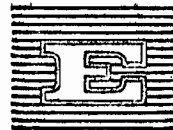


UNITED NATIONS



ECONOMIC  
AND  
SOCIAL COUNCIL



GENERAL  
E/CN.12/436  
25 April 1957  
ENGLISH  
ORIGINAL: SPANISH

ECONOMIC COMMISSION FOR LATIN AMERICA  
Seventh session  
La Paz, Bolivia  
15 May 1957

PROGRESS REPORT ON THE STUDY ON  
COFFEE IN COLOMBIA  
(ECLA/FAO Programme)

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### 1. Preliminary considerations

As stated in the separate document containing the findings of the ECLA/FAO Working Group's research on coffee-growing and processing in the Republic of El Salvador<sup>1/</sup>, the study in question was carried out in compliance with resolution 63 (V) adopted at the fifth session of the Economic Commission for Latin America.

Pursuant to the same resolution, negotiations were also initiated with the Government of Colombia and in particular with the Federación Nacional de Cafeteros with a view to the undertaking of a similar study. As soon as the preliminary arrangements had been completed, at the end of 1955, the ECLA/FAO Working Group entered upon its activities. Field work in Colombia had to be started immediately, before the report on El Salvador was absolutely complete, so that the coffee year 1955/56 could be covered. The postponement of the Colombia study to allow the ECLA/FAO Working Group to devote itself exclusively to finishing the report on El Salvador would have meant the loss of a year in following up the project deriving from resolution 63 (V).

As in the case of El Salvador, the technical direction of the study was undertaken by personnel attached to the ECLA/FAO programme, an economist, a statistician and an agricultural expert specializing in coffee problems being appointed for this purpose. These members of the ECLA/FAO staff were directly responsible for the programming and execution of all phases of the research, and spent over a year in visiting the remotest parts of Colombia's coffee-growing districts. The work of administrative co-ordination was assigned by the Federación Nacional de Cafeteros to a special adviser who also acted as a local technical consultant.

It must here be placed on record that the study could not have been carried out without the whole-hearted and energetic co-operation of the Federación Nacional de Cafeteros de Colombia. This organization made a generous contribution to the financing of the local costs of the survey, and lent members of its own staff to take part in the research.

<sup>1/</sup> See document E/CN.12/348.

## 2. Progress of the study

Preparations for the study on coffee in Colombia were begun, as was previously stated, at the end of 1955. The first task undertaken was the planning of the statistical sample, which was of the kind known as "sampling by areas". To this end, municipal maps were used for the identification of all the country's coffee-growing districts. The coffee zones in each municipality were classified in three broad categories, i.e., A: zones where coffee-planting was preponderant; B: those where a moderate amount of coffee was grown; and C: those producing little coffee. The territory corresponding to each zone and category was in turn sub-divided into sectors of some 10 square kilometres in area, to which numbers were systematically assigned. The resulting sectors totalled about 5,000, from which approximately 1,000 were chosen at random. In a second phase of the sample a similar random selection was made of groups of 15 farms in each of these sectors which were to be visited for the purpose of collecting census data. Replies to the questionnaire on productivity were to be obtained from only one farm in each sector, that is, 1,000 properties in all. After the personnel who were to take part in the survey had undergone a period of intensive training, designed to ensure that the information gathered had all the necessary validity, the task of visiting the farms included in the sample was gradually undertaken. This work began early in 1956 and continued until almost the end of the year, with the support of the large and efficient organization of the Federación Nacional de Cafeteros, which has agencies in every Department of Colombia. Hence it was possible to obtain the collaboration not only of suitably-qualified junior personnel but also of the agricultural experts attached to these agencies.

The questionnaire for the census sample was drawn up with a view to obtaining data on the total area under cultivation, yields per hectare, a break-down of the coffee-plantations by age, harvesting by month, production and re-planting during the last 3 years, crops grown for diversification purposes and other important points.

/The special

The special questionnaire for the study on productivity aimed at assembling annual data relating to the labour input in the various operations involved in coffee-growing and to its intensity **in** terms of man hours on coffee-plantations at both the productive and the formation stages; the number of man hours employed in the processing of the crop at the mills; the frequency of operations by months; the number of man hours used in transport; the amount of fertilizers and other materials applied; and the value of the plantations, constructions, improvements, mills and equipment.

In the same questionnaire, data on the area under cultivation and on production were also collected for the two most important crops other than coffee, together with information on the expenditure undertaken by the coffee-planter for improvement purposes; on wage levels; and on the prices received by the planter for his coffee crop and for the other principal products of his enterprise.

