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REPORT OF THE REGIONAL PREPARATORY MEETING FOR
THE FIRST CONSULTATION MEETING ON THE
VEGETABLE OILS AND FATS INDUSTRY^{1/}

organized jointly

by

UNIDO/ECLA

13 - 17 June 1977
Santiago, Chile

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INTRODUCTION

The system of consultations in the industrial sector initiated at the beginning of 1973 was later enshrined in the Lima Declaration and Plan of Action on Industrial Development and Co-operation, approved by the Second General Conference of the United Nations Industrial Development Organization (UNIDO), held in Lima, Peru, in March 1975. This innovative machinery will contribute, it is hoped, to increasing the share of the developing countries in world industrial production.

Before the Second General Conference of UNIDO in Lima the developing countries took important decisions at the regional and international levels. For instance, the Latin American Conference on Industrialization approved in Mexico, in November 1974, a document "Industrialization in Latin America : Principles and Plan of Action", which emphasized inter alia the firm resolve to promote industrial development through concerted measures at the national, subregional, regional, interregional and international levels, aimed at the modernization of the Latin American economies. The document also emphasized that the restructuring of the international economic order in industry requires adaptation of the machinery and modes of international co-operation, for which purpose the United Nations, its specialized agencies and the regional economic commissions constitute natural fora for negotiation by Governments of agreements and commitments relative to the structure of the new order in industry.

At the interregional level, the Group of 77 - at its Second Ministerial Meeting held in Algiers in February 1975 - approved a Declaration and Plan of Action on Industrial Development and Co-operation, which envisaged a system of continuous negotiations and consultations at the world, regional and sectoral levels, as the principal means for facilitating the implementation of a new international economic order. It requested UNIDO to assume the function of a forum for the negotiation of agreements between developed and developing countries and also between developing countries themselves.

The Second General Conference of UNIDO recommended, and the United Nations General Assembly at its seventh Special Session endorsed, a proposal to establish through UNIDO a system of permanent consultations at all levels : world, regional, interregional and sectoral.

In conformity with those directives, the Industrial Development Board at its Tenth Session decided that, as a first step, UNIDO should convene consultation meetings - experimental in character - in certain specific industrial sectors. It also decided that in order to prepare the ground for sectoral consultations, UNIDO, in co-operation with the regional agencies could commence preparatory activities at regional level. In Latin America, the second preparatory meeting for agro-industries, to be precise the vegetable oils and fats industry, was organized by ECLA (Economic Commission for Latin America) and UNIDO from 13 to 17 June 1977, at ECLA Headquarters in Santiago. The purpose of that meeting was to identify and discuss the priority subjects to be considered at the first global consultation meetings on the vegetable oils and fats industry to be held in December 1977, on the basis of requests from the region, and to inform UNIDO accordingly. The subjects to be selected in the preparatory regional meetings for this subsector will be based on the following considerations:

1. The potential for the expansion of the vegetable oils and fats industry applicable to Latin America in the short and medium-term view, (1985 and 1990) and in the long-term view up to the year 2000, on the basis of an analysis of consumption and production in the present and the future, including an indication of the estimated order of magnitude of such expansion.
2. Requests for increasing the share of the Latin American countries in world production of vegetable oils and fats in terms of natural resources (to guarantee the increase of processing at the source of supply); energy requirements; manpower requirements; financing; marketing; international competitiveness; location of processing capacity and infrastructure problems; regional co-operation; international co-operation; etc.
3. The advantages, opportunities and constraints operating in this subsector for the relocation in Latin America on the basis of specific examples. In the identification of specific subsectors of industries subject to accelerated relocation from developed to developing countries, the following factors should be taken into account as far as possible for Latin America : existing policies, environmental and labour conditions in the market, including the financial and marketing measures required for the promotion of such relocation.

I. ORGANIZATION OF WORK

Duration of the meeting

1. The Regional Preparatory Consultation Meeting on Vegetable Oils and Fats was held at Santiago, Chile, the Headquarters of the Economic Commission for Latin America (ECLA), from 13 to 17 June 1977.

Attendance

2. The meeting was attended by seven Latin American consultants and experts and representatives of FAO and UNDP. (A complete list of participants appears in Annex II of this Report).

Opening Ceremony

3. At the opening ceremony, addresses were given by Mr. Roberto Matthews, Director, Joint ECLA/UNIDO Industrial Development Division; Mr. Jorge Sucoar, Chief of the Sectoral Studies Section and Miss Liana Masens, Negotiations Section, UNIDO. (The complete texts of these addresses appear in Annex I to this Report).

4. Mr. Roberto Matthews acted as Chairman of the meeting and Mr. Jorge Sucoar as Vice-chairman.

5. The meeting adopted the following programme of work:

A. The regional situation of the industry

- (a) A statement on the present and future situation for the production of oil seeds in Latin America, by Mr. Mario Habit, FAO;
- (b) Statement by Mr. H.G.R. Reddy, regional industrial adviser, on the results and conclusions of the preparatory regional meeting held in the Economic and Social Commission for Asia and the Pacific (ESCAP);
- (c) Statement on the general situation of the vegetable oils industry in Latin America, by Mr. Michael Schneider.

B. Discussion of the present situation, growth potential and the most relevant problems of the vegetable oil industry in Latin America

1. General aspects

- i. Raw materials and other inputs
- ii. Technology and production processes
- iii. The creation of new production capacity
- iv. Marketing and infrastructure

2. Specific aspects

- i. Soya-bean oil and soya beans^{1/}
- ii. Cotton-seed oil and cotton-seed^{1/}
- iii. Sunflower oil and seed^{1/}
- iv. Palm oil and palm kernels^{1/}
- v. Other oils and seed^{1/}
- vi. Oil cake and meals

3. Regional and international co-operation

4. Relocation of production capacity

C. Discussion and adoption of the Report

6. Through the ECLA Secretariat, the participants received the documents prepared for the meeting (the titles of the documents appear in Annex III of this report). The consultants Mr. Miguel A. González, Mr. Schneider and Mr. Zaldivar each presented documents as requested according to the terms of reference outlined in the note for participants.

7. The subjects contained in the programme adopted were studied at plenary meetings, and it was decided to establish two working groups to consider certain particular aspects of the vegetable oils and fats industries in the region and for the drafting of conclusions and recommendations. The first group, consisting of Mr. E. Parallada, Mr. J. Zaldivar, Mr. J. Pardo and Mr. V. Estrada, dealt with aspects related to raw materials

^{1/} Delete (UNIDO Secretariat comment).

and processing. The second group, consisting of Mr. M. Schneider, Mr. M. González and Mr. H. Keunecke, dealt with the final products of the industry and their marketing.

Closing session

8. At the closing session, the meeting took note and adopted the draft report and empowered ECLA and UNIDO to bring it out in its final edited form.

II. THE VEGETABLE OILS AND FATS INDUSTRY IN LATIN AMERICA

A. General considerations

9. The industrial processing of oil seeds is one of the oldest manufacturing activities in Latin America and its importance has grown considerably during recent years. An indication of this is given by the extraordinary growth of production of oils, oil cake and flour in the region in recent years.

10. Vegetable oils have come to occupy an important position in world production of oils and fats of every kind, replacing to a large extent animal fats. In fact, it is estimated in the world production of oils and fats, those of vegetable origin account for about 70 % (of which 60 % are edible oils); animal fats for 27 %; and oils from aquatic animals for 3 %.

11. The growing world demand for edible vegetable oils and particularly the demand for oilcake and flour has created a considerable incentive for expanding the cultivation of oil seeds in Latin America.

12. In the Latin American region, owing to the great variety of climates, the availability and richness of soils, practically all known types of oil seeds are cultivated. Nevertheless, only few of them are produced in large quantities and even fewer have found a footing in world markets.

13. In Latin America, the industrial installations for grinding seeds, the extraction and refining of vegetable oils and the production of oilcake are in general efficient, since they employ advanced technology. This is observed even in relatively less developed countries. At the same time, the production of vegetable oils and better quality margarine is acquiring great importance in the region.

14. The region has a large market, consisting of a population of 344 million persons with a mean annual per capita consumption of about 6.5 kg of vegetable oils, representing an annual regional consumption of more than 2.2 million tonnes of these products. The demographic growth of the region, 2.7 % per annum, coupled with per capita income growth, calculated at about 3 % per annum, offer interesting prospects for the vegetable oils industry in Latin America. Thus both the regional market and the world market present considerable incentives for the development of the production of oilcake and meals.

B. Main characteristics

1. Raw materials

15. As has been mentioned above, the growing internal and external demand for vegetable oil and oilcake and meals has stimulated the cultivation of oil seeds in Latin America.

16. In fact, the production of oil seeds in the region increased between 1966 and 1976 from 7.4 million to 18.7 million tonnes. In other words, there was an annual growth rate of 9.7 % during the decade mentioned.

17. This high growth in the production of oil seeds has been reflected in a large increase in the relative share of Latin America in world production: from 7 % in 1966, it rose to 13 % in 1976.

18. Nevertheless, the volume of oil seed production in Latin America is accounted for by a small number of types of seed and is generated by a few producer countries. Out of regional production of oil seeds, in 1976, soya

contributed 68 %, cotton seed 13 %, ground nuts 6 %, sunflower 6 % and African oil palm 2 %. The main producer countries are Brazil, which accounts for 70 % of the oil seed production in the region, Argentine with 13 %, Mexico with 7 %, Colombia with 2.5 % and Paraguay with 2 %.

19. The volume of oil seeds sold in the world market varies between 12 and 14 % of total production. Latin America exports about 20 % of its output. In 1975, the Latin American share of international trade in oil seeds was 17.8 % in terms of world exports and 0.7 % of imports. Trade in oil seeds in Latin America is almost exclusively in soya beans. In fact, in 1975 Latin America exported 3.4 million tonnes of soya beans, representing 98.8 % of the total exports of oil seeds. The export of sesame was of some importance in 1970 (12 % of regional exports of oil seeds) but fell to 1 % in 1975 : 31,000 tonnes.

20. The regional imports of oil seeds have been dropping noticeably during recent years. In 1970, 208,000 tonnes were imported and in 1975, 125,000 tonnes, the main seeds imported being soya and rape.

21. It is estimated that requirements of oil seeds to satisfy consumer demand for oil by the Latin American population in 1985 and 2000 will be of the order of 25 to 45 million tonnes, respectively. These figures do not take account of any supplying by Latin America of external demand for oil seeds and derivatives nor of domestic demand for oil cake and meals. These estimates of orders of magnitude are based on the assumption of per capita consumption of 10 and 12 kg of refined oil in 1985 and 2000 and a population of 428 and 625 million in these two years^{2/}.

22. In order that Latin America can satisfy regional demand as estimated in the previous paragraph and participate more dynamically in world trade in oil seeds and their derivatives, it will be necessary to increase the output of oil seeds by unit of area under cultivation, through the more extensive and intensive use of improved seeds, fertilizers and pest control agents. Similarly, policies should be adopted at the national and regional

^{2/} Revise figures (UNIDO Secretariat comment).

levels to promote the cultivation of these products, the creation of the appropriate infrastructure, particularly with regard to storage, port installations and transport.

23. The behaviour of prices at the producer and international levels has an important influence on the cultivation of oil seeds; credit policy and to some extent the land tenure structure in some countries has a similar affect.

24. Supplementing what has been said in previous paragraphs, it is possible, in a tentative manner, to define certain ecological subregions in Latin America in which the production of oil seeds can be substantially increased:

- (i) Mexico and Central America^{3/}: the production of soya, sesame, safflower, groundnut and cotton-seed, and palm kernels can be increased. More problematic and in the more distant future is the increase in the production of coconut and African oil palm.
- (ii) Caribbean islands: the potential for the production of oil seeds in the Caribbean islands is slight. The two types most likely to increase are soya and sesame. Groundnuts, which at present represent the most important oil seed in this subregion, are used to a growing extent for direct consumption or export.
- (iii) South American tropical region: the production of sesame, although it has great possibilities, has recently been affected by the high production costs, the stagnation of unit output and the smaller relative increase in prices paid to the farmers. Groundnuts and coconut palm are also species that have great possibilities in this subregion.
- (iv) Subtropical regions: soya, cotton seed and groundnuts are the species whose cultivation is most favoured in view of ecological conditions.
- (v) Temperate regions: the potential for the production of oil seeds in this subregion centres particularly around sunflower and linseed.

^{3/} Indicate the countries covered; include tropical countries like Colombia (UNIDO Secretariat comment).

2. The vegetable oils industry in Latin America

25. Latin America has improved its relative importance as a region producing vegetable oils, in the world context. In the period 1961-1965, the average annual production of the region was 2.2 million tonnes of crude oil, representing 7.8 % of world production. In 1970, its share increased to 8.4 % and in the following years continued to increase until it reached 11.3 % in 1976^{4/}. In the latter year, the region produced 4.7 million tonnes of crude oil, which means that it doubled the volume of production in the course of the decade.

26. During the last six years, the annual growth of the production of vegetable oils throughout the world was irregular, alternating from positive to negative trends in successive years. On the other hand, in Latin America, except for 1971 and 1975 when there were some decreases, the production of vegetable oils has shown sustained growth; considerable expansion occurred in 1973, 1974 and 1976 - 11.5, 18.5 and 14.3 %, respectively.

27. The considerable growth in the production of vegetable oils in the region is due in large measure to the great expansion of production in Brazil and its large share in the total production in the region. In Argentina, there was a strong recovery in 1976 as compared with the previous year, equivalent to an increase of 31.7 % and in particular by comparison with 1971 and 1972, in which years the production of vegetable oils dropped considerably. Other countries that have registered increases in production in recent years are Colombia, Uruguay, Costa Rica, Guatemala and Nicaragua.

28. Brazil and Argentina are the chief producers of vegetable oils, the first accounting for 56 % and the second for 20 % of regional production. Mexico contributes about 10 %, Colombia 3 % and Uruguay and Venezuela 1.3 % each, while the other countries have shares of less than 1 %.

29. A large part of the production of vegetable oils in Latin America is represented by soya-bean oil (50-55 % of total production).

30. In Brazil the production of soya bean oil accounts for 70% of total production. Cotton seed oil has a share of 14 %; palm and babassu oil 8.5 % and groundnuts 7 %.

4/ Revised figures (UNIDO Secretariat comment).

31. In Argentina, on the other hand, sunflower oil is the most important of the edible oils. In 1975, about 418,000 tonnes were produced, of which 50 % were accounted for by sunflower oil; 20 % by soya bean oil; 13 % by groundnut oil and the rest by cotton seed, olive and other vegetable oils. The great increase in the production of soya bean oil in that country should also be emphasized.

32. In Mexico, sunflower and soya bean oil constitute the most important sources for the production of edible oils. In 1975, of the 413,000 tonnes produced, 43 % were accounted for by sunflower oil; 31 % by soya bean oil and the rest in similar percentages by cotton seed and sesame seed oil. The production of sunflower oil is of little relative significance.

33. In Central America, cotton seed and palm oil occupy the most important places in the production of vegetable oils. Guatemala, Nicaragua and El Salvador are the chief producers of cotton seed oil, while Costa Rica and Honduras are the largest producers of palm oil. Costa Rica, furthermore, produces palm oil and El Salvador and Honduras produce coconut oil.

34. In Central America, cotton seed oil represents about 65 % of the production of vegetable oils, and palm oil 21 %. Guatemala and Nicaragua each produce 36 % of the total subregional output of cotton seed oil.

35. Some Latin American countries are large producers and exporters of industrial oils. The competition from synthetic products has led to the decrease in production observed during recent years in some of these oils.

36. Regional production of linseed oil, which had been decreasing for some years, represents 26 % of world production. The largest producer in the region is Argentina, which accounts for 95 % of Latin American production.

37. Regional production of castor oil represents 35 % of world production. The largest producer is Brazil (83 %), while Mexico and Paraguay and Ecuador also produce this oil.

38. Latin American production of tung oil represents 28 % of world production. Argentina and Paraguay are the chief producers.

39. Oil cake and oil seed flour, which are by-products of the oil industry, have acquired considerable economic importance during recent years, owing to the growing demand for balanced animal feed; to some extent that has affected the changes that have occurred in the types of oil seeds processed.

40. The prospects for general use of flour from oil seeds as a source of proteins for human consumption suggest that this industrial activity may acquire in the future a much greater significance within the food processing industries and the manufacturing industry as a whole.

41. The technology and knowledge of both stages of the manufacture of oil (extraction of fatty matter and its later refining) are simple and are at the moment at the disposal of the users in the area, either through specialized engineering firms or through manufacturers of local equipment or representatives of imported equipment.

42. Practically all the equipment for oil plants (extraction and refining) can be made in the region. Some countries, such as Argentina, Brazil and possibly Mexico, can manufacture all equipment necessary for these stages.

43. Other countries, such as Colombia and Chile, can supply at least 50 % of the equipment, and countries with less mechanical engineering development can provide between 20 and 30 % of such equipment.

44. The annual installed grinding capacity in Brazil is at the moment of the order of 7 million tonnes; in the coming years new installations will be opened, so that 7.7 million tonnes can be produced before 1981.

45. In Argentina, the installed grinding capacity is of the order of 3.3 million tonnes and new plants are being installed which will shortly increase this capacity. Of the 66 oil factories, 33 produce sunflower oil with a daily installed capacity of more than 9,000 tonnes in all; 10 process soya beans and groundnuts with a grinding capacity of 5,000 tonnes per day and 3 produce cotton seed oil.

46. In Mexico there were slightly more than 110 oil producing enterprises in 1970 and the installed grinding capacity was calculated at about 3.5 million tonnes per annum. Of this capacity, approximately 60 % was in use; this figure is decreasing.

47. The degree of utilization of installed capacity in the oil industry is generally lower than 70 %, and in some cases may be much below 50 %. Apparently there would not be any technical or financial problems in the way of increasing the installed capacity of the oil industry in the region to the extent required by the future demand for these products. However, there are technical and financial problems regarding an increase in the production of flour for human consumption.
48. On the other hand, certain countries have difficulties in obtaining middle-level supervisory staff (mechanical technicians, electricians, instrument-makers, etc.) and executive staff.
49. The participation by transnational enterprises does not seem to be of great significance in the production of oils in most countries in the region; on the other hand, it is of importance in the international marketing of such products as far as some countries are concerned.
50. Regarding the prices for vegetable oils, in 1974, after a period in which they showed slight variations or fluctuations, there was a general and significant increase. In some cases the decrease in supply can explain this increase in prices, but the speculative action that occurred through the great marketing centres for these products also had an effect.
51. In general, the prices for vegetable oils are closely interrelated. The price for olive oil, however, is relatively independent from that of the other oils.
52. In the medium-term view, the trend for accentuated growth in the prices of edible vegetable oils as a whole will probably be maintained.
53. During recent years, Latin America has slightly improved its relative share in world exports of vegetable oils and has maintained its level within imports. In both aspects of world trade, that is to say, in exports and imports, Latin American participation in 1975 was of the order of 6 % and, by volume 360,000 tonnes of exports and 337,700 tonnes of imports, representing by value 228.3 and 257.1 million dollars respectively. It can be stated that the trade balance in vegetable oils for the region as a whole is generally in a state of equilibrium, although obviously that does not reflect the situation in each country.

54. In the worldwide trading of oilseed cakes and meals, Latin America has acquired considerable importance as an export region. The fact is that the regional exports of these products in recent years have almost doubled, increasing from 2,180,500 tonnes in 1970 to 3,987,400 tonnes in 1975, which represented 19.7 % and 28.9 % of worldwide exports for the years mentioned. Latin American imports of oilseed cakes and meals also registered an almost two-fold increase between 1970 and 1975, moving from 174,600 tonnes to 318,400 tonnes, which represented 1.4 % and 2.2 % of world imports for those years^{5/}.

