

UNITED NATIONS  
ECONOMIC  
AND  
SOCIAL COUNCIL



LIMITED  
E/ICEF/L.950  
19 September 1956

ORIGINAL: ENGLISH

UNITED NATIONS CHILDREN'S FUND  
Programme Committee

Recommendation of the Executive Director for an Allocation  
SPAIN  
Milk Conservation a/

1. The Administration recommends an allocation of \$620,000 to Spain to provide equipment for a milk drying plant in Granada and for three milk sterilization plants: in Madrid, Cordoba, and Malaga. Since erection and operating expenses will be borne by the local enterprises, Government matching will be invested in free milk distribution estimated to cost an equivalent of US \$605,000 annually or a total of \$3,025,000 over a five-year period of distribution from the date that dried or sterilized milk becomes available. A further request for UNICEF aid is foreseen for Phase II of this programme in which the aim would be to produce 5,000 tons of milk powder annually for free distribution to 650,000 children.
2. The Granada drying plant, for which UNICEF equipment is now asked, will be erected as an adjunct to the fluid milk plant presently under construction. A thousand tons of skim or low-fat milk powder made in the drying unit will be distributed annually to 125,000 children for 200 days of the year, at 40 gramme rations, principally in the south of Spain, to continue school or pre-school feeding programmes now using imported dried milk. A minimum of 1,800,000 litres of milk from the sterilization plants, standardized at a low fat content, will be distributed free for 200 days annually to 36,000 pre-school and school children and mothers in the provinces in which the three dairies are located.

a/ First request for UNICEF aid to this programme.

/Background

### Background

3. Background information on problems affecting mothers and children in Spain was provided the Board in E/ICEF/L.642, August 1954, which recommended assistance to the development of three maternal and child health programmes. A joint FAO/UNICEF survey was made in Spain in May 1955, in which the Agriculture Economics and Nutrition Divisions of FAO participated. The following summarizes the situation described in the report and as further substantiated by subsequent visits by UNICEF representatives.

### Nutrition

4. Spain suffered severe malnutrition during the Civil War and in the decade which followed. Apart from overall economic improvement and some improvement in the food situation, emphasis on public health services has helped to reduce infant mortality rates significantly. However, the growth of pre-school and school-age children is often retarded due to protein shortages coupled with slow development of sound child feeding practices.

5. Cereals, fruits and vegetables and olive oil are consumed in large amounts. Fish is available throughout Spain but is usually expensive. