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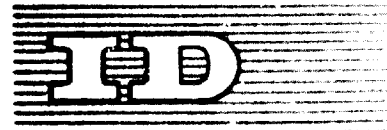
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COUNTRY STUDY REPORT

STATUS OF AGRICULTURAL MACHINERY INDUSTRY IN CHILE<sup>1/</sup>

by

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<sup>1/</sup> The views and opinions expressed in this paper are those of the author and do not necessarily reflect the views of the secretariat of UNIDO.

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

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STATUS OF AGRICULTURAL MACHINERY INDUSTRY  
IN CHILE

1. GENERAL PATTERN OF AGRICULTURE

A. Geographical distribution of land

Capacity for land use in Chile

Area  
(thousands of  
hectares)

- (a) Arable land without serious limitations  
Transverse valleys, longitudinal plain,  
eastern region, Isla Grande Chiloe and  
coastal region. 6,196.0
- (b) Arable land subject to limitations  
Hilly land of the coast region and central plain,  
foothills of the Andes and south coast range 5,728.0
- (c) Land which is not arable but offers perennial pastures  
associated with annual pastures and mountains with  
xerophytic vegetation, allowing permanent grazing  
of sheep, etc.  
Steppes from Aysén to Eastern Magallanes and the  
island of Tierra del Fuego. 4,365.0
- (d) Land which is not arable but provides annual pastures  
associated with mountains and xerophytic vegetation,  
suitable for seasonal grazing  
Andean steppes and heath land from Arica to Curico  
and transverse ranges in the coastal area 16,737.0

(e) Land which is not arable but supports trees and vegetation partly usable for timber

Andean woodland from Talca to Llanquihue, Andean woodland of Chiloé, Aysén and continental Magallanes, woodland of the coastal range and Isla Grande Chiloé, shrubland of Aysén, Magallanes, Maule and Concepción. 80,443.0

(f) Non-agricultural land

Deserts, high mountain area, glaciers, dunes and lakes. 20,707.0

Total area of the country 74,176.0

B. Land distribution in terms of cultivationDistribution of the arable area in terms of cultivation (thousands of hectares)

<u>Cultivation</u>	<u>Area</u>	<u>Percentage</u>
Cereals	1,044.5	18.8
Pulses	106.4	1.9
Tubers and roots	69.7	1.3
Other vegetables	42.3	0.8
Industrial crops	37.8	0.7
<b>Total for annual crops</b>	<b>1,300.7</b>	<b>23.5</b>
Vineyards	99.4	1.8
Fruit plantations	80.6	1.4
<b>Total for fruits and vines</b>	<b>180.0</b>	<b>3.2</b>
Sown pastures	487.4	8.8
Natural pastures	2,909.9	52.5
<b>Total pasture land</b>	<b>3,397.3</b>	<b>61.3</b>
Land lying fallow	665.4	12.0
<b>Total arable area</b>	<b>5,543.4</b>	<b>100.0</b>

Cereals include wheat, barley, oats, rice, maize and rye.

Pulses include vetch, beans, chick-peas and lentils.

Tubers and roots include potatoes and beets.

Industrial crops include sunflowers ("maravilla"), raps, flax, hemp and tobacco.

C. Distribution of farm land by size of farm

With regard to agricultural land ownership, land distribution and the size of holdings in Chile, the dominant characteristic has been the existence of a large number of small agricultural holdings accounting for only a small share of total arable and irrigated agricultural land area. On the other hand, a large part of this area is distributed among a relatively small number of owners, this irregular distribution being one of the reasons which led the national Government to legislate on the subject.

A process of land reform is now taking place, initiated by Act No. 16,640. By means of this Act, an attempt is being made to alter the land tenure pattern in Chile in order to give more people access to the land as producers and solve the problems of countering the food shortage, raising agricultural income and the living conditions of rural workers, and replacing a large proportion of agricultural imports by national products, with a consequent saving of foreign exchange.

The following table illustrates land distribution in Chile:

DISTRIBUTION OF FARM HOLDINGS IN CHILE BY SIZE

AREA OF HOLDINGS (hectares)	NUMBER OF HOLDINGS	%	AGRICULTURAL AREA (thousands of ha.)	%	ARABLE AREA (thousands of ha.)	%	IRRIGATED AREA (thousands of ha.)	%
Up to 9.9	75,627	50.1	192.5	0.9	153.5	2.8	43.8	4.0
10.0-49.9	41,420	27.4	876.5	4.0	573.1	10.3	86.7	7.8
50.0-199.9	20,820	13.8	1,838.9	8.5	1,018.9	18.4	154.2	14.1
200.0-999.9	9,842	6.5	3,846.3	17.8	1,735.4	31.3	411.6	37.5
1,000.0-4,999.9	2,554	1.7	4,523.7	20.9	1,378.4	24.9	268.5	24.5
5,000.0 and over	696	0.5	10,359.2	47.9	684.1	12.3	133.2	12.1
TOTAL	150,959	100.0	21,637.1	100.0	5,543.4	100.0	1,098.0	100.0



D. Population and current agricultural practices

1. Population

The population of Chile was 7.6 million in 1960 and its growth and projected future figures are estimated as follows:

<u>Year</u>	<u>Total population</u> (thousands)
1960	7,638.1
1965	8,588.1
1970	9,660.3
1975	10,897.4

The sex distribution of the total population shows a slight predominance of females but with an equalizing trend.

The growing rate of urbanization has been one of the most marked characteristics of the demographic picture in Chile; the rural population has decreased substantially and it is expected that three-quarters of the population will live in urban areas in 1975.

The following table illustrates what has been said above:

Changes in the urban population and  
projections for 1970 and 1975  
(in thousands of persons)

<u>Year</u>	<u>Urban</u> <u>population</u>	<u>%</u>	<u>Rural</u>	<u>%</u>
1950	3,589.8	58.7	2,530.4	41.3
1960	4,987.6	65.3	2,650.5	34.7
1970	6,884.7	71.3	2,775.6	28.7
1975	8,056.0	73.9	2,841.4	26.1

## 2. Agricultural practices

It may be said in general that, in the case of small farms of low profitability, animal-drawn machinery is used, all of it made in the country. The preferred animals are the horse in the central area and the ox in the southern area.

Studies are being carried out in order to find efficient equipment for working this type of holding; currently being tested are animal-drawn implement-carrying bars, various kinds of small cereal harvesters and other machines.

The other agricultural holdings are worked with tractors and tractor-drawn equipment; it may be said that, in general, the equipment and systems used are technologically up-to-date

## 2. PATTERN OF FARM MECHANIZATION

### A. Stock of agricultural machinery

<u>Machinery</u>	<u>Units</u>
Tractors up to 35 HP	8,507
Tractors of 36 HP and over	13,800
Mechanically-drawn ploughs	17,370
Animal-drawn ploughs	267,835
Disc harrows	21,017
Seed drills	9,225
Self-propelled harvesters	3,773
Stationary harvesters	4,926
Reapers	12,543
Rakes	9,118
Binders	5,344

### B. Pattern of mechanization and machinery used

The Chilean Development Corporation (Corporación de Fomento de la Producción) has carried out a study relating the cultivated area of the country to the number of machines in existence. In general terms, the results were as follows:

Area per machine (average)

201.2 ha cultivated per tractor

495.8 ha of cereals or similar crop per self-propelled harvester

129.8 ha of artificial pastures per reaper

555.1 ha of artificial pastures per mobile binder

In the most highly mechanized areas the number of hectares cultivated per tractor is 123.3.

With regard to self-propelled harvesters, the most highly mechanized provinces are:

Llanquihue with 120.1 hectares per machine;

Osorno with 146.4 hectares per machine;

Valdivia with 230.3 hectares per machine.

C. Production of agricultural machinery

The following types of agricultural machinery are being manufactured in the country in quantities capable of supplying the needs of the market:

Animal-drawn ploughs

Animal-drawn harrows (disc, spring-toothed, etc.)

Planet type cultivators

Animal-drawn hay-rakes

Animal-drawn reapers (assembly)

Spraying equipment for herbicides and pesticides, operated by power take-off or motor, with a tank capacity of 15,000 litres

Shoulder pack sprayers without motor

Sprayers with a capacity of 2,000 litres

Hammer mills

Attachments for self-propelled maize harvesters

Rotary cutters

Grader blades

Sub-soilers

Field cultivators

Water extraction pumps

Manure spreaders  
Fruit-sorting machines  
Automatic feeding machines for poultry  
Incubators for chicks  
Wine-harvesting equipment  
Potato planters with fertilizer-spreading attachment  
Discs for ploughs and harrows  
Broadcast system fertilizer spreaders  
Maize shellers  
Graders of up to  $2\frac{1}{2}$  cubic yards capacity  
Disc ploughs with three-point coupling  
Disc harrows, tractor-drawn

Every year the country has to import agricultural machinery to supply the needs of farmers, and these imports can be estimated as follows:

<u>Machinery</u>	<u>Units</u>
Tractors	2,400
Ploughs (tractor-drawn)	1,300
Harrows (tractor-drawn)	1,200
Seed drills	240
Self-propelled harvesters	240
Maize harvesting attachments	75
Choppers	180
Reapers	360
Hay-rakes	180
Balers	240
Fertilizer spreaders	250

The country obtains supplies of agricultural machinery from the markets that offer the best prices, accordingly, the greatest imports of tractors come from the European market; the same applies to self-propelled machines.

Price is one of the principal factors considered in our country with regard to the authorization of imports of agricultural machinery; accordingly, the importation of equipment incorporating advanced technology that would signify an increase in price is not always permitted, when it is possible to replace it by means of simple equipment.

The present trend is towards a continuous increase in the power of tractors; most tractors imported have engines of more than 60 HP.

There is no doubt that the land reform being undertaken by the country will lead to an increase in the demand for agricultural equipment.

The demand for agricultural machinery during the coming quinquennia has not yet been determined; work on this subject is in hand.

### 3. MANUFACTURING INDUSTRIES AND AUXILIARY INSTALLATIONS

#### A. Industries manufacturing agricultural machinery

The Chilean Development Corporation (CORFO) carried out a study in order to ascertain production possibilities and to obtain information from industrialists already manufacturing agricultural machinery, both regarding their expansion or diversification plans and the difficulties they were encountering in this type of production.

The study made by the Development Corporation showed that the country had technical capacity and installations that could be made use of in the manufacture of agricultural machinery; however, there was not sufficient expansion in this type of industry, for the following reasons, among others:

The lack of a system of loans to enable the farmer to buy national products, so that manufacturers could not compete with imported equipment, which was generally marketed on a medium-term basis (3 to 4 years) with loans granted by the foreign supplier through the Corporation.

Lack of knowledge of the market by the manufacturer, with the result that production and sales targets were planned for small areas in the immediate vicinity of the factory.

The lack of a suitable system for the distribution of machinery throughout the country.

The lack of guidance to ensure that industrialists would manufacture certain equipment and models in accordance with the requirements of the country's agriculture.

The lack of technical assistance, with particular reference to the design of equipment suitable for national agriculture.

The inability of some factories, despite idle installed capacity, to produce economically and efficiently as their equipment was not suited to the manufacturing processes or was obsolete.

The inability of national manufacturers to produce for stock owing to the lack of financing.

This brief review indicates the situation that existed in the country with regard to the development of the industry for the manufacture of agricultural machinery; it served as the basis for formulating a programme in this field, which is now in full swing.

At the moment there are twenty-five factories manufacturing agricultural machinery distributed throughout the country. Half of these are taking part in the Corporation's programme for the manufacture of agricultural machinery, which is described in section 4.

The equipment being manufactured is indicated in section 2 C.

#### B. Related engineering industries

Before referring to related engineering industries, it should be remembered that Chile is a producer of raw materials, including iron and steel.

The country has many factories that can manufacture parts of machines; there are foundries for iron, steel and non-ferrous metals that produce articles of good quality. Most of these are concentrated around the capital, but there are some in various provinces.

Our country is developing an automobile industry, so that subsidiary industries are well advanced.

#### 4. POLICY FOR THE AGRICULTURAL MACHINERY INDUSTRY

##### A. Government incentives

With the aim of stimulating the manufacture of agricultural machinery, the Development Corporation formulated a programme aimed at giving this type of industry suitable incentives; its objectives are as follows:

- (a) To supply our agriculture with machinery that the country is capable either of producing completely or of assembling.
- (b) To produce agricultural machinery suited to conditions in the country.
- (c) To improve the utilization of installed capacity in industry.
- (d) To utilize and develop the technical capacities of Chilean industrialists and workers.
- (e) To achieve import substitution, with consequent savings in foreign exchange.
- (f) To create new employment openings.
- (g) To create additional export openings.
- (h) To make use of existing resources, particularly the production of iron and steel, special steels, etc.