Other miscellaneous data were also recorded on such points as housing and sanitation services, composition of the family, demand for hands in crops other than coffee, and diet. As the questionnaires were filled up and revised, the perforation of the corresponding cards was carried out with the mechanical equipment belonging to the Federación.

The cards registering the census data for the 12,000 farms visited, and the corresponding tabulations, were completed by the beginning of 1957. The tabulation of the cards relating to the 1,000 farms visited for purposes of the productivity study is now being brought to a conclusion.

In March, after the completion of its work in Colombia, the ECLA/FAO Working Group returned to the ECLA/FAO headquarters in Santiago, Chile, to start on the analysis of the data gathered and the drafting of the report, a provisional version of which is expected to be ready by the end of August.

3. Comparison between some of the findings of the  
Colombia and El Salvador studies

Although no conclusions can be drawn from a study of this kind until after completion of the tabulation and analysis of the statistics assembled, an anticipatory appraisal of some general aspects can be offered as the basis for a preliminary comparison between coffee-growing in Colombia and in El Salvador.

For example, the data collected in Colombia fully confirmed the great importance of the labour input in coffee production. It is of particular interest to compare the intensity of the use of manpower and other factors of income, since it can be seen that less intensive methods are practised in Colombia than in El Salvador, and that this apparently results in lower yields per hectare. Nevertheless, everything seems to suggest that as regards the intensity with which inputs are utilized, coffee-growing follows much the same lines in Colombia as in El Salvador.

A basic factor influencing production trends is the establishment of new plantations. In El Salvador this factor was observed to be currently of little importance for the future development of coffee-growing. To judge from a preliminary analysis of the data on Colombia, the possible influence of new plantings on the future growth of production has also declined in relative significance during the past few years. Broadly speaking, however, a high proportion of Colombia's coffee-plantations can be said to be more recently established than is the case in El Salvador; and in the former country coffee-planting is also being initiated in new zones, thus counterbalancing the fact that in certain Departments of Colombia where coffee has been grown for a long time, the plantations are getting very old.

On this aspect of coffee-growing, of such great importance for the future development of production, a preliminary analysis has been prepared which is given below for illustrative purposes.

The findings of the survey in Colombia corroborated those of the analysis carried out in El Salvador as to the effects of the old age of plantations on production. The age of the plantations, which is in turn  
/determined by

determined by that of the majority of the coffee-trees composing them, exerts a considerable influence on the average yield per unit of area. The research in both countries showed that yields increase rapidly up to eight years after the establishment of the plantations. From then on they continue to rise, although at a slower rate, until they reach their maximum when the coffee plantations are between ten and twelve years old; and thenceforward a gradual decline sets in. This similar relationship between the yield and the age of the coffee plantations in El Salvador and in Colombia can be more clearly grasped from figures I and II, which show the corresponding data as a percentage of the maximum yields attained by age groups.

The degree to which yields decrease in the two countries seems to vary, within certain limits, in inverse ratio to the intensity of the replantings carried out in previous years. This suggests that if under-productive coffee-trees were replaced by means of adequate replantings, in the course of time extremely favourable conditions for the expansion of production would be created.

Stress should therefore be laid on the apparently vital importance for production levels of more intensive cultivation of the crop.

#### 4. Important consequences of the Colombia study

Apart from the intrinsic value of the study carried out in Colombia, the findings of which will appear in a special report, attention must be drawn to its permanent repercussions in the organizations concerned with the development of coffee-growing in Colombia.

Before the research was brought to an end, the Federación Nacional de Cafeteros de Colombia requested the ECLA/FAO Working Group to make suggestions as to the best way in which the institution in question could continue the work begun and give it a permanent character. As a result of the Group's recommendations, the Federación arranged for the establishment of special services for the periodic compilation of census and economic data on the growing and processing of coffee in Colombia. By means of surveys at regular intervals the Federación plans not only to bring up to date the available information on new plantations and replantings and as to  
/the economic

GRAFICO I

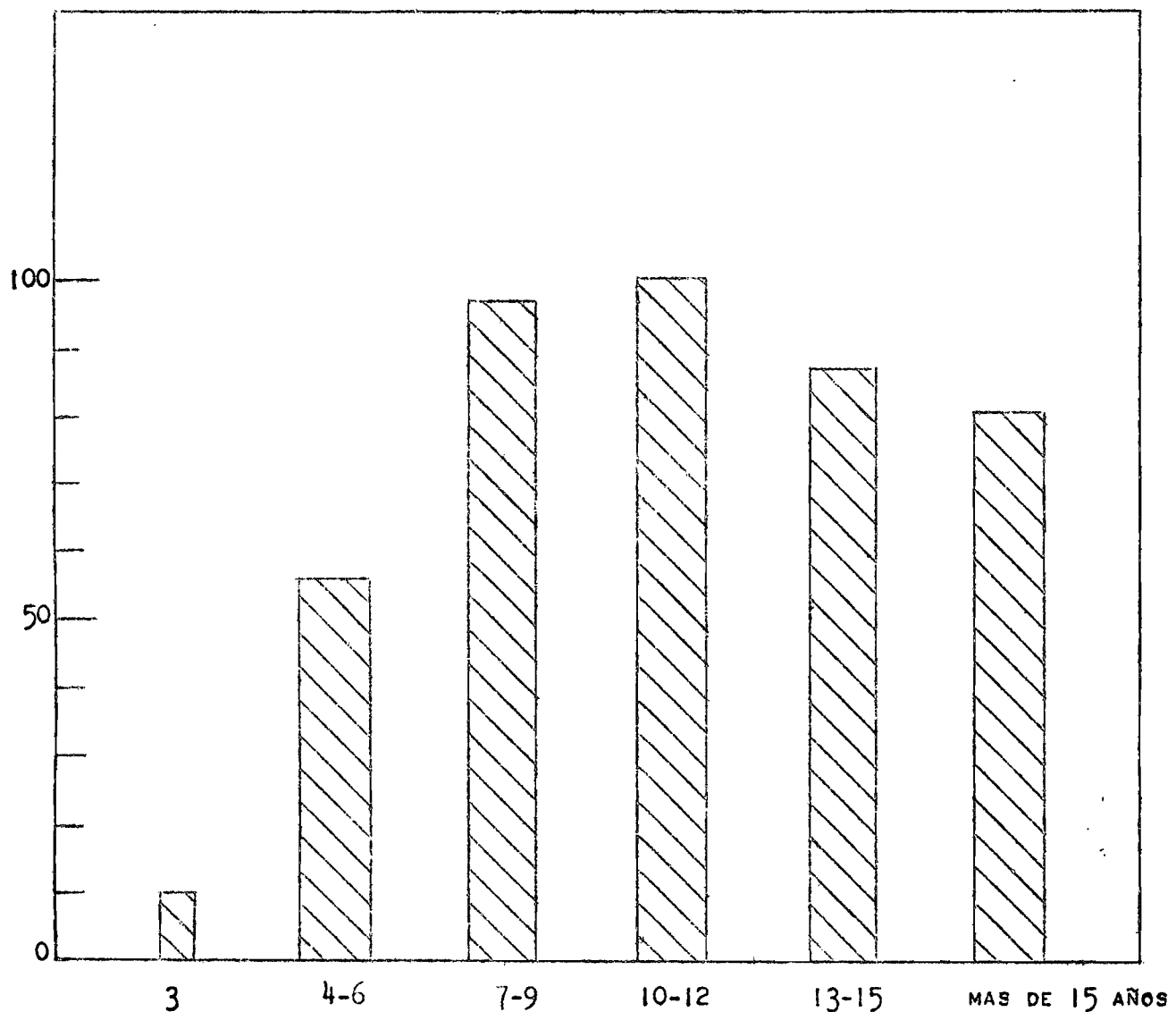
EL SALVADOR

INDICE DE RENDIMIENTO PROMEDIO POR EDAD DE LOS CAFETALES

(RENDIMIENTO MAXIMO = 100)

PERCENTAGE OF  
MAXIMUM YIELD  
PORCIENTO DEL  
RENDIMIENTO MAXIMO

ESCALA NATURAL



FUENTE : ESTUDIO EL SALVADOR-CEPAL/FAO.