^{5/} Mention the increasing market within the area itself - for example within the Andean region (UNIDO Secretariat comment).

III. Recommendations for future action for the
development and expansion of the vegetable oils and fats
industry in Latin America

1. Raw Materiale

55. At the present time, the region presents a highly diversified picture in respect of oilseed production. Basically, in the two zones, temperate and tropical, within which it is possible to group the countries of the region there are some 12 species under cultivation, disregarding the so-called wild-growing species.

Oil seeds are grown in nearly all the countries of the region, although there are significant differences in the volume-to-consumption ratio from country to country.

The greatest production is found where there are annual crops, particularly in Brazil, Argentina, Mexico and Colombia, which together account for some 90 per cent of the region's oilseed production.

Taken as a whole, the region is self-sufficient and even exports oilseed and vegetable oil surpluses, although there are individual countries which under-produce and cover their requirements through imports from the international market.

56. Within the region, areas and possibilities exist which could be used to increase oilseed production to a significant degree. Argentina, Brazil, Colombia ^{6/}, Ecuador, Paraguay and Venezuela are in the position of being able, in the future, to expand their present oilseed growing areas. In the other countries, increased production will depend primarily on the achievement of higher yields per unit area under cultivation.

The annual species offering the best prospects for expansion are, in descending order, soya, sunflower, and safflower, followed at some distance by rapeseed, which could be grown in larger quantities in the southern part of Chile and in Argentina.

57. Of the remaining annual crops, a levelling out can be observed in the production of groundnuts and sesame, with the first showing a declining tendency in a number of countries, such as Brazil. Cottonseed production depends primarily on developments in the price of the fibre, thus ruling

^{6/} Mention Colombia and the opportunities for rapeseed production. (UNIDO Secretariat Comment).

out the practicality of formulating any policy to develop this variety.

58. In the tropical subregion there are excellent opportunities for expanding production of the African palm and also coconut and copra, particularly in Southern Central America as regards the first, and in the Caribbean and Central America as regards the second.

59. The wild-growing species, currently used solely to meet requirements at the family level, could be cultivated on a greatly expanded bases, provided the resources required to develop and work them are applied.

60. The non-edible oil seeds which are grown in a number of the countries in the region are in a declining production phase as a result of the drop in demand for their oil. The only exception is the castor-oil plant, the cultivation areas for which reflect the steady demand for its oil product.

61. On the basis of these considerations, it is believed to be now possible to double oilseed production, taking into account, above all, the dynamic rate of growth observed in the case of Brazilian soya, the opportunities for boosting sunflower production in Argentina ^{7/}, and the favourable situation with respect to palm and coconut in Central America and the Caribbean.

62. Regarding the more ambitious long-term objectives and also the effort to raise the currently under-producing zones to at least the level of sustained self-supply, attention is called to the following problems:

- (i) The inadequate dissemination of information regarding the agricultural techniques available in the region and regarding the results of research and development currently in progress, as a means of ensuring their application by the agricultural producer;
- (ii) Failure to make use of the improved varieties available or of the high-yield species best adapted to the ecological conditions of each country (this last heading includes the failure to use native oilseed species);
- (iii) The impossibility of reliable agricultural planning due, in some cases, to abrupt fluctuations in prices and, in others, to the lack of a steady marketing flow;
- (iv) The inadvisability of diversity in oilseed production with no attention given to the specialised adaption of the resources available at the regional level;

^{7/} Separate, since the potential of Central America and the Caribbean is much smaller than that of the rest of Latin America (UNIDO Secretariat comment)

- (v) There are still cases, within the region, when seeds are exported to third countries, at the same time, that the region's deficit countries import these same seeds from the international market;
- (vi) The inadequacy of storage and transport facilities at both the national and intra-regional level, limits the effective demand in potential markets and makes it necessary to place production in certain less favourable markets.

In order to increase the oilseed production target ^{8/} and eliminate the obstacles mentioned in this section, it is deemed advisable to consider and follow the courses of action defined below:

63. At the national level

- (i) To recommend to the national governments the review or, where appropriate, the introduction of policies designed to increase oilseed production through expansion to new cultivation areas or the optimization of yields per unit area;
- (ii) To recommend to the governments the study of the actions required to ensure the adequate management of current production volumes and future increases, as well as the avenues of intra-regional trade;
- (iii) To promote the organization of agricultural producers for the purpose of facilitating the popularization of improved techniques and joint action by these producers in their purchases of inputs and in the marketing of their products.

64. At the regional level

- (i) To promote and streamline the exchange of information, reciprocal assistance, agricultural techniques, production estimates, and factors of importance to the preparation of price forecasts for products and inputs;
- (ii) To facilitate oilseed trading among the countries of the region so as to avoid imports from outside the region by deficit countries and increase the processing of the seeds within the region itself;

^{8/} - ECLA Secretariat to produce figures for target (UNIDO Secretariat comment)

- (iii) To strive for specialization in oilseed production within the region, depending on ecological and economic feasibility, by preparing for this purpose an ecological map of the region as well as the necessary machinery to ensure demand, reasonable prices, etc.;
- (iv) To promote, expand and diversify the regional manufacture and exchange of chemicals, fertilizers, pesticides and other products used in the growing of oilseeds.

65. At the intra-regional level

- (i) To promote and expedite the exchange of production and market information so as to permit joint action in the interest of price stabilization;
- (ii) Intra-regional assistance with regard to agricultural techniques, improved varieties, pest control and plant diseases.

66. At the global level

- (i) To promote the establishment of an effective system of information on short- and medium-term oilseed products requirements so as to facilitate production programming and regularity of supply;
- (ii) To agree procedures designed to avoid abrupt fluctuations in the prices of oilseed raw materials and also price penalties depending on origin.

2. Vegetable oil production

67. The region's installed capacity is sufficient to meet the present demand for vegetable oils, and although the industrial structure consists of dissimilar elements, the available technology and plant is adequate.

68. Oil and flour manufacturing equipment is produced in the region at a technological level adequate to current requirements.

69. The region is, and will continue to be, dependent in relative terms, on foreign technology for new techniques in the processing of both flours and refinery by-products.