In view of the importance of this situation and the prospects for the manufacture of agricultural machinery, a policy was laid down giving the programme wide and general scope, so as to form a stable and lasting structure favourable to the development of larger factories, with the aim of supplying national demand with products of good quality at prices competitive with those of imported machinery.

It was considered advisable to commence production by devoting one factory to complete lines of products, so that production batches would be economic. This was intended to solve the disadvantage of a small market and to give the enterprise a solid economic basis.

According to the policy to be followed, the priority for the commencement of production programmes for capital goods will be determined, after the groups of machinery have been defined, according to the nature of their functions. Such priorities are determined in the light of market studies, technico-economic possibilities, the existence of established industries, the percentage of national components in manufacture, etc.

After priorities have been established, the suitable process for the production of each group of machinery is studied on the basis of existing industry or the establishment of enterprises to solve any particular problem.

As far as practical implementation is concerned, it is considered advisable to study in each case the desirability of making a direct award or of calling for bids for specific preliminary projects. In each project, an analysis is made of the possibility of manufacturing the entire machines within the country, of integration by stages or of integration under a system of complementarity.

Then the most suitable form of enterprise is studied, making use of established industry and the incorporation of national and/or foreign capital with national public or private capital.

For projects in hand, control of production (volume, suitability, prices, etc.) and of the quality of the product is carried out by the Development Corporation.

The national programme for the manufacture of agricultural machinery envisaged two basic stages, the first of which consisted in:

1. Instituting a special register of manufacturers of agricultural machinery so as to make it possible to select industrialists to take part in the programme.
2. Setting up a system of loans that would make it possible:
  - (a) For the farmer to purchase nationally produced machinery on normal conditions and terms;
  - (b) To stimulate the farmer to buy nationally produced machinery, introducing a line of credit without readjustment provisions.
3. Studying the possible market in order to give industrialists guidance regarding the types, models and quantities of machines and implements necessary, thus avoiding excessive diversification.
4. Carrying out pre-feasibility studies and determine priorities.
5. Preparing guidelines for the presentation of specific projects, which would be studied and assessed by the Corporation.



6. Testing prototypes both from the point of view of the materials and the behaviour of the machine in practice and later to carry out permanent quality control.

The second stage of the programme consists in:

- (a) The development, assessment and selection of specific projects for the manufacture of equipment of the greatest agro-economic interest.
- (b) The most important projects being carried out within the programme are those for the manufacture of:
  - Ploughs and harrows (under licence from Ransomes).
  - Binders, reapers, choppers, side discharge rakes, hay balers and rotary cutters.
  - Attachments for self-propelled maize harvesters.
  - Seed drills for cereals, equipment for small holdings, meadow regenerators.
  - Cultivators.
  - The assembly of self-propelled harvesters for cereals.

At the moment the Corporation has already received projects for the manufacture of the above-mentioned equipment and it is making a selection and assessment of the various applicants.

The establishment of the "National Register of Manufacturers of Machinery" in the Development Corporation has been an important incentive to industrialists in the country manufacturing agricultural machinery.

The reason for this lies in the fact that some 80 per cent of imported machinery is marketed with the aid of credit granted by the foreign supplier. The establishment of the "register" allowed industrialists access to a very advantageous line of credit for the marketing of their products and thus enabled them to compete with imported machinery. (A copy of the rules governing the register is attached).

On the other hand, the National Committee for the Mechanization of Agriculture, a body that inter alia regulates imports of agricultural machinery, does not permit imports when there is some equipment manufactured in the country which in point of quality, efficiency and price is competitive with the foreign product.

Lastly, the Chilean Development Corporation is participating directly in the development of this type of industry by means of a capital contribution, as is the case with "Ransomes Chilena", a factory for ploughs and harrows.

B. Research, design, development and experimental centre

The Development Corporation is in the process of setting up a National Agricultural Mechanization Centre.

The Centre is situated in the town of Los Andes, 70 km from the capital.

An agreement has been made with the United Kingdom National Institute of Agricultural Engineering (NIAE) to obtain the technical assistance required. For this purpose the Institute has twice sent an expert to Chile and will shortly be sending an expert for a period of two years.

Studies of mechanization of various types of cultivation have been carried out and testing of both domestically manufactured and imported equipment is continuing.

It is a matter of national policy that any agricultural machinery to be imported, of a make or model not previously brought into the country, should be tested at the Centre, chiefly from the point of view of ensuring that it is suited to Chilean farming conditions.

With regard to domestically manufactured machinery, the prototype must be tested at the Centre so that any modifications that seem necessary may be made before marketing is authorized.

Chile does not have the technical personnel to design equipment. Most of the machinery manufactured is copied from imported models.

The Development Corporation has encouraged industrialists to seek licences on royalty terms, with a view to the technological improvement of the equipment manufactured or which it is proposed to manufacture. Discs for ploughs and harrows, for example, are made under licence from W. A. Tyzack and Co. Ltd., of Sheffield, England; sprayers are to be made under licence from John Bean (F.M.C.) of the United States; hammer mills have been made under licence from Wetmore (United States), etc.

In this way, it is hoped partly to make up for the lack of technical assistance and at the same time to keep up-to-date with technical progress.

C. Future needs

The principal constraint on the development programme is the limited Chilean market, the effect of which is that the quantities to be manufactured are uneconomic if wholly manufactured within the country. Integration and complementation with other countries is therefore being encouraged, instead of complete manufacture; this applies to advanced machinery such as self-propelled harvesters, binders, etc.

Technical assistance, especially for the existing industry, is given importance within the current programme and an effort must be made to raise the level of qualifications of Chilean personnel.

(Signed) LAUTARO OSSANDON  
Agronomist  
Chile

**CHILEAN DEVELOPMENT CORPORATION**  
**EXECUTIVE COMMITTEE**

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**SECRETARIAT-GENERAL**

Reporting office: No. 01559  
20-12.67

**REGULATIONS FOR THE ESTABLISH-  
MENT OF A NATIONAL REGISTER OF  
MANUFACTURERS OF AGRICULTURAL  
MACHINERY AND OF A SYSTEM OF  
LOANS FOR PURCHASERS OF SUCH  
MACHINERY**

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I inform you hereby that the Executive Committee, in Extraordinary Session No. 204, held on 18 December 1967, adopted the following resolution:

PART I

**National register of agricultural machinery manufacturers**

1. The Executive Vice-President shall be authorized to open a register of manufacturers of agricultural machinery, hereinafter referred to as "the Register", in accordance with the rules specified below.
2. Any firm manufacturing agricultural machinery which is already established in Chile or wishes to establish itself, and which is interested in benefiting from the system of loans for agricultural machinery granted by the Corporation, must first apply for inclusion in the said Register.
3. The firms to which the preceding section applies, in order to be included in the Register, must:
  - (a) Possess sufficient capital in the form of plant and equipment suitable for manufacturing agricultural machinery;

- (b) Have the experience and technical knowledge or be in a position to obtain the technical assistance necessary for the manufacture and servicing of agricultural machinery;
  - (c) Manufacture machinery suited to the national requirements and/or spare parts or assembly parts, previously approved in prototype by the Director for Agriculture, who shall, before granting his approval, submit the equipment to such laboratory and field tests as he thinks fit;
  - (d) Sell the machinery, parts or spare parts at prices competitive with similar imported parts and equipment.
4. The requirements set out under (a), (b), and (d) in section 3 shall be evaluated by the General Technical Assistant Director, on a report from the Directorate for Agriculture; he shall issue a certificate specifying, inter alia, the special guarantees to be given to users of the equipment by the manufacturers, if the circumstances warrant it.
5. Every manufacturer admitted to the Register shall sign a contract with the Corporation in which, in addition to the present rules, in so far as they apply, may be stipulated additional qualifications related to the particular case of the said firm.
6. The manufacturer must supply the Corporation with full information on production costs, overheads and other expenses incurred in the manufacture of each type of equipment.

The Executive Committee of the Corporation shall determine in the light of such information the maximum selling price of the machine to the farmer. The Executive Committee shall likewise determine the maximum selling price to the farmer of replacement parts.

Each firm must make publicly available the lists of prices authorized by the Corporation, which may publish such lists when it thinks fit.

7. The manufacturer shall hold a sufficient stock of machines and parts to satisfy the needs of farmers.

To supervise the fulfilment of this obligation, the Corporation may make arrangements, with the assistance of associations, farm co-operatives, etc., to receive claims of failure to maintain adequate supplies from farmers in any part of the country.

8. Domestically manufactured machinery, parts and spares may be distributed directly by the manufacturer through distributors of his choice, subject to approval by the Director for Agriculture of the Corporation.
9. The manufacturer and distributors must supply at the request of the purchaser of the machinery and at cost price the technical assistance required for its use, adaptation, handling and maintenance; in particular, they must supply a handbook describing its operation, maintenance and spare parts.
10. The manufacturer shall undertake to provide such samples of machinery parts and spares of his manufacture as may be required by the Corporation for periodical quality control. The manufacturer shall likewise guarantee a standard of quality judged satisfactory by CORFO.
11. The manufacturer must give the purchasers of agricultural machinery the guarantees referred to in the certificate mentioned under 4 above with regard to its satisfactory working.
12. The manufacturer shall co-operate with the Corporation in its plans concerning the use and adaptability of machinery in the manner indicated to him in each particular case.
13. The Executive Committee shall, on a substantiated request from the General Technical Assistant Director, following a report from the Directorate for Agriculture, strike off the Register any firm that has not complied with its formal commitments to the Corporation, or with the Corporation's rules, particularly in the following cases:
  - (a) Failure to use the whole or part of a loan for the purpose for which it was granted, without prejudice to any civil penalty incurred under the relevant contracts.
  - (b) Sale of machinery and/or parts at prices higher than authorized.
  - (c) Failure to supply true data in its reports, as may be adjudged exclusively by the Corporation.
  - (d) Repeated, justified complaints, in the exclusive judgement of the Corporation, as to the availability of spare parts.
  - (e) When the standard of quality of machinery, parts and spares falls below the minimum normal requirement, in the judgement of the Corporation.

PART II

Loans to manufacturers

1. Any manufacturer duly entered in the Register may obtain a loan for the installation, extension or operation of plant devoted to the manufacture of agricultural machinery.

Such loans shall be governed by the rules issued in the matter by the Corporation.

PART III

Loans to users

1. The Corporation shall grant loans for the purchase of equipment and/or parts manufactured within the country by manufacturers duly entered in the Register under the following conditions:

- (a) Short-term: Amount: One hundred per cent of the manufacturer's net price.  
Term: Up to 2½ years.  
Repayments: Equal, successive annual instalments.  
Interest: Twelve per cent.

In the event of late payment of the instalments, the interest rate shall be raised to the legal maximum, and applied to the overdue instalments until they are paid. Likewise, in the event of non-payment of any portion of the interest, the interest rate shall be raised to the legal maximum and applied to the total debt.

- (b) Medium-term: Amount: One hundred per cent of the manufacturer's net price.  
Term: Up to 5 years.  
Repayments: Equal, successive annual instalments.  
Interest: Seven per cent annually: 10.5 per cent in the event of late payment.  
Readjustment: According to changes in the Consumer Price Index, pursuant to article 186 of the Act (No. 16640) on Agrarian Reform.

2. Each Regional Office of the Corporation shall supply to interested parties information on the domestically manufactured machinery and parts available, together with the names of the manufacturers and distributors.
3. The applicant must submit to the appropriate Provincial Agency of the Corporation, on the forms provided, an application with all the information requested in the said forms, to prove the technical and economic justification of the proposed investment.
4. Applications for loans shall be decided upon in accordance with the rules of the Corporation in that regard.
5. The user must provide the Corporation with full information on the quality and use of the machinery purchased with the loan.
6. The Executive Vice-President is authorized to invest, during the year 1968, up to the amount of ..... in making loans to users for the purchase of agricultural machinery and/or parts manufactured within the country.
7. Expenditure incurred under the present resolution shall be charged to the corresponding item in the Capital Budget approved for 1968.

#### PART IV

##### Promotional measures

1. In order to promote and stimulate the production and marketing of domestically manufactured machinery, the following promotional measures are adopted:
  - (a) When the established manufacturers are satisfying the requirements of the national market, in terms of quantity and quality, for a particular piece of equipment and/or parts, the Corporation will not promote the installation of new factories to manufacture the same.

The Corporation will likewise suspend the granting of loans and facilities of any kind for the importation and sale of such types of machinery.

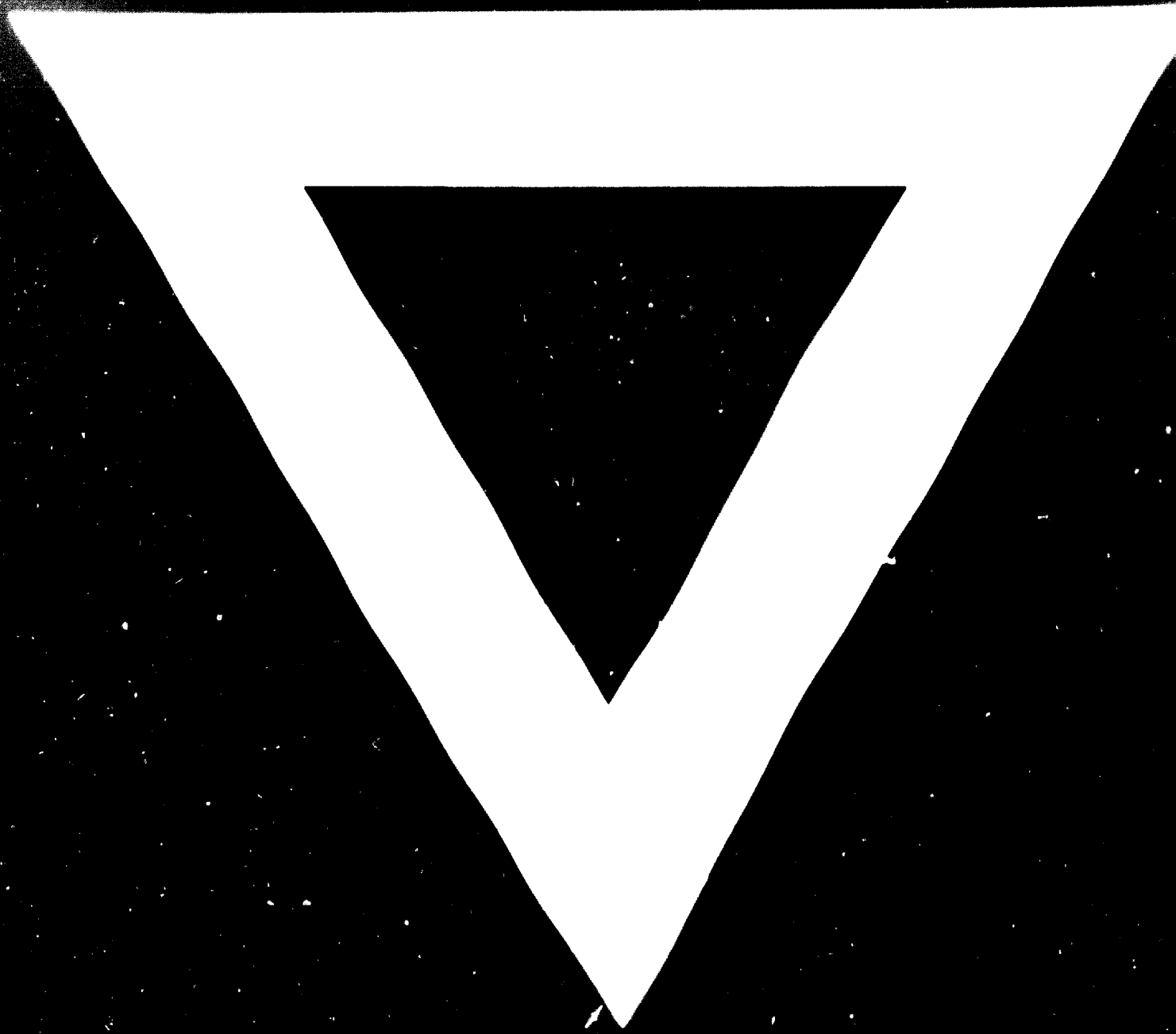


- (b) Where domestic production is not sufficient to supply the internal market, the Corporation will authorize imports of the machinery lacking, indicating the quotas that may be imported, for which loans shall be granted as necessary pursuant to the regulations issued.
- (c) To promote the use of domestically manufactured machinery, the Corporation will take all steps it thinks fit for the purpose, such as arranging exhibitions, demonstrations, handling and maintenance training courses, etc.

Communicated for your information  
CHILEAN DEVELOPMENT CORPORATION

(Signed) Alberto Zaldivar L.  
Secretary-General





**17 . 12 . 73**