, high wages do not have the negative incidence they are said to have on production costs;

/d) The

d) The factors which determine the level of productivity are:
i) the degree of organization of the enterprise; ii) the extent to which resources are used in a rational manner; iii) the workers' individual level of output.

e) There is a positive correlation between better social conditions and higher productivity.

b) The problem raised and the nature of the study

In the area of nearly half a million square kilometres covered by the six countries of the Central American Isthmus, and possessing a population of some 12 million inhabitants, small industries have slowly been establishing themselves in the capitals, where for a long time handicraft production has been the only one and still employs 58% of all the industrial workers. Recently, the prospects of forming a wider area of exchange, together with the first agreements of the Common Market, have given rise to a powerful and dynamic drive towards industrialization. In the six countries numerous enterprises have been installed which employ modern industrial methods: perfected equipment and mass production of new consumer goods which until now have been imported. These new methods, however, have been put into practice so rapidly and spontaneously that many of the new enterprises have not, as yet, been able to make the studies required for the adoption of a policy based on the needs of the regional market. In 1962, the number of workers employed in factories with a maximum of five employees was 150,000 in Central America and 12,000 in Panama; with their families they totalled more than half a million persons.

This study originated in a controversy over the way in which the different labour costs in the various Central American countries could influence their capacity for competition in the Common Market. There are many industrialists who believe that the social charges imposed on them by their country's legislation are higher than those imposed on their competitors in other countries, and who feel that these costs make it more difficult for them to compete in the regional market. In other sectors which support the

/Common

Common Market these fears are refuted by the argument that high wages do not imply a handicap in regional competition because they presuppose a higher productivity.

It was, therefore, necessary to gather the essential data and to analyse them, so as to be in a position to answer these two statements.

The survey made by ECLA with this aim is based, as regards labour costs, on the data obtained from the accounts of 273 manufacturing enterprises employing 32,638 workers and foremen - almost 22% of all the industrial workers in the Isthmus - and as regards productivity, on data obtained from the same accounts of 179 of these enterprises, employing 23,151 workers and foremen (12% of the total).

In this way it was possible to determine with a satisfactory degree of representativeness, the situation of the enterprises studied, with references to their labour costs and the relation of these to productivity.

c) Differences in working hours

On the basis of legislation regarding the number of working hours, considerable differences were found among the countries when comparing the length of the normal working week. It was 44 hours long in Salvador and Honduras, 45 in Guatemala and 48 hours in the other three countries. If, however, the national regulations are examined in more detail, in order to find the total number of working hours which the employer can legally demand in one year - i.e., deducting the hours not worked because of holidays and annual vacations with pay, etc. - then the situation takes on a different light. It can be seen that in three of the countries - Guatemala, Nicaragua and Panama - annual working hours amount to about 2,250, to 2,160 in Salvador and Honduras and 2,368 in Costa Rica, which in this respect finds itself in a relatively advantageous position.

Regarding these observations some people might answer that perhaps the legislation is not strictly observed. The survey showed that the actual average number of working hours is, in all the countries, shorter than that mentioned above, except in Nicaragua where it is 14% above the legal length.

/It can also

It can also be seen that overtime in these countries does not exceed 10% of normal working hours. In addition, it was shown that in Panama, which has the hottest climate of all six countries, actual working hours (the highest after Costa Rica) amount to an average of 43.5 hours a week over the year.

The respective positions of the six countries of the Isthmus with regard to the length of the working year are shown in diagram I, which permits a comparison of annual hours in each country, corresponding to legal working hours on the one hand, and to actual hours worked, on the other. The diagram also shows the number of hours paid but not worked, overtime and the equivalent of Christmas bonuses expressed in hours paid and not worked.

The survey also showed that the potential installed productive capacity was only partially used by the manufacturing industries in 1962. The majority of enterprises which answered the questionnaire only used between 60% and 80% of their installed capacity.

From the comparison of the annual number of working hours at the disposal of the employer it can be seen that Costa Rica has an advantage of 200 hours per year per worker over the rest of the countries in the Isthmus; this allows her to make better use of her productive capacity. Nevertheless, the advantage is counterbalanced by the fact that in Salvador and Guatemala the number of industrial workers is double or more than double that of Costa Rica.

d) Differences between remunerations and labour costs

The survey showed that wages are low and differ greatly between the various countries. This affects the levels of living and the purchase power of the workers, a fact which will be examined later on. These differences in wages seem to be the cause of the employers' fears mentioned above.

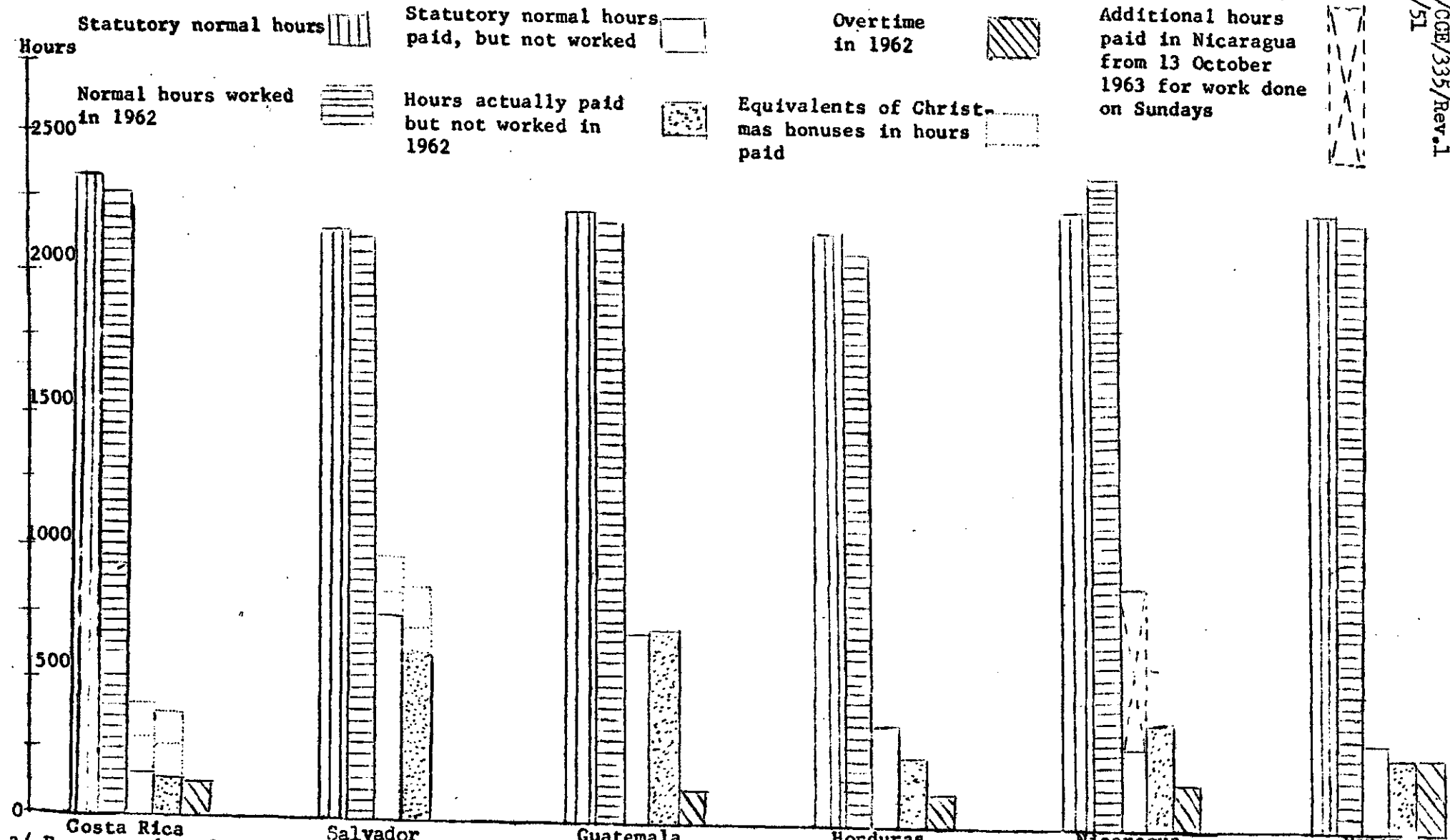
According to the survey, the waged per hour corresponding to the legal wage or established in collective agreements, are on an average:

/Diagram I

Diagram 1

ANNUAL AVERAGE WORKING HOURS PER LABORER AND HOURS PAID BUT NOT WORKED

E/CN.12/CEE/335/Rev.1
 TAO/LAT/51
 Page 40



a/ For more details, see Table 26 in the full report (Spanish edition); b) See hours paid, but not worked, page 61 of the Spanish edition.