70. The oils and flours produced in the region satisfy the quality standards in effect in the international market.

71. The future expansion and integration of the oilseed industry in the region faces the following problems:

- (i) Underdeveloped engineering and technological capability for the production of sophisticated articles having a higher value added, and for the vertical integration of the industrial process;
- (ii) Insufficient information and sharing of experience at the regional level regarding production volumes, local demand, processes, technological developments, equipment manufacture, etc;
- (iii) Lack of regional organization to work in the area of new product planning, creation and further development;
- (iv) Inadequate infrastructure for the regional distribution of the products, resulting in impaired opportunities for marketing under economically favourable conditions.

The following measures are recommended for overcoming these problems:

72. Expansion of the installed capacity in order to meet future oilseed production targets for the region through the following actions:

- (a) At the national level: An increase in the productivity of existing plants and the creation of new plants.
- (b) At the regional level:
 - (i) Regionalization of the system for the distribution of raw materials to enable the countries with shortfalls in their oilseed production to use their equipment more effectively;
 - (ii) Establishment of multinational enterprises in the region, with the backing of the appropriate bodies, especially the Latin American Economic System (SELA).
- (c) At the global level: Relocation [Spanish: "desplazamiento"^{2/7} of production capacity from developed countries to the region on the basis of agreements covering each case.

^{2/} One member objected to this term in Spanish (UNIDO Secretariat Comment)

73. Promotion of the development and transfer of echnology on the basis of the following actions:

- (a) At the national level: The intensive use of already existing national institutions in order that these may cover their area of specialization at the regional level.
- (b) At the regional level:
 - (i) The gathering^{10/} and dissemination of technico-economic and commercial information on oilseeds and derivative products at the national, regional and inter-regional levels, to serve as a focal point and contact with other countries and regions;
 - (ii) Recommendations on the equipment for the new capacity to be installed, using regionally produced machinery relying on regional engineering services.
- (c) At the inter-regional level: Co-operation and sharing of experience with the institutions of other regions.

3. Oil cakes and flours

74. Flour, which is a product obtained through the industrialization of oilseeds, is as important as the oil itself, both from the point of view of the producer and that of the consumer.

It is believed that while the demand for oil will increase because of population growth and greater per capita consumption, the demand for flour will rise even more sharply. Man will continue, for many years, to consume animal protein derived from vegetable protein, although the cost of the former is higher. Rough estimates suggest that the demand for flour has increased by some 80 per cent during the last ten years, so that it is reasonable to suppose that in future it will, out of necessity, rise at an even faster rate, particularly when one considers the general use of vegetable protein for human consumption.

75. As long ago as 1965 the Food and Agriculture Organization (FAO) projected a worldwide deficit of approximately 20 million tonnee of protein for the period 1965 - 1985, a shortage that could, in large measure, be covered by protein derived from oilseeds.

There have already been developments in a variety of methods for the isolation, concentration and purification of vegetable protein, opening up an area of unpredictable scope for the future development of the oilseed industry.

^{10/} For example, by means of a Latin American Oil Producers' Centre (UNIDO Secretariat Comment)

Even now one can find on the market such products as edible flour, concentrated protein, texturised protein, and protein in fibrous or tissue form for use in human foods.

76. Nevertheless, the region is faced with problems in the form of:

- (i) Relative ignorance regarding the extent to which these products have been developed throughout the world;
- (ii) Technological know-how for these products which, in some countries of the region, is still in its infancy;
- (iii) A lack of statistics and studies on which to base a determination of future requirements for these products.

77. At the regional level

- (i) The establishment of a Latin American body^{11/} to make possible the regional sharing of statistical, technological, market and other information regarding oilseed products and especially new applications or uses for oilseed cakes and flours;
- (ii) The promotion of greater vegetable protein consumption through educational campaigns and other media that can be employed to popularize the use of vegetable protein as an element of human nutrition. To this end, the services of already established organizations, such as SLAN, could be called on.

78. At the global level

- (i) The establishment of permanent channels of co-operation with the developed countries and with countries of other developing regions for the purpose of maintaining an uninterrupted exchange of research and development findings in this field;
- (ii) The co-operation of the specialized international organizations.

4. The market and marketing

79. At the present time, steady trading patterns have not been established in Latin America for the products, by-products and derivatives of the vegetable oil and fat industries, and a sizable portion of these products is siphoned off to the markets of the developed countries, despite the fact that

^{11/} Mention also under 64(i) and 73(b) (UNIDO Secretariat comment)

a number of the countries of the region are forced to import these very same products. The situation is probably similar in the other developing regions

80. Inter-regional commercial transactions are handled today through agencies located in the developed countries, placing the regional producers at a disadvantage vis-à-vis the buyers.

81. Other factors with a negative effect on the regional and inter-regional marketing of these products are infrastructure and transport facility deficiencies.

82. In general, the developed countries do not place limitations on the acquisition of raw materials in the developing countries, but they do interfere with the import of manufactured and semi-manufactured products. Price instability is another factor with harmful effects on the development of the oilseed sector.

83. In summary, the region may be said to be facing the following problems:

- (i) Lack of information at the regional and international level regarding oil and oil derivative production and requirements;
- (ii) Inadequate transport facilities and physical lines of communication;
- (iii) Lack of adequate storage and port facilities;
- (iv) Limited hold capacity in sea-going transport;
- (v) Instability of prices.

Accordingly, it is recommended:

84. At the national and regional level

- (i) To promote the establishment of a Latin American association with technical, economic and commercial functions as a consultative body to provide information and set prices;
- (ii) To expand and update the physical lines of communication so as to permit the freer flow of regional trade;
- (iii) To establish a preferential freight system to facilitate the marketing of food products;
- (iv) To increase the cargo capacity of the merchant marines of the Latin American countries.

85. At the international level

To promote a greater exchange of information with other regions.

86. At the global level

- (i) To seek funds from international financing institutions for the improvement and expansion of port facilities;
- (ii) To secure access to the markets of the developed countries and eliminate import tariffs on processed oilseed products;
- (iii) To establish international price-stabilization machinery, similar to UNCTAD's commodity agreements;
- (iv) To adopt measures to ensure that oilseed products and derivatives of high added value have access to an extensive and open market.

ANNEX I

Address delivered by Mr. Roberto Matthews, Director,
Joint ECLA/UNIDO Industrial Development Division
at the opening meeting of the Regional Preparatory Meeting on
Vegetable Oils and Fats

On behalf of the Executive Secretary of ECLA, Mr. Enrique Iglesias, who is absent on an official mission, and also on my own behalf, I am pleased to welcome you most cordially to this Regional Preparatory Meeting on Vegetable Oils and Fats, organized jointly by ECLA and the United Nations Industrial Development Organization (UNIDO). We had very little time to prepare this meeting, and this compelled us, inter alia, to issue the invitations and arrange for preparation of some of the documents too quickly to do justice to the magnitude and importance of the subjects to be taken up. However, as is borne out by the documents which have been prepared and by your presence in this room, the response has been unstinting and enthusiastic, and this makes us very happy. We are fully aware of the effort you are making in attending these meetings, leaving behind your usual tasks and responsibilities for a while, and we are therefore doubly grateful since your co-operation represents a very important support for the tasks we are undertaking and makes us feel very optimistic about achieving the objectives of this meeting. I should also like to extend these words of welcome to the representatives of UNIDO and FAO who are with us on this occasion.

This meeting has been convened in preparation for a world consultation meeting on these industries organized by UNIDO, which will take place in Madrid, Spain in December 1977.

These worldwide consultation meetings, which it is the responsibility of UNIDO to organize in the industrial field, are one of its responses to the mandate assigned to it at the Second General Conference held at Lima in 1975 to implement the principles of the Declaration and Plan of Action on Industrial Development and Co-operation approved at the Conference. The Lima Declaration and Plan of Action contains a number of measures to be adopted by the international community with a view to establishing a new international economic order in the industrial sphere. As you know, the United Nations General Assembly in 1974 approved two resolutions on the Declaration and Programme of Action for the Establishment of a new International Economic Order, which constituted recognition by the international community that, in order to promote the economic and social progress of all peoples, the system of international relations obtaining

in the world today must be replaced by another system based on equity, sovereign equality, interdependence, the common interests and the co-operation of all States.

As regards industrialization, the Programme of Action on the Establishment of a new Economic Order indicates a number of measures which should be taken with a view to the establishment of new world industrial capacity in which the developing countries would have a substantially greater share than at present.

In the Lima Declaration and Plan of Action, the developing countries accepted this challenge and laid down, as a goal for the year 2000, a share in world production, increased from the current 6.8 per cent to at least 25 per cent.

The Latin American countries, for their part, had decided at the Latin American Conference on Industrialization held in Mexico in 1974 that Latin America should increase its share from the current 3.6 per cent to at least 13 per cent by the end of this century. As one of the means of achieving these objectives, it was decided to establish a permanent system of consultations among the developed and developing countries and among the developing countries themselves, with a view to considering, in the context of specific industrial branches or products, the possibilities and most suitable forms of action to achieve these goals and prepare concrete proposals to be incorporated into the development programmes of developing countries. It was also indicated that these consultations should relate primarily to industries processing raw materials exported by the developing countries or consuming large amounts of energy.

UNIDO has already organized two consultation meetings, one on the fertilizer industry, and one on the iron and steel industry, but beginning with the meeting on vegetable oils and fats and that concluded last week on leather and leather goods, it has been decided first to hold regional preparatory meetings. This step cannot fail to be helpful in that it will not only make better preparation for the world conference possible, but will also provide the countries in the region with important basic information to enable them to fix their positions at the conference.

Here we are embarking on this experiment, and also, as many of you will have been thinking, we are confronted by many questions. The following question comes immediately to mind: What is this meeting, what subjects is it of interest to consider and what is expected of it?

In the first place, I feel I should point out to you that this is a technical meeting, a working group in which those who participate do so in

their personal capacity and solely by virtue of their own experience and knowledge of the subject. As a consequence, there are no representatives of countries here, and the fact that the participants are nationals of particular countries is merely a reflection of the intention to achieve the kind of geographical representativeness that would guarantee that our conclusions will be as realistic as possible in the Latin American context. I also think it important to make the point that this is an informal meeting and that we want it to be as informal as possible, without attention to protocol and marked by a climate conducive to a frank and candid discussion of the issues before us.

In the second place, a frame of reference has been established for the discussions at this preparatory meeting. This embraces three major subjects: the present state of the industry and its growth potential over the short-, medium- and long-term; the resources and conditions which should be present if Latin America is to increase its share of world production; and the advantages, opportunities and constraints involved in the relocation to Latin America of new production capacity, including the transfer of activities from the developed regions. Within this general framework, particular relevance attaches to the measures which would have to be taken at the national and regional level and by the international community to ensure that Latin America is able to realize its potential and take its rightful place in the world context.

Finally, it is hoped that from this meeting there will emerge a Latin American response to this challenge, a response that can be examined and discussed at the world consultative meeting to which I have already referred, as regards both the preparation of that meeting by UNIDO and the position to be taken at it by the regional countries attending.

Accordingly, our task will be to examine, within the context indicated, the state of the Latin American vegetable oils and fats industry and to identify in general terms the possible role of that industry in the future industrialization process of the region and the world. To state the problem confronting us is relatively easy, but to attack it will raise serious difficulties of various kinds, which it will be our task to solve in the course of our discussions.

We believe there are attractive prospects for the future development of the vegetable oils and fats industry in Latin America, both at the regional and international levels, and that trends in this industry

in recent years, augur well for its future. This industry is a long established manufacturing activity in Latin America, and even though its contribution to the industrial product is relatively small (about 2 per cent), its share in the total output of the food industry on the other hand is quite significant (about 15 per cent).

At present, the gross output of vegetable oils in Latin America is some 4.7 million tonnes, representing 11.3 per cent of world production as opposed to a figure of 8.4 per cent for the region in 1970. This increase in Latin America's share of the world production of vegetable oils has been due to the high growth rate of 7.7 per cent attained in regional production over the last six years, as compared with a world growth rate of 2.6 per cent.

In addition, the world vegetable oil market offers attractive prospects from the point of view of both demand and price in the developed market economy countries, and even in the countries with centrally planned economies. Latin America has been able to respond to the advantageous conditions that have arisen in the world market in recent years, as witnessed by the rise in the export figures for these products, in what has been a significant demonstration of its favourable position and production capacity. Oilseed exports from the region climbed from 343,000 tonnes in 1970 to nearly 3.5 million tonnes in 1975, so that Latin America's share rose from 2.2 to 17.8 per cent of world exports during that period. Those same years also saw a sharp increase in the exports of oil cakes and meals, which moved from a little more than 2 million to nearly 4 million tonnes, that is, from 19.7 to 28.9 per cent of world exports. On the other hand, the rise in vegetable oil exports has been less dramatic, from a volume of some 222,000 tonnes to 360,000 tonnes, i.e. from 5.5 to 6.4 per cent of world exports in the period between 1970 and 1975.

In the future, taking the short and medium term view, Latin America must be prepared to continue responding in this way to the increasing foreign demand for vegetable oils and, particularly, oil cakes and meals, and also to meet the challenge posed by the expansion of the regional market as a result of population growth and higher per capita consumption of vegetable oils.

It has been estimated that by 1985 the region will have a population of 428 million, and if we assume for that period a per capita consumption of 9 kg of oil, we arrive at a regional consumption figure of 3.8 million tonnes of refined oil, or some 70 per cent more than current consumption.

From these general figures it can be seen that considerable efforts will be required to increase production capacity to create an adequate infrastructure in terms of the availability of inputs and financing, regional co-operation, etc.

My purpose in this brief statement has been to sketch a very general picture of the aspects concerning us and the subjects to which we shall have to turn our attention. As I have already said, the task facing us is a difficult one, and is full of questions to which it will not always be easy to find answers. However, I am quite convinced that your broad experience and knowledge of this industry, coupled with the excellent spirit of co-operation shown, will enable us to carry out successfully, the task we have set ourselves and, in this way, to go to the world consultative meeting with a clear and precise vision of the future of this important industrial activity in Latin America.

Finally, I should like to express again our most sincere thanks for your valuable contribution and support, and I wish you a very pleasant stay in this city.

UNIDO OPENING STATEMENT AT THE ECLA/UNIDO
REGIONAL PREPARATORY MEETING ON VEGETABLE
OILS AND FATS

Santiago, 13 to 17 June 1977

Gentlemen,

1. It is a pleasure for me to welcome you to this Meeting on behalf of UNIDO. I am from the Negotiations Section which is responsible within UNIDO for establishing and implementing this new activity entitled the system of consultations. Mr. Hacini, the Head of this Section, is sorry that he is unable to attend this important preparatory meeting in Latin America personally but send you through me all his good wishes for a successful outcome.
2. As the UNIDO representative from the Negotiations Section, I would like to thank ECLA for the excellent arrangements they have made for this meeting. I am sure the papers which you the consultants have prepared for this meeting will make an important contribution to the successful outcome. UNIDO is very pleased that you accepted to attend this meeting as consultants or expert participants.
3. Although you are all, I hope, aware from the note for participants distributed in advance, of the background of this meeting, it is perhaps important that we should be clear from the outset what are the objectives. The overall purpose is to prepare for the First Consultation Meeting on Vegetable Oils and Fats to be held in Madrid 12 - 16 December and to be hosted by the government of Spain. This consultation meeting will be preceded by another consultation meeting on Agro-based industries, i.e. the First Consultation Meeting on Leather and Leather Products to be held

/in Innsbruck

in Innsbruck from 7 - 11 November and hosted by the government of Austria. These two industrial consultations will be attended by representatives of both developed and developing countries. The participants will include representatives of governments, industry, labour and perhaps consumer groups. At the First Consultation Meeting on the Fertilizer Industry held in January this year, 66 countries and 28 international organizations were represented, there were over 200 participants of whom about one-third were from industry. The attendance at the First Consultation Meeting on the Iron and Steel Industry was about the same. At these Consultation meetings a number of issues to ensure the growth in developed and developing countries in these sectors were identified and the constraints faced were examined. In preparation for the second consultations in 1978 a number of specific issues selected in the light of the constraints identified, are to be examined in depth by UNIDO with the assistance of working groups composed of a small number of interested participants from both developed and developing countries in order to facilitate subsequently the negotiation between the developed and developing countries concerned at these consultations. In accordance with their continuous action-oriented nature, the continuation and fruitful conclusion of this dialogue will depend crucially on the political will of the partners involved, it being understood that the outcome is to be beneficial to both parties, i.e. the developing and the developed countries.

4. In order to prepare for the consultation Meeting on Vegetable Oils and Fats Industry, the International Centre for Industrial Studies, part of the UNIDO Secretariat is presently preparing a world-wide study of this sector.

/Conference Room

Conference Room Document N° 2, distributed provides a summary indication of what it will contain. Mr. Succar is in charge of this work and will be able to tell you more about it. The main aim of this study is to present an overall global picture based on the present situation of the industry, that is a background against which developing countries could formulate their own plans and projects. The study will also examine the main constraints on the development of the industry in developing countries in a long-term perspective, and the principal factors which condition the growth of this industry in developing countries.

5. On the basis of the conclusions of this study, the conclusions of the Regional Preparatory Meetings at ECA, ESCAP and ECLA, due to the political uncertainty in Beirut, ECWA could not be covered; similarly, contacts with selected representatives from developed countries, chambers of commerce etc. an issue paper, synthesizing the main conclusions requiring follow-up action and of interest to both developed and developing countries will be prepared and submitted to the actual Global Consultation Meeting.

6. The aim of these industrial sector consultations is to facilitate the achievement of the goals which developing countries establish for their industrialization, in this instance to increase in production of the vegetable oils and fats industry including an examination where applicable of the possibilities for redeployment of existing non-productive capacities from developed countries and the necessary conditions for the creation of new capacities in developing countries. This was called for at the Lima Conference on Industrial Development and was subsequently endorsed by the General Assembly at its Seventh Special Session in its Resolution 3362.

/The emphasis

The emphasis at all times being on increased processing of the respective natural resources within the producing developing countries. Bearing this in mind, UNIDO felt that for this important sector it would be useful to organise informal regional meetings. The points to be covered have been very concisely and ably summarized by Mr. Matthews.

7. It will be clear from this list of objectives, that this meeting is different from an expert group meeting or seminar. Its task is to prepare the position and views of Latin American countries for the global level meeting and to decide what priority topics Latin American countries should raise in this forum. It is of course, envisaged that the consultations will be continuous; bearing in mind that in order to obtain results a specific time-span be observed i.e. an interval of no more than twelve months between each Consultation Meeting is desirable. Therefore, it may be appropriate to select only a few of the topics discussed here as those which should be raised at this, the First Consultation Meeting; other topics could be taken up at a later date. The proposals to emanate we hope should contain recommendations at the national, regional and inter-regional and global levels.

8. In these two sectors of agro-based industries, UNIDO expects Latin American countries to identify specific obstacles to the expansion of the industry and, if possible, to do this on the basis of specific projects. I emphasize this because the Lima Declaration clearly indicated that the ultimate goal of consultations is to "result in concrete proposals for inclusion in the development programme of participating developing countries". It is our view that to be practical and realistic, consultations must be based on specific examples and concrete cases of particular difficulties.

9. I would now like to offer some preliminary observations, as an indication of our thinking on some issues to be considered in examining the Vegetable Oils and Fats Industry, it being understood that UNIDO's technical experts are doing all the substantive preparation.

10. As you know, the system of consultations, including these regional preparatory meetings on different industrial sectors, is intended to help the developing countries raise their share of industrial output in the world from 7 per cent at present to 25 per cent by the year 2000. This figure of 25 per cent was arrived at after regional meetings which established the following targets:

Latin America	13.5 per cent
Asia	10 " "
Africa	2 " "

11. Of course, each sector of industry may make a contribution either less or more than 25 per cent. In the case of vegetable oils and fats I understand that the developing countries account for more than 50 per cent of world production of the raw materials, but that the actual proportion of these raw materials that are processed in developing countries is a much lower share of the world total.