SOURCE: ECLA/FAO STUDY ON COFFEE IN EL SALVADOR

FIGURE I  
INDEX OF AVERAGE YIELD BY AGE OF COFFEE PLANTATIONS  
(MAXIMUM YIELD = 100)  
NATURAL SCALE



GRAFICO II

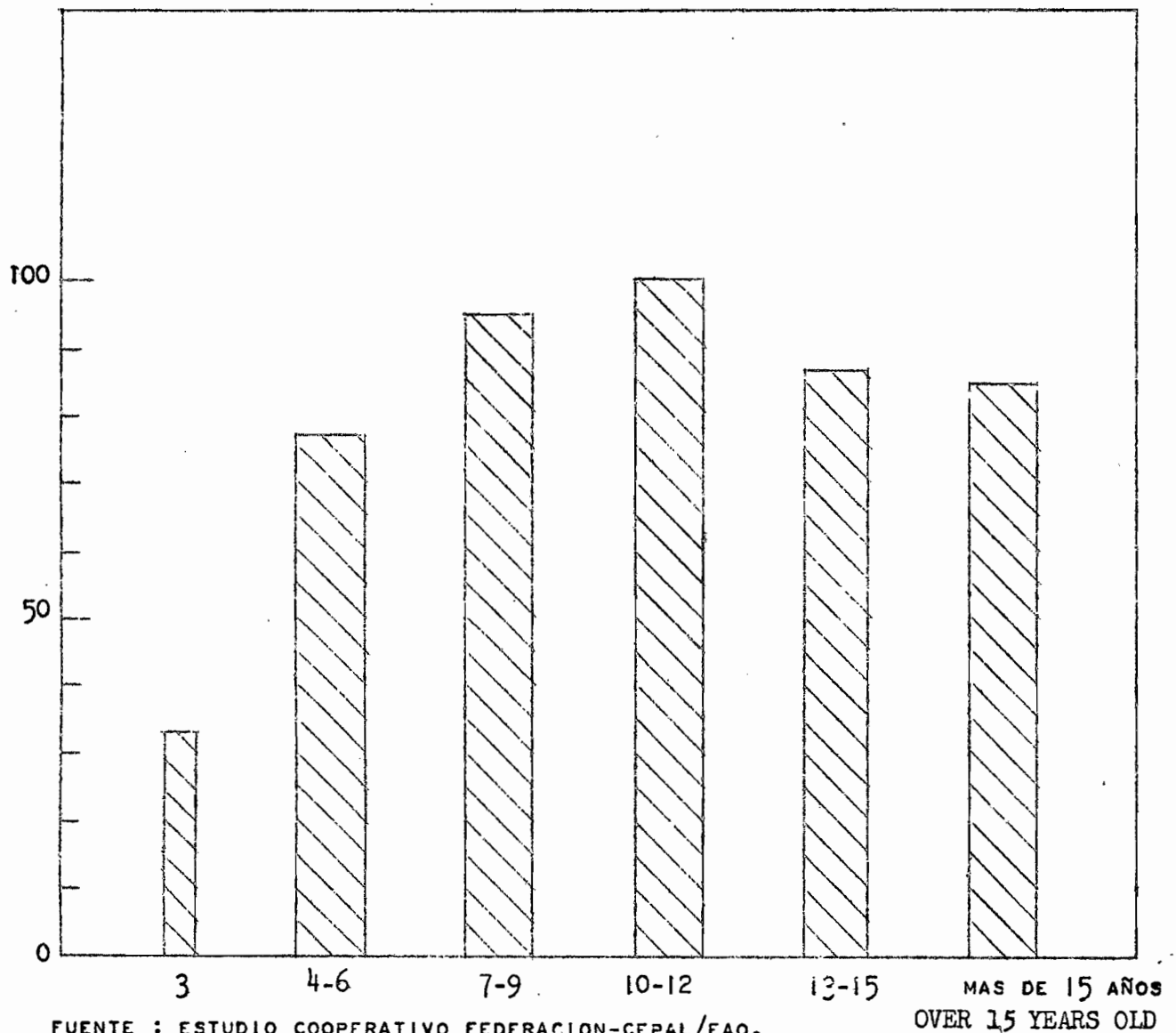
C O L O M B I A

INDICE DE RENDIMIENTO PROMEDIO POR EDAD DE LOS CAFETALES

(RENDIMIENTO MAXIMO = 100)

PERCENTAGE OF  
MAXIMUM YIELD  
PORCIENTO DEL  
RENDIMIENTO MAXIMO

ESCALA NATURAL



FUENTE : ESTUDIO COOPERATIVO FEDERACION-CEPAL/FAO.  
SOURCE: FEDERACION-ECLA/FAO JOINT STUDY

FIGURE II  
INDEX OF AVERAGE YIELD BY AGE OF COFFEE PLANTATIONS  
(MAXIMUM YIELD = 100)  
NATURAL SCALE

the economic situation of the coffee-grower, but also to obtain data on the condition of the coffee-plantations during the setting and ripening period, in order to forecast the harvest months before the picking season begins. There can be no doubt that if this example were followed in other countries a twofold advantage would be gained. A clearer idea could be formed of the position of coffee-planters and of how it might be improved, while at the same time world market prices would not be subject to speculative fluctuations, since the volume of each year's harvests would be known in good time.

#### 5. Continuance of the ECLA/FAO study

Once the final report on Colombia has been completed, the coffee project could be extended to other Latin American countries. In this connexion it would seem that for the time being the most useful procedure would be to undertake studies on the special features of coffee production in those areas where the crop is grown without shade trees.