0.202 Central American pesos in Nicaragua, 0.210 in Salvador, 0.222 in Guatemala, 0.254 in Costa Rica, 0.276 in Honduras and 0.536 in Panama. The labour costs per hour including social charges are compared in diagram II.

The picture changes when labour costs per day, including social charges, are examined from an economic point of view. These costs are highest in Panama where they reach 5.33 Central American pesos. Then follow Honduras with 2.92 and Guatemala with 2.65 pesos and they are equal in Costa Rica and Salvador at 2.50 pesos. In Nicaragua they stand at 2.00 pesos but since at the end of 1963 a law was passed obliging employers to pay one weekly day of rest, the cost per hour has risen to 2.34 pesos. In order to secure a basis for comparison - costs have been included which correspond to the hours not worked during the year yet paid by employers, as well as the legal Christmas bonuses, which together represent from 12% to 17% of the number of hours worked in Costa Rica; 13% in Panama, 14% in Nicaragua, 17% in Honduras, 31% in Guatemala and from 38% to 41% in Salvador.

Thus, the differences noted in basic wages per hour among the countries, diminish as one considers successively the average daily earnings, daily remuneration costs and lastly daily labour costs. The latter have been used for the regional comparison.

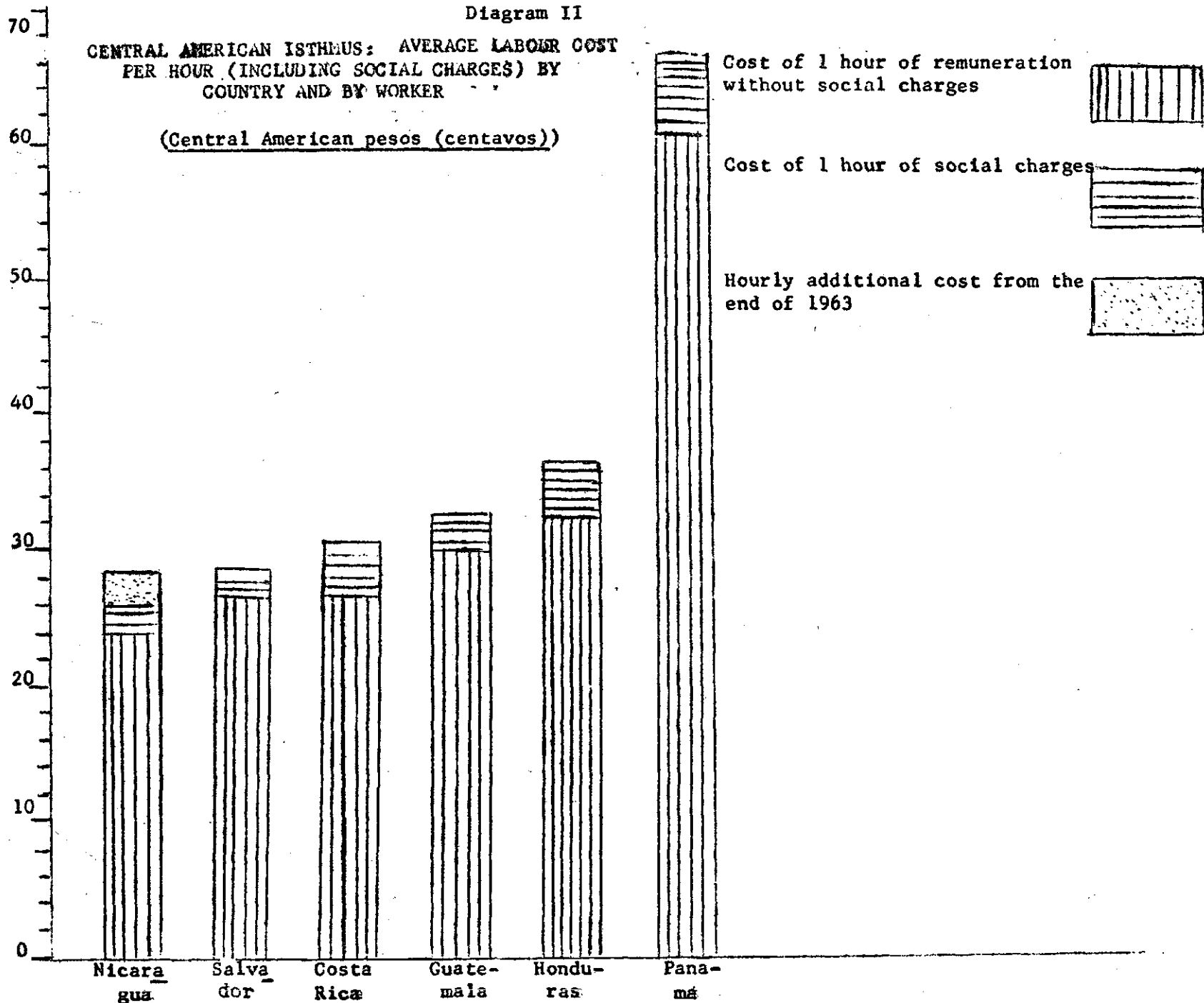
This tendency towards equality in labour costs is due to a real compensation among the various elements which make up those costs in the different countries. Because of this, disparities are offset and it can be seen that when basic wages per hour are lower, the cost of hours paid but not worked and of the social charges added to it is higher, as if a kind of national self-defense were intervening so that the worker might obtain a minimum acceptable remuneration. In the countries where this happens, the most influential compensatory factor is the number of hours not worked but paid by the employer, which is much higher than in other countries.

/Diagram II

Diagram II

CENTRAL AMERICAN ISTHMUS: AVERAGE LABOUR COST
PER HOUR (INCLUDING SOCIAL CHARGES) BY
COUNTRY AND BY WORKER

(Central American pesos (centavos))



Thus, if basic hourly wages show marked differences among the various countries, these differences are much reduced when all circumstances are taken into consideration. In 1962 the difference in the cost of one day's labour - including social charges - for countries of the Common Market was 0.840 Central American pesos when comparing the highest cost (Honduras 2.920) with the lowest (Nicaragua 2.080), i.e., 10.5 Central American cents per working hour (from 12th October 1963, the difference has been reduced to 7 cents per hour after the employer had been obligated to pay the weekly day of rest); between Costa Rica and Salvador the difference per hour is only 2 cents.

In addition, to determine the influence of wages and labour costs on the costs of production, one must take into account the percentage of the latter cost represented by labour. It can be seen that this percentage varies from one industry to another. It is 5% in industries producing paint; it rises to 20% in cotton spinning, weaving and shoe industries etc., and even reaches 30 to 60% in the brick making industries, where labour still constitutes the principal factor of production in the Isthmus.

Consequently it can be seen that, as with normal legal working hours, the repercussions of hourly wages, statutory or contractual, on the cost of production can only be appreciated by studying the mechanisms which constitute them; in both cases the results of the study show a considerable reduction in the differences between the countries.

e) The social charges

It is quite possible that the fears of the employers should be attributed to the social charges, properly speaking, in each of the six countries, rather than to the differences in wages. Of course, there is no discussion that they are a necessary and indispensable complement of wages, but it is often considered that countries with a less generous legislation on behalf of the workers obtain a marked advantage in competition, to the detriment of others. If hours not worked, but paid by the

/employer

employer, are not considered to be social charges, but are incorporated into remunerations, as is done in this survey, as well as in those of the International Labour Office,^{12/} and of the European Economic Community,^{13/} it can be seen that these charges (without including the statutory contributions of the workers and the State to the financial funds of the Institutes), only absorb a very small proportion of the labour costs and no more than between 7% (Salvador) and 12% (Costa Rica) per hour, which under no circumstances influences the competitive capacity of any of the countries in the Isthmus.

Because of the extent of its field of action, Social Security has become the basis of unity for the modern national collectivities, as a result of the role it plays, as a means of social justice and redistribution of wealth.

As an instrument for the systematic elimination of poverty, Social Security is an indispensable complement of wages designed to permit the family of the worker to have economic stability, to improve their health and maintain the standard of living they had before they came up against unexpected difficulties.

For these reasons it must be considered imperative to generalize social security in countries where wages are as low as this, for the benefit of industrial workers who, coming generally from rural areas, have lost the social protection which they received within the family subsistence economy.

Social security imposed by law on industry, either in the interest of the employer - when it concerns insurance covering risks for which he is liable, such as work injuries, occupational disease - or in the interest of the worker - when it concerns sickness, pensions, death, and survival benefits - should in all cases be under the supervision of one simple body in order to diminish the administrative expenses. This is

^{12/} International Labour Office: Labour costs in European industry; Studies and Documents, New series, number 52. Geneva 1960.