12. We have chosen vegetable oils and fats as one of the industrial sectors on which to organize consultations in 1977 because the Lima Declaration indicated that these consultations should in particular, relate to industries processing raw materials exported by the developing countries.

13. Therefore, it may be that a common goal of the Latin American countries will be to ensure that in the future most of the oils that are exported as raw materials i.e. seeds in this sector are in future processed within the respective countries of the region.

/14. As

14. As a background for considering the topics which might be raised in an international forum, you will presumably be considering the volume of oil seed production that will be needed in Latin America during the period 1980 to 2000 and the possible changes in the pattern of consumption of different types of oil seed. In this connection, you may wish to consider a continuing institutional arrangement for discussion among Latin American countries on increased production and trade within the region and the measures that this will require at the national and regional levels. Of course, if any country requires assistance in this and in planning future projects at the national level UNIDO, with its accumulated experience from all regions of the world, is ready to provide operational assistance. In this connection, I would point out that Mr. Reddy who is a member of the UNIDO team at this meeting, serves as adviser to the countries in the Asian region from ESCAP Headquarters in Bangkok.

I am sure you will take the opportunity which his presence affords to learn about the experience of Asian countries in developing this industry.

15. The UNIDO Secretariat feels that this meeting in Latin America will make an important contribution to the identification of topics which should be discussed at a global level. It is not for me to tell you what I think these topics should be, rather the purpose of this meeting is to obtain your suggestions and I wish you a successful outcome to your discussions.

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(Santiago, 13 - 17 junio de 1977)

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ANNEX III

List of documents

- Document No. 1 - Provisional programme of the meeting
- Document No. 2 - "First progress report of the vegetable oils and fats study"- UNIDO
- Document No. 3 - "Production and external trade in fats and vegetable oils in Latin America "- Joint ECLA/UNIDO Industry Division
- Document No. 4 - Analysis of the present and future situation of the fats and vegetable oils industry in Venezuela by Michael Schneider
- Document No. 5 - Analysis of the production of fats and comestible oil and its relevance on Latin America by Javier Zaldivar
- Document No. 6 - The vegetable oils and fats industry in Paraguay by Miguel Angel Gonzalez

Other documents distributed during the meetings:

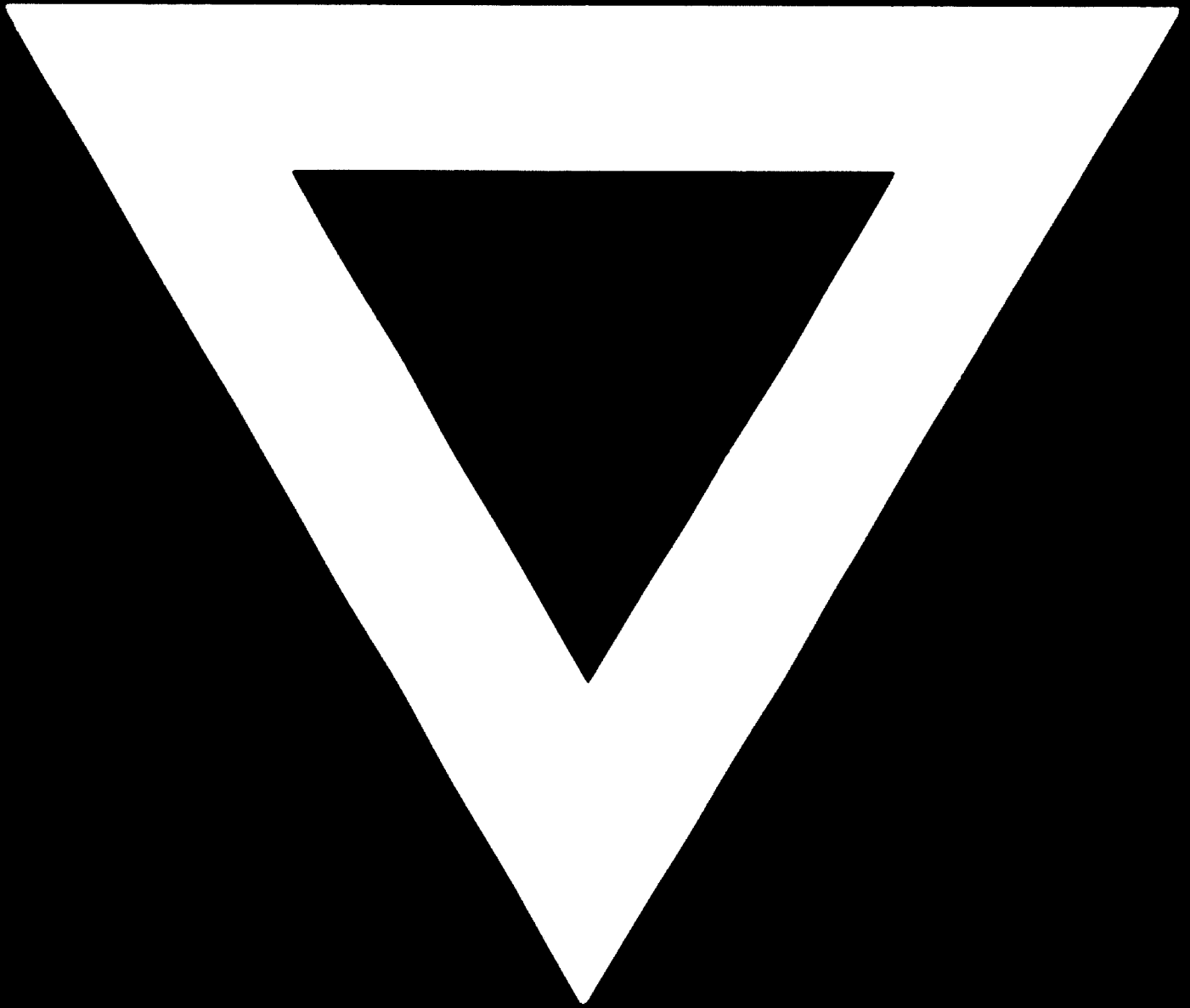
The current situation of soya and its future prospects in Brazil by
Hans Keunecke

The contribution of vegetable proteins to the solution of alimentation by
Hans Keunecke

Extract of an analysis by the FAO on the technical potential of the cultivation
of oleaginous plants - distributed by the FAO representative

Mexico 1971_1975 actual consumption figures published by the Secretariat of
Agriculture and stock-raising, Department of Administration
for Agricultural Economics - distributed by the representative
of Mexico

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