^{13/} Survey on industrial wages in the European Economic Community, 1959.

the case in all the countries of the Isthmus, except as regards insurance against work injuries and occupational disease, in Costa Rica, Guatemala and Panama.

Costa Rica and Panama are at present the countries where systems of social security are the most complete, both from the point of view of coverage, since they cover almost all the industrial workers, as well as from the point of view of the protection and risks covered, since, besides sickness insurance already existing in the other countries, they have established, as did Nicaragua, old age pensions for workers.

The comparison of the existing national systems as they appear in diagram 3, gives some idea of the importance of the work which awaits the social security Institutes, since they have to extend their activities to new categories of wage earners and increase the protection which they are giving at present.

This extension is closely related to the solution of the problem of financing costs of these systems. The levels of wages are so low that there is absolutely no possibility of making any reductions in them as contributions to be paid into the Institutes' funds. On the other hand it has been shown that in many enterprises, the employer grants direct benefits to workers, which are sometimes added to social security contributions paid and at other times are substituted for them, when the enterprise has not yet been incorporated into the statutory system; also on other occasions employers pay indemnities for dismissal or for industrial accidents.

Social security systems face new responsibilities with the establishment of the Common Market. They have to adapt themselves to the consequences of new obligations which consist in ensuring protection to those workers who will have to move through the territories of the different countries of the region, and in assuring them at the same time of the preservation of the rights they might have acquired in any one of them. The change of perspective therefore requires a regional social security policy.

Diagram III

CENTRAL AMERICAN ISTHMUS; RISKS COVERED BY THE SOCIAL SECURITY INSTITUTES

Risks \ Country	Costa Rica	Salva- dor	Guate- mala	Hondu- ras	Nicara- gua	Pana- ma	Observations
Sickness: Medical assistance	⊘	⊘	○	⊘	⊘	⊘	① Draft regulation for medical assistance and cash benefits which will include the Mother-Child programme at present in force; protection against accidents in general.
Cash benefits for sickness	⊘	⊘	○	⊘	⊘	⊘	
Maternity	⊘	⊘	⊘	⊘	⊘	⊘	② Begin with the revalidation of invalids.
Disability	⊘	○	○	○	⊘	⊘	
Old age	⊘	○	○	○	⊘	⊘	○ Prescribed by legislation but not yet included.
Survival	⊘	⊕	⊕	⊕	⊘	⊘	⊕ Partial, only in cases of work injury and occupational disease.
Work injuries	△	⊘	⊘	⊘	⊘	△	⊘ In force and administered by the Social Security Institute.
Occupational diseases	△	⊘	△	⊘	⊘	△	△ In force but administered by another institute.
Involuntary unemployment	○	○		○	○		
Family allowances							

In 1963 during their conversations with the expert, the directors of the various social security Institutes of the Isthmus were convinced of the need to have uniform objectives and methods so as to face this new situation, and they showed themselves willing to study, in future joint meetings, the means of accomplishing this. Of the greatest importance is the initiative afterwards taken by the Ministers of Labour and Social Assistance of the Central American countries, who aimed at achieving, in the shortest possible time, uniformity in the protection programmes for sickness, maternity, industrial risks, disability, old age and death, as well as in procedures for the granting of benefits. In this respect, the main measures which could be adopted by the governments to achieve this purpose are pointed out in Recommendation No. 2.^{14/}

Important as the remuneration of work may be in satisfying the needs of the workers and their families, it must still be complemented by other measures of social action, which are no less important, and consist of services which help the workers raise their level of living.

The incipient industries of the region have not, till now, paid enough attention to social action or to "social work" as such; these are factors which are of great importance in achieving an increase in workers'

^{14/} While the Committee for Economic Cooperation is mainly interested in the economic implications of the national regulations which influence labour costs, the Ministers of Labour and Social Assistance are interested above all in their social aspects. These ministers were summoned by the General Secretariat of the Organization of Central American States (ODECA), to a meeting in San Salvador, in April 1964 where they approved resolutions recommending the regional unification of legislation concerning labour and social security in the Common Market area. The resolutions suggested the creation of a Labour Council whose main function would be to orientate and coordinate the labour and social policy of countries members of the ODECA, and they recommended the creation of two technical commissions to determine the minimum standards which should be approved in the fields of labour and social security respectively. These three organs have now been set up. In this field of protection of unified workers, a draft convention was elaborated with the assistance of an ILO expert and approved by the technical commission on social security of ODECA in February 1965 and by the Labour Council of ODECA, composed of the Labour Ministers of the five Central American countries in October 1965. This convention is awaiting formal ratification to be implemented. In this effort of unification, it may be recalled that the International Labour Code is made up of the International Agreement adopted since 1919 in the successive annual sessions of the International Labour Conference in Geneva (Switzerland); besides, special recommendations have been made by the regional ILO conferences, in particular for Latin America.

output, as are the social services aimed at achieving the greatest degree of welfare for the workers during and outside their working hours. Only a few enterprises in the area have at their disposal trained social workers and organized infirmaries, maternity wards, dining rooms, dressing rooms, etc. "Social work" and social services do not, as yet, fulfill their role in the economic development drive, to the extent and with the intensity desired.

Thus, "social work" in the industrial enterprises ought to be given the importance which it deserves in the programmes of the Schools of Social Work of the Isthmus.

f) The level of living of the workers

The examination of the main factors which together determine the level of living of the workers - remuneration, social security and social services - demonstrates their low level in Central America, especially when one takes into account that the birth rate is extremely high and the number of dependents whose needs presumably have to be paid for by the remuneration, is also very high. This implies serious repercussions on health and on the output of workers, as a result of a deficient nutrition.

A regional comparison made by the dietetic section of the Institute of Nutrition for Central America and Panama (INCAP) in 1962, on the deficiencies in nutrition relative to the minimum diet recommended by the Institute, showed that in urban areas the food intake lacked the necessary calories, proteins and vitamins. Furthermore, as can be seen from table 10, comparisons for 1962 between wages observed in the present survey and the costs of the minimum INCAP diet for a family of two adults and three children (reduced to a coefficient of 3.9 normal diets), show the impossibility of following the diet recommended because of the lack of purchase power of wages. In Salvador, Honduras and Nicaragua the total wage of a worker is not enough to buy the food which constitutes this diet at market prices. In Costa Rica and Guatemala, if the worker bought the food, he would be left with 1.70 and 0.74 Central American pesos respectively,

Table 10

**CENTRAL AMERICAN ISTHMUS: COMPARISON BETWEEN THE COST OF THE THEORETICAL MINIMUM
DIET AND THE WEEKLY WAGE
(Central American pesos)**

Country	Wage ^{a/}		Cost of the theoretical minimum diet b/		Weekly difference	
	Basic hourly wage	Per week c/	Per person	Per family consumption unit d/	Per person	Per family unit
Costa Rica	0.254	12.192	2.653	10.479	9.539	+ 1.713
Salvador	0.210	11.760	3.031	11.972	8.729	- 0.212
Guatemala	0.222	12.432	2.961	11.696	9.471	- 0.736
Honduras	0.271	13.008	3.409	13.466	9.599	- 0.468
Nicaragua	0.202	9.696	2.660	10.507	7.036	- 0.811 ^{e/}
Panamá	0.536	25.728	3.570	14.102	22.158	+11.626

Source: For wages: ECLA Survey on productivity and costs of production. For diets: data from the Institute of Nutrition of Central America and Panama (INCAP), 1962.

Method of computations:

- a/ The wages correspond to those of an industrial worker employed for one normal week.
- b/ To standarize costs, the theoretical diet calculated for Salvador by INCAP, was used as a basis for all the countries and to it were added the prices in each country obtained from the respective General Statistical and Census Offices.
- c/ The weekly wage was obtained by multiplying the hourly wage by 48 hours for Costa Rica, Honduras and Panamá, and by 56 hours (including 8 hours on Sunday) for Salvador and Guatemala.
- d/ The consumption unit used, taken from the survey in Salvador on family budgets, was 3.95 and was calculated assuming the family unit to be made up of: father, mother, one son between the age of 11 and 15, one daughter between 7 and 11 years and one son between 4 and 7 years. For consumption capacity, the following scale was used: Up to the age of 4: 15%; from 4 to 7 years: 40%; from 7 to 11 years: 75% and from 11 to 15 years: 90%.
- e/ In Nicaragua, taking into consideration the Sunday pay from October 13, 1963, the difference per family unit was + 1.224. But since that time the prices of food have also increased.

/with which

with which to pay for lodging, clothing and essential expenses, including emergency expenditures, which, according to the statistics, absorb 45% of wages in Salvador and 55% in Costa Rica. Though they are only approximate, these figures give an idea of the great number of working families living in really precarious conditions.

The resulting undernourishment of the workers affects their health and reduces their output as well as their physical resistance. To this can be attributed many of the industrialists' complaints concerning the apathy of their workers, their carelessness and their frequent absences because of sickness, or without justification.

g) The purchasing power

Low wages influence the purchasing power of the workers. It has been seen that the wage is not even sufficient to fulfill the dietary needs of the worker's family, which cannot follow the minimum diet recommended by the INCAP. Even less does it allow them to pay for lodging and clothing. Without mentioning the social consequences of the situation, this fact means that the worker does not have at his disposal enough money to buy essentials, at the time when the industries in the Isthmus are beginning to produce and put on the market direct consumption products which are increasing in number, quality and variety. For these to be absorbed, an increase in income of the direct consumers of the region is required. Otherwise the regional market will rapidly reach complete stagnation, followed by an acute industrial crisis, which would then endanger the stability of the whole region. This is another reason for raising the income of the working population, the only way of increasing the demand for manufactured products. Industrial workers and their families constitute a minimum of half a million persons in a population of 12 million, but an increase in the purchasing power of this portion of the population must be considered an important factor in raising the consumption capacity of the region and in using the existing industrial equipment at a profitable level.

/Consequently

Consequently, both the inadequate standard of living as well as the very low purchasing power of the working population lead inexorably to the problem of raising wages.

It remains to be seen whether this can be done without impeding economic development through increased production costs; to do this, it was necessary to find out whether there was any positive relationship between higher wages and higher productivity.

h) The relation between high wages and productivity

The results of the survey with reference to productivity present a theoretical and practical interest which is not circumscribed to the region. From the theoretical point of view, because until now no detailed studies of this type seem to have been made on the subject, as it had not been possible to obtain data directly from the accounts of the enterprises, thus permitting valid comparisons; and from a practical point of view because, when facing the doubts encountered in all the countries as to the possible incidence of labour costs on production costs, it is very important to have knowledge of the mechanisms which determine the levels of productivity, and of the role played by the various physical and human factors which must be taken into account.

In first place the regional comparison referred to the competitive position of each of the six countries relative to the other five. With this aim industrial productivity was studied, first comparing unit production times per man-machine group with the corresponding labour costs relative to the 18 indicator products, manufactured in the six countries; secondly, production costs were studied on the basis of their components. As an example, tables 11 and 12 as well as diagram 4 show the regional comparison of the factors mentioned above, for the cotton spinning industry, on the basis of a production unit of 1 kilogram of natural English carded cotton (No. 16).

Table 11

COTTON YARN: PRODUCTIVITY AND UNITARIAN COST OF PRODUCTION

(Central American pesos)

Country	Productivity (Number of man-hours) ^{b/}	Cost of one working hour ^{b/}	Cost of labour (1) x (2)	Cost of manufacture	Cost of production
	(1)	(2)	(3)	(4)	(5)
Costa Rica	0.194	0.325	0.063	0.810	0.889
Salvador	0.433	0.309	0.134	0.798	0.861
Guatemala	1.063	0.252	0.268	0.901	0.967
Honduras	1.198	0.292	0.350	0.970	1.010
Nicaragua	2.702	0.162	0.438	1.114	1.232

^{a/} Unit of production: One kilogram.

^{b/} Referring to workers and foremen.

In second place the comparison then referred to the problem of productivity considered from the point of view of the regional units which make up the Common Market. For this purpose it was tried if there was a correlation between unit production times and labour costs per hour, as well as between unit production times and the quantities produced. It was found that in the majority of cases the highest production cost coincided with the highest labour costs. On the other hand, it was not possible to draw any conclusions about the relation between production time and quantities produced. Similar tables and diagrams have been drawn for each of the other indicator products selected for the survey. In graphic I can be seen the correlation which exists for the year production in Central America, on the basis of the units of production mentioned above (with a coefficient of determination of 0.9047).

Finally, an attempt was made to adapt the well-known Cobb-Douglas production function to the situation in the Isthmus. The following conclusions were drawn:

Table 12

COTTON YARN: STRUCTURE OF THE COST OF A UNIT OF PRODUCTION, 1962

(Percentage)

Country	Cost of production (Central American pesos)	Total	Labour	Raw materials	Other manu- facturing costs	Adminis- trative costs
Costa Rica	0.889	100	7	66	19	8
Salvador	0.861	100	16	67	10	7
Guatemala	0.967	100	28	56	10	6
Honduras	1.010	100	35	54	7	4
Nicaragua	1.232	100	36	43	11	10

a/ Unit of production: One kilogram.

i) The highest labour costs per hour frequently coincide with the highest productivity. In such cases high wages seem to be related to the various dynamic factor within the enterprise which increase productivity and act as a compensating force on production costs.

ii) The labour cost per hour is not a determining factor in the cost of production.

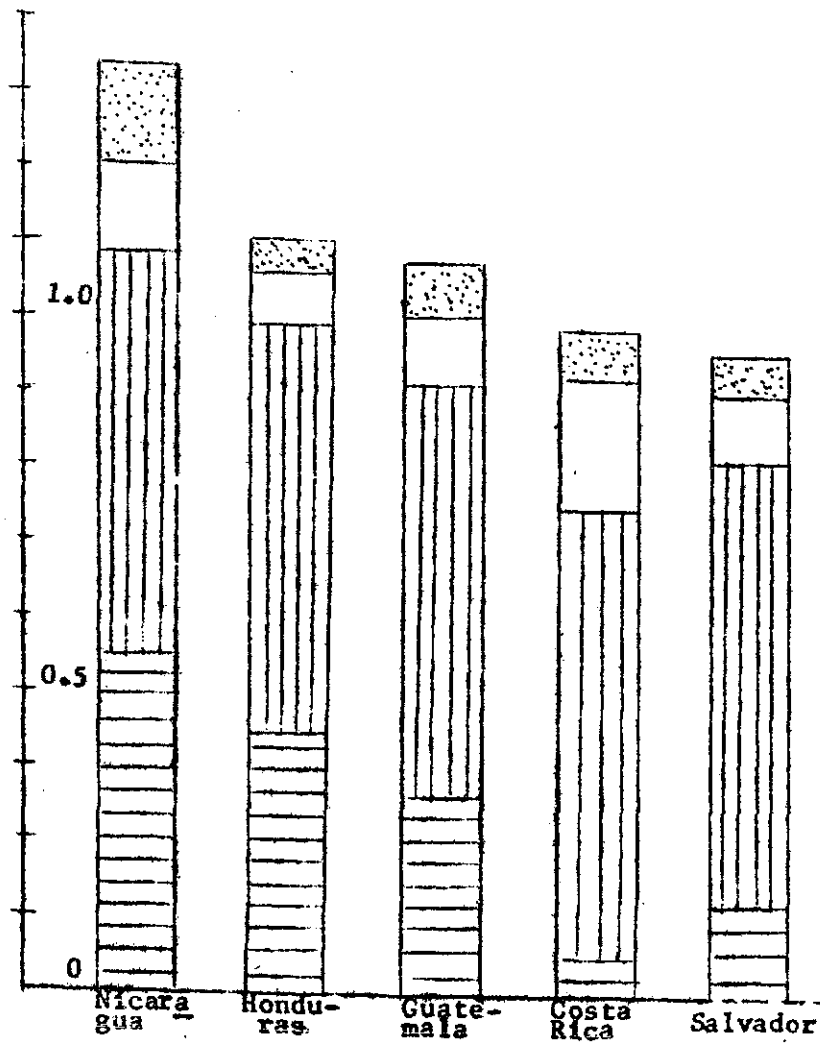
iii) High wages - considered according to the hypothesis that they most not be lowered - do not have the negative incidence on production costs which is often attributed to them. The conclusion has been drawn from the analysis that the decisive element determining labour costs is the unit production time, which must be considered as being the exact measure of productivity in the fabrication of the product.

iv) The factors determining the level of productivity of the man-machine group, within regional industrial competition are: a) the degree of organization of the enterprise; b) the degree of organization and the rational use of labour, machinery and raw materials; c) the level of output per worker.

Diagram IV
CENTRAL AMERICAN ISTHMUS: COSTS OF PRODUCTION OF COTTON YARN

E/CN.12/OCE/335/Rev.1
TAO/ALT/51
Page 54

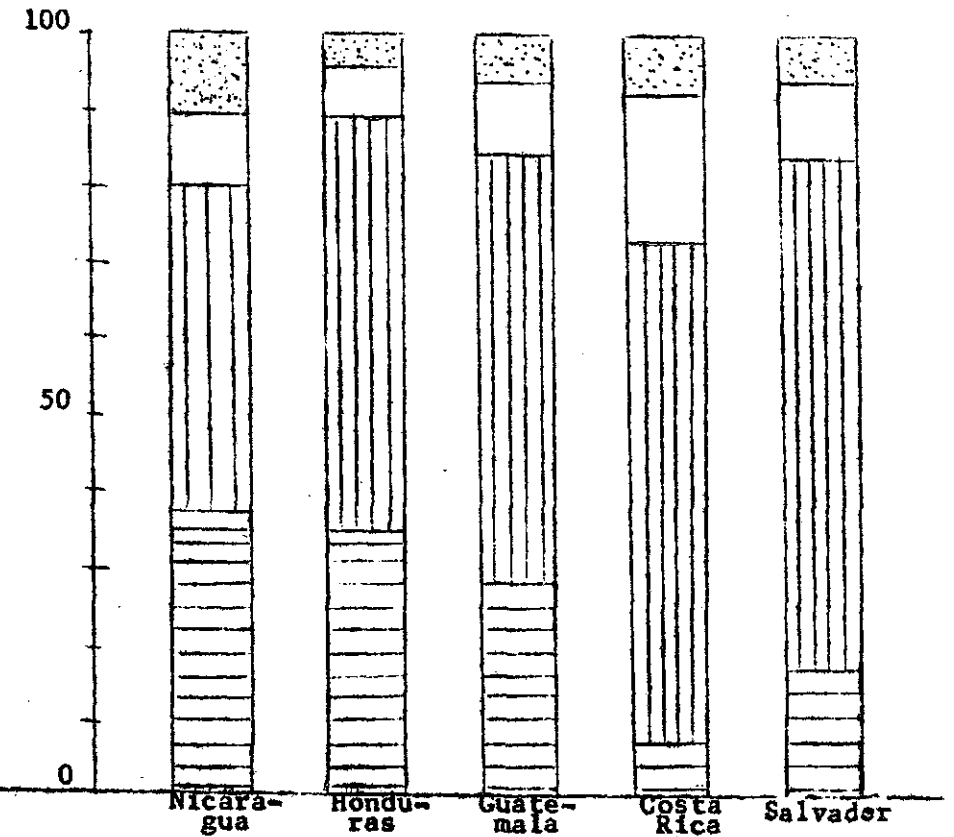
Central American pesos



Costs of:
Labour
Row material
Others
Administration



Percentage



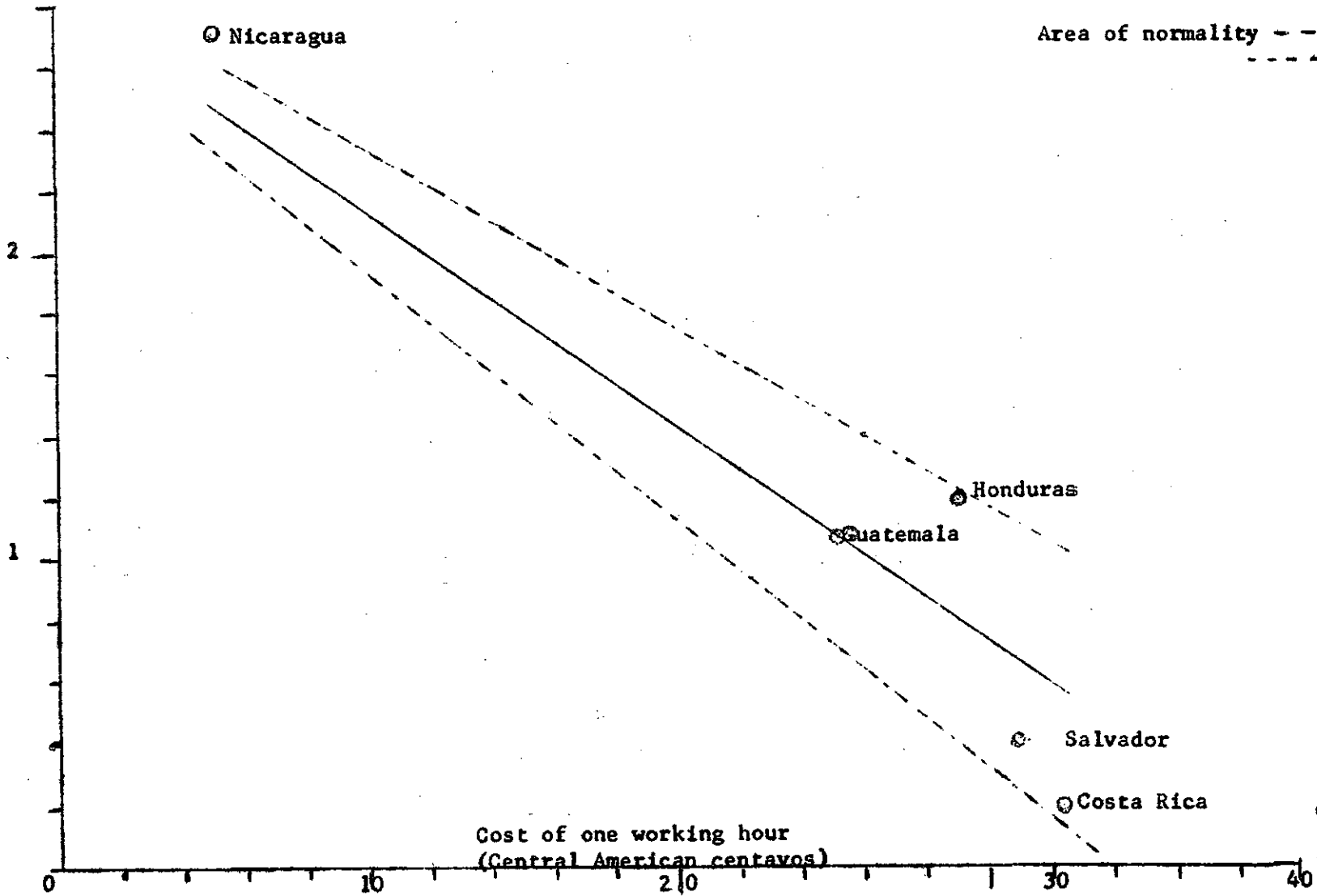
Graphic I

CENTRAL AMERICA: COTTON YARN. CORRELATION BETWEEN THE NUMBER OF MAN-HOURS PER UNIT OF PRODUCTION AND THE COST OF ONE WORKING HOUR

Number of hours per unit of production

Regression line _____

Area of normality - - - - -
- - - - -



/Individual

Individual output is closely related to the interest the worker shows in his work, as a conscious person fulfilling a useful task. For this reason the relations between employers and workers must be based on mutual trust. The enterprises must employ foremen who know how to maintain good relations with the workers; they should also try to bring together the personnel from time to time to explain to them the objective pursued and the modifications in organization made necessary by the Common Market; they should establish equitable rules for promotion and systems of payment, covering incentive payments and the advantages derived from long service in the enterprise. The cooperation of a qualified social worker should be considered of major importance for the development of trust in relations between the employers and workers of large enterprises.

i) The position occupied within regional competition by the countries of the Isthmus for their production costs and their production time

The comparison of the six Isthmus countries in regional competition has permitted the establishment of the following classification based on the answers to the questionnaire, which takes as a point of reference their respective positions at six different levels of productions costs and productivity (based on the ones of the indicator products). Salvador has the highest number of indicator products with the lowest production cost (8), followed by Guatemala (4), Costa Rica and Panama (2), Honduras and Nicaragua (1).

In the same comparison with reference to the three lower levels of production costs Salvador remains top (15), followed by Guatemala (14), Costa Rica (10), Honduras (6), Nicaragua (5) and Panama (4).

Rigarding the production times, in the first three of the six levels of "tests" the shortest correspond to Salvador (14 products), followed by Guatemala (11), Honduras and Panama (8), Costa Rica (7) and Nicaragua (6). In this classification Panama occupies an intermediate place from which it can be seen that this country may make important progress in regional competition.

It must be stressed that these results could have been different if it had been possible to make the comparison with the 25 products originally selected. It can, however, be shown on the basis of the comparison adopted that Panama, Nicaragua and Honduras are in a less favourable position than the other three countries of the Isthmus in regional industrial competition, and that the effort to reduce their production costs and increase their productivity will have to be greater.

In addition, in a more general sense, it was observed that the lowest production costs do not as a rule coincide with the highest productivity (the shortest unit production times): only 4 products in Guatemala, 3 in Salvador, 2 in Costa Rica, and 1 in Panama. This shows that almost all the enterprises which are in an inferior position in regional competition, will have to make a double effort so as firstly, to reduce production costs by tackling the factors which raise them and, secondly, by reducing their unit production time.

Finally, in each of the countries, some of the indicator products which were classified in the three lowest levels (corresponding to the highest costs or to the lowest productivity), will have to keep out of regional competition if the enterprises which produce them do not make a detailed analysis of their respective structures and of market conditions, and if they do not effect a radical reorganization and try to specialize in the making of some well-selected product which really satisfies regional demand. It is, however, essential that enterprises with excessive production costs should try to identify the reasons for this, in order to find a solution.

j) Possible modifications of the relative importance of wages, systems of retribution and social charges

The ministers of economy suggested that the study consider the possibilities of making modifications in the relative importance of the components of labour costs: basic hourly wages, special payments systems and contributions which the enterprises are required by law to social

security, as a mean of increasing productivity. The study has shown that for workers the system of hourly wages is the most common in all the Isthmus countries. Nevertheless, in certain industries - such as shoes and clothing - payment per piece is frequent. The system of adding incentive payments to basic hourly wages is rarely practiced in spite of the great advantages it entails when the rate of incentives is fixed according to equitable procedures acceptable to employers and workers or their representatives. It definitely increases the productivity and remuneration of the workers as they have to make an effort to surpass the basic established level of production. Therefore, it would be useful to add as many incentive payments to the basic hourly wage as possible in the activities best suited for this kind of recompense.

The survey has also shown that the cost of social security and wages are so low that it is impossible to think of diminishing their relative importance by reducing the present cash payments made to workers.

k) Costs of production and specialization

The study shows also that in countries where enterprises make a single selected product, costs of production are lowest; thus it would be advisable to try to develop specialization at the regional level.

l) The real problem facing manufacturers

The appearance of new national outlets for products, brought about by the Common Market, poses the problem of the industrial organization of each country with a view to regional needs as regards productivity. Manufacturers will have to give up their traditional systems of production, and in order to strengthen their competitive position they will have to adapt to the requirements of the regional market. In general terms, the accelerated rhythm of industrialization in the countries of the Isthmus and its spontaneous character (till now based more on intuitive decisions than on studies of the market and its needs) compels manufacturers to make a rapid adaptation to the new situation that lies before them. They

now have to work out operational plans that will have to be developed as enterprise policies so as to obtain the maximum efficiency from the equipment and personnel at their disposal. The great possibilities have already been shown of improving the organization of the enterprises, and it has been seen that many costs of production are often not reduced, sometimes because of insufficient technical knowledge, lack of few market studies and of evaluations of demand based on them, and inadequate rational organization of the process of production; thus, the machinery and raw materials are often not used in the best way and workers are insufficiently trained. In the great majority of the enterprises there are so many aspects in which important improvements could be made that almost all could take advantage of them in order to gain advanced positions in regional competition. The main problem is that of productivity and to solve it the manufacturers must know: a) the status of their enterprises; b) their prospects within the Common Market and c) the means by which they can remedy any deficiencies they can detect.

m) The productivity centres and industrial analyses

The part of the survey on industrial productivity has shown that the equalization of the effects of social charges, when it is considered necessary by a manufacturer, must be obtained by increasing productivity and acting on the factors which reduce unit production time, and not by reducing labour costs which only constitute a small proportion of the total cost of production.

With this aim the manufacturers of the Isthmus must be able by means of technical analysis to work out the condition of their enterprise and the ways of increasing productivity. Analysis of this kind are also of greatest national interest in reinforcing each of the national economies within the Common Market, because they favour the optimum use of the industrial equipment at the disposal of each country.

This type of activity has been understood by the governments and by the national employees' associations. In all the countries of the

Isthmus the governments have cooperated with industrial associations in the creation of centres or institutes of productivity, which at the beginning were also supported by the Agency for International Development (AID). Until now the main activity of these centres has been the organization of training courses for the higher and technical staff of the enterprises. Since 1962, the International Labour Office has supplied experts to give these courses. At the request of a few industrialists, the ILO expert in productivity made analysis in Nicaragua which led to a notable increase in the productivity of their enterprises. Also, the "Central American Industrial Research Institute" (ICAITI) has for some time been making studies on certain industries as the consultant for the "Joint Planning Mission for Central America". The ICAITI seems to be the indicated organism to coordinate all the suggestions referring to industrial productivity at a regional level.

The first recommendation suggests measures for compensating when necessary the possible negative effects of social charges on the cost of production in industrial enterprises, while allowing them to obtain a suitable increase in productivity.

n) Possibilities for industry to absorb higher wages

It has been seen how important it is for the progress of the Common Market to increase the purchase power of the labour force and to raise their level of living. This double goal can be obtained, either by reducing the prices of manufactured products made for direct internal consumption, or by moderately raising wages in such a way as to increase the purchase power; alternatively the two procedures can be combined.

This report has only studied the possibility of the Isthmus countries' absorbing higher wages into their production costs, from now on or as the Common Market develops, with the resultant increase in activity raising the profits for the industrial enterprises.

It must be remembered that in this study it has not yet been possible to gather data suitable for comparison, on the importance of

invested capital, including that obtained in borrowing form by the enterprises, or on taxes, which must necessarily be deducted from the margins between wholesale prices and production costs, to evaluate the importance of profits really obtained in 1962. Judging by the facts found in the survey concerning the size of these profit margins, it seems that there could be a possibility to increase wages, and that it would be specially desirable for those products where unit labour costs represent a very small percentage of the sales price.

Nevertheless, the general problem of increasing wages in the countries of the Isthmus must not be considered from an empirical or partial point of view. It must be solved by a system, which relates the level of remuneration with that of productivity, and makes an increase in the latter corresponding to an increase in purchase power. In this way, the worker will be able to participate in the advantages of the increase in productivity. The progressive expansion of the markets, the development of specialization and the general application (everywhere possible) of methods of remuneration with incentives, will have to result in the lowering of unit production costs and in the possibility of absorbing the general wage increases on the basis of a regional policy established by the Common Market authorities. This policy will necessarily have to be based on a close relation between increases in wages and the growth of national income, because only in this way, could the increases be easily assimilated, without causing inflation or widening the disparities which already exist between the countries.

4
o) Productivity and employment

The increase in the productivity of the enterprises must be directly related to a better use of the human resources at the disposal of the regional economy. Therefore, the problem of productivity is directly related to the proper use of that part of the regional population which can be employed, thanks to the creation of new jobs, and its solution should have the effect of raising standards of living and increasing the purchase power. Only under these circumstances will one be able to talk of an effective regional productivity.

/The necessary

The necessary progress of employment could, however, be impeded by an excessively rapid mechanization of the existing enterprises, caused by the regional needs and the establishment of new enterprises, whose size and automatism would not permit the absorption of a sufficiently large new labour force, or it might be impeded if it were not possible to obtain in the progressive decentralization of industry towards rural regions, which should introduce the economic development programmes. As the measures a country could unilaterally adopt on these subjects, on the national level, would have repercussions on its capacity for competition with the others in the region, it is important to start by establishing, at the regional level and after the necessary studies, an employment policy closely related to mechanization and productivity. This refers to what was said in this study as to the value of establishing a production function, determining the characteristics of the enterprises in the region. The third recommendation deals with the execution of studies of this kind.

p) The socio-economic regional development programme, ensuring the participation of the workers in the benefits resulting of the productivity growth

The ministers of economy of the Central American countries asked the expert to recommend measures which could be taken to "ensure that the workers obtain a share in the benefits of higher productivity, in the way best suited to stimulate the growth of a skilled and stable labour force".

These measures are related to remunerations, social security, social work and social services, housing for workers, vocational training and the placement of workers.

Just as each of these measures to be adopted, considered separately, must constitute a particular form of participation by the workers in the advantages of productivity, to the increase of which they contribute, all these measures taken together should assure them of a well balanced participation, from both an economic and a social point of view. The purchase power of the workers should be raised through an increase in wages; this would be the quickest way of increasing their participation. But by

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temselves, increased wages do not achieve all the proposed objectives, because they do not ensure the availability of certain services necessary to raise levels of living. These services are supplied by social security, "social work" and social services, which only a community can organize: the prevention and cure of diseases, hygienic housing and an increase in welfare. The lower the level of wages, the greater the importance of these services. In addition, the hope that the suggested measures will allow the growth of a qualified and stable manpower, makes it essential to facilitate the admission of workers to vocational training centres and to create employment offices which would mediate between the demand and supply of labour.

The measures suggested by the expert are also characterized by their economic interdependence. For example, a social security policy can only reach its maximum efficiency if it is closely related to an appropriate progressive wage policy, which, in turn, depends on labour promotion, based on the availability and quality of the vocational training and on the existence of suitable jobs corresponding to the different qualifications. In the same way, large scale improvement of professional levels depends on a general system of progressive wages and of placements, which allows the worker to use soundly the new training he may have acquired.

In short, for the workers to be able to participate in the benefits of productivity, it is necessary to rectify the deficiencies mentioned in this study, by means of government intervention. The interdependence needed implies a coordination which only the public authorities can ensure within the framework of an adequate regional policy. Only they can obtain the optimum use of human resources in the region, which can contribute to increase the national income, and to prevent the adoption of unilateral measures emphasizing the differences in the social charges, which are intended to be eliminated in the various countries.

The governments' obvious role suggests the need to adopt a realistic and constructive programme of regional socio-economic development, whose drive will contribute to economic progress and which will show the best

/way to

way to integrate the labour force in the Isthmus. This can be done in the various countries by a progressive consecution of a uniformity of working conditions of wages and of standards of living, based on the measures which the organisms of the Common Market consider compatible with the actual economic situation.

The programme could be conceived within a simple framework which would bring the following objectives within reach: a) the set up for each of the six fields suggested above, of a regional policy acceptable to the Common Market countries; b) the establishment of stages of development in the form of successive partial programmes; and c) the determination of the means of regional coordination.

What are the prospects for the above mentioned programme which suggests important advances, especially as regards vocational training, labour exchanges and minimum wages?

Judging by what the expert was told at the end of 1963 by the Ministers of Labour and Social Security of the Central American countries and by the Minister of Labour and Public Health of Panama, the situation was as follows: As regards the vocational training, Costa Rica, Salvador and Guatemala had adopted a policy for apprenticeships; Salvador, Guatemala and Nicaragua had established a national workers training policy, but neither Honduras nor Panama had begun any work of this kind.

Where minimum wages were concerned, every one agreed with the idea of putting the regulations of the Labour Code into practice where it had not yet been done. Technical problems were discussed and it was hoped that these would be solved by regional cooperation in Honduras where the possibility of a regional wages policy was favourably received. In Salvador there was hope of an association between economic development and wage increases. Honduras also stressed the need to define a wages policy related to the development programmes. The Government of that country encouraged collective agreements as one of the means of allowing the workers to obtain higher wages as productivity increased.

It was clear from the opinions heard that official circles were interested and willing to give due importance to a policy coordinating

minimum wages, vocational training and employment in the hope of cooperating in a regional drive to increase purchasing power within the framework of the programmes for economic development.

Therefore the Second Recommendation suggests the adoption of a regional socio-economic development programme facilitating the optimum use of human resources and the participation of workers in the benefits resulting from an increased productivity. In the Recommendation the aims and methods for this kind of programme are suggested.

q) Complementarity of economic and social development

Finally, one of the most important conclusions of this study must be emphasized: the complete interdependence between the economic and social aspects of industrial development of the region.

As the analysis of the factor in the costs of production was proceeding, it brought out the importance of social factors within the manufacturing process and has shown that the most positive economic results are obtained when social welfare is achieved to the extent most compatible with the level of development of the country; the existence was shown of a positive correlation between high wages and high productivity.

Thus it can be seen that a policy of higher wages is not only needed to ensure a satisfactory standard of living for the workers and their families but also to a great extent for the development of an internal purchasing power which is essential for the regional market.

The increase in social charges, still slight, should not only be considered as an indispensable factor in the fight against poverty, but also as an effective mean of preserving the health of the workers and of facilitating their productivity and stability.

Productivity is highest when it becomes a result of the worker's trust in the machine which, at the same time, he must serve and understand.

The market grows when the remuneration for work increases as a function of higher productivity and acts positively on the purchasing power which in turn contributes to economic expansion.

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Thus the study based on practical experience has brought out the highlights of the situation as it was in 1962, has pointed out the deficiencies and has suggested possible solutions. The facts observed in the Central American experience coincide with the principles of the United Nations policy as regards the mutual dependence of economic and social development, one needing the other; for this reason it is essential to advance both aspects in a constant and balance manner.

The Central American Common Market in its initial phase has centred its efforts on the economic aspects of development. Now the time has come to consider the social aspects of this development because these will allow for the consolidation of the economic progress attained so far and serve as a point of departure for new advances in the achievement of the principal objective of the regional market: the raising of standards of living of the population of the region, within a process of harmonious and uninterrupted social and economic development.

Chapter IV

RECOMMENDATIONS

The expert made the following recommendations:

First recommendation: Measures to compensate the impact of social charges on labour costs and prices of industrial products, which would contribute to the development of the regional market.

Second recommendation: Measures to assure the workers of a share in the benefits of higher productivity in ways best suited to stimulate the growth of a qualified and stable labour force.

Third recommendation: Measures that the Committee for Economic Cooperation of the Central American countries could adopt to effect further surveys and studies on productivity.

FIRST RECOMMENDATION

Measures to compensate the impact of social charges and labour costs and prices of industrial products, which would contribute to the development of the regional market

It is suggested that the governments adopt the following measures which tend to help enterprises with difficulties in regional competition to determine the causes of these difficulties and to remedy them:

1. Increase the activities of the National Centres or Institutes of Productivity by creating specialized departments which industrialists could use to obtain private and confidential analysis on the following aspects of the operation of their enterprises:

a) Commercial policy and production programmes based on the possibilities of the Common Market;

b) Industrial organization and especially rational use of labour, premises, equipment and raw materials;

c) Labour management relations with special reference to the means of perfecting the technical capacity of the personnel, finding equitable

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methods of remuneration and procedures favoring the establishment of trust in relations between the management and the personnel of the enterprise.

2. Supply the National Centres and Institutes of Productivity with the financial and technical means of effectively realizing the activities suggested in this recommendation.
3. Obtain the cooperation of international organizations which, for as long as necessary, would send experts in the fields in which these Centres or Institutes were interested. They would also grant fellowships for the training of national technicians in the higher centres of education of industrialized countries, so that they could then occupy the positions left vacant by the foreign experts.
4. Secure the presentation to ICAITI of the annual reports of the Centres or Institutes of Productivity on the productivity of the enterprises in which they themselves make recommendations for the improvement of the services supplied.
5. Ask ICAITI to:
 - a) Encourage an increase in the exchange of regional information by the National Centres or Institutes of Productivity, so that they can all benefit from the technical experience acquired by each and thus make the best use of regional resources; and
 - b) Include in the annual report to its governing body an account of the progress made in the field of industrial productivity at regional and national levels, and make recommendations concerning objectives which should be pursued.

SECOND RECOMMENDATION

Measures to assure the workers of a share in the benefits of higher productivity in ways best suited to stimulate the growth of a qualified and stable labour force

It is recommended:

1. That the Central American Economic Council and the Council of Ministers of Labour and Social Assistance should together draw up a Regional Socio-economic Development Programme to direct national policies, in the aspects

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mentioned below, so as to achieve the objectives to be determined at the regional level, and by the procedures considered most appropriate.

2. That the regional programme should be a flexible framework of socio-economic cooperation between the countries.

1. Aspects covered

a) Wages

Adoption of a regional wages policy based on the following principles:

- i) Approval of a progressive regional scale of wages for workers and foremen, based on levels of professional qualification and time of service in the enterprise;
- ii) General adoption of the minimum wages determined upon - in national currencies - on the basis of regional urban and rural family budgets to be established by the Institute of Nutrition for the Central American Countries and Panama (INCAP);
- iii) Diffusion of equitable systems of remuneration with special reference to those with production incentives.

b) Social Security

Adoption of a regional policy considering Social Security as one of the instruments for the redistribution of wealth and especially as a mean of participation for the workers in an increased productivity. From this point of view the achievement of the following objective is suggested:

- i) Uniform an generalized protection for the benefit of all industrial workers gradually extending to social security systems to include all risks; by risk, by categories of persons protected and by geographical zones; also the fixing of priorities according to uniform criteria;
- ii) Adoption of a regional system of reciprocity for workers migrating from one country to another within the Common Market, based on the Model Agreement proposed by the ILO;

/iii) Coordination

iii) Coordination of the following aspects of social security;
a) unification of the administrative systems; b) unification of the basic statistics in accordance with the ILO's minimum statistical plan for social security; c) as great a unification of the accounting systems as is permitted by the characteristics of each individual system; d) determination of the cost of social security by the method established by the ILO.

iv) Planning of Social Security Investments in agreement with the general planning of economic development when long-term investment funds are available.

v) Participation by the State in the financing of social security with an amount fixed in relation to the level of national income and also its participation in assuring workers of the benefits of productivity.

c) "Social Work" and Social Services

Adoption of a regional policy which considers "social work" and social services as a mean of raising the standard of living of the workers and their families, increasing the workers' sense of responsibility, improving their qualifications and giving them greater stability.

i) Introduction of "social work" into the economic development programmes in developing regions to facilitate the integration into the new social atmosphere of the workers and their families arriving from rural areas, by installing social services in the Social Centre and Community Development Centres of these regions;

ii) Compulsory establishment of a social service under the responsibility of a qualified social worker in industrial enterprises employing 100 or more workers;

iii) Introduction of social services for the welfare of the workers within the enterprises: infirmaries, dining rooms, canteens, etc.;

iv) Preparation in the Schools of Social Work of the qualified personnel necessary for the achievement of these objectives.

d) Housing for workers

Adoption of a regional policy for the construction of low rent housing which contributes to the raising of the workers' standard of living, and

/stimulate

stimulate economic development by promoting the mass production of standard construction elements; especially important in this context are:

i) The elaboration of model programmes for low rent housing construction, adjusted to a regional housing policy for the elimination of slums and the construction of new homes in the industrial areas;

ii) A substantial technical and financial contribution by the State, towards the fulfillment of these programmes, as a mean of securing worker participation in benefits of productivity increases, with the cooperation in this of the National Housing and Social Security Institutes, of cooperative housing societies and mutual and self-help associations, social centres, etc.

e) Vocational training

Adoption of a regional policy for the professional training of apprentices, workers and foremen, based on the long term provision of labour needs and the degree of qualification required for the regional and national development programmes; this ought to be done especially through:

i) The progressive establishment in the last year of primary school of a 6 month elementary technical training course;

ii) The creation by the Governments of teaching and professional training courses for apprentices, workers, employees, foremen and technicians and especially of intensive training courses for workers.

f) Employment

Adoption of a regional employment policy based on some kind of regional mechanism which will permit determining the needs and availability of manpower, by degree of qualification and by countries, and which will relate, through the employment offices, the demand and supply of labour, taking into account the objective of free circulation of workers among the Common Market countries.

2. Mechanism for the implementation of the programme

a) Regional responsibilities

The responsibility for the programme at a regional level would be with the Economic Council and the Labour and Social Assistance Council of ODECA, the two councils working together would then have to take decisions on:

i) The determination of a regional policy in the above mentioned six socio-economic spheres of action, making up the programme and the adoption of measures made necessary by the development of the Common Market;

ii) The proportion of the different national budgets which each Government should be subjected to dedicate during the period considered, to the realization of the Socio economic Development Programme. This amount would be based on the available information concerning increases in the national incomes and productivity, as well as on the general economic position of the region;

iii) Recommendations made to the Government, based on the same information as to the percentage increase in minimum wages which it would be convenient for the government to establish in their countries, both to allow the workers a share in the increased productivity and to increase national and regional purchasing power.

iv) The analysis of the annual report submitted by the Governments of the countries on the progress of the Programme in their respective national territories, recommendations on the orientation to be given to the programme.

b) National responsibilities

The execution of the programme at the national level would be entrusted to each Government. It would require:

i) The adoption of the measures necessary to place the programme under the responsibility of some national organism which would ensure its coordination with the authorities of the Common Market;

ii) That the

ii) That the incorporation of the programme into the National Plan and into the National Budget, on the financial side, be entrusted to the administration.

iii) The establishment of a way of transmitting periodic information to the Economic Council and to the Labour and Social Security Council.

THIRD RECOMMENDATION

Measures that the Committee for Economic Cooperation in the Central American Isthmus could adopt to effect further surveys and studies on industrial productivity and development

It is recommended that the Committee for Economic Cooperation in the Central American Isthmus should take the initiative for securing the following studies:

1. A new survey on industrial productivity (which could be made in 1968 on the situation in 1967) referring for purposes of comparison to the indicator products selected for the 1962 survey, with new representative products added, whose production began in the six countries after 1962.
2. A study on the optimum size and degree of mechanization of the industrial enterprises in the region, as well as on the decentralization and specialization of the enterprises in connexion to a policy of employment and workers' purchase power.

Appendix I

TEXT OF THE REQUEST FROM THE GOVERNMENTS OF CENTRAL AMERICA
TO THE ECONOMIC COMMISSION FOR LATIN AMERICA

Post title: Economic Analyst—Equalization of Social Charges

Duties: In the collaboration with the Central American Governments, the Economic Commission for Latin America, Mexico Office, and the International Labour Office the expert is expected:

1. To analyze the relationships between productivity, labour costs, and social charges and benefits in selected industries (those producing for a national or regional market) in the Central American countries. This analysis should take into account all factors influencing the costs and productivity of labour. It should deal with the implications for productivity and welfare of alternative compositions of labour costs (e.g., proportions represented by hourly wages, special payments and services legally required of industries). It should also assess the present and future capacity of the selected industries to support higher labour costs, whether in the form of wages or of social charges, on the basis of new conditions of production, specialization and increase of real productivity derived from the Central American Common Market.
2. To make recommendations concerning measures that might be adopted by the Governments so as to:
 - a) equalize the impact of social charges on labour costs and prices of industrial products, to the extent that such measures may contribute to the expansion of the regional market;
 - b) insure that the workers share in the benefits of higher productivity in ways best suited to stimulate the growth of a skilled and stable labour force;
 - c) keep to a minimum the administrative costs of social programmes relating to industry and simplify the administrative procedures faced by employers and workers.

Appendix II

LIST OF PRODUCTS SELECTED AS INDUSTRIAL INDICATORS FOR THE REGIONAL COMPARISON

Type of production	Indicator product	Quantity and packing
1. Sugar	White plantation sugar (similar to refined) 99-12 percentage of polarization	1 quintal (46 kilogrammes) coarse cotton sacks
2. Hydrogenated margarine		100 pounds (114 grammes) 4 onz. packages in tinfoil in 1 lb cardboard boxes
3. Beer	Pilsen type	1 box containing 24 bottles of 12 onz. each
4. Cigarettes	Regular size, 100% national tobacco (processes, dried in the sun or in shade and oven)	1 packet containing 10 packages with 20 cigarettes in each
5. Cotton yarn	No. 16 English-natural raw carded	1 kilo
6. Woven cotton	Raw cotton cloth, 160 gr/m ² , woven with No. 18 English thread for warp and No. 16 English for weft, 50 x 60 threads to the inch (2.54 cm) 30 inches wide (0.762 me)	100 metres
7. Knit vests	Knit vests 100% knit Rib, carded, bleached, T-shirt type, size 40, 12 needles per inch.	1 dozen vests, in cellophane or polyethylene
8. Shoes	Blucher-type shoes, plain leather, sewed between the soles, sizes 38 to 41, ordinary national leather, smooth finish, cowhide	1 pair per cardboard box
9. Men's dress shirts	White poplin, long sleeves, semi-stiff collar, with pocket, simple button-up cuff	1 dozen shirts in celphane or polyethylene
10. Men's socks	Nylon stretch, 100% dyed, sizes 9 1/2 to 12, popular design	1 dozen pairs
11. Plywood doors	Wooden doors in cedar or pine (0.90 x 2.10, 1 3/4", 4 cms. thick)	1 door

/12. Paperbags

Appendix II (Conclusion)

Type of production	Indicator product	Quantity and packaging
12. Paperbags	Bags with square automatic bases (500 sheets of paper of 24 x 36 inches - 0.61 x 0.91 cms - weighing 30 american pounds - 13.6 kilos. To contain 1 lb.	1,000 bags
13. Plastic tubing	Polyethilene tubing, 1/2" in diametre - 1.27 cm - standard thickness.	100 metres
14. Edible vegetable oil	A difference is made between cotton oil and coconut oil	33 lb. tin (14,969 kilos)
15. Soap	Block of soap 90% tallow, 10% chlorine, plus 45% caustic soda and 30% silicate	100 half pound bags (0.227 kilos)
16. Paints	Oil paints, glossy for exteriors and interiors (1 gallon covers from 35 to 45 square meters	1 gallon tin (3.785 litres)
17. Synthetic detergents	For washing underwear and clothing, detergents for home use	100 boxes with 7 1/4 onz. (209.16 gr)
18. Cement blocks	Cement blocks 10 x 20 x 40 cms.	1,000 blocks or equivalent (8 cubic metres)
19. Clay bricks	Baked clay bricks 10 x 20 x 30 cm.	1m ³ (167 bricks or equivalent)
20. Aluminum windows	Aluminum windows without glass (0.90 x 1.306 metres)	1 window (1,170 m ²)
21. Soluble coffee	Express	Glass jar containing 8 onz. (0.325 litres)
22. Plywood	Sheet 32 feet (9.75 m). A difference is made between pine and cedar wood	1 sheet.
23. Matches	Wooden, box contains 45 on the average	Package of 100 boxes in wooden box
24. Portland cement	Type 1 ASTM 150-52060	1 sack 42 and half kilos or bags of draft paper
25. Iron or steel reinforcing bars	Bars of 3/8" thick (0.95 cm.) in iron or steel	30 bars in one quintal (46 kilos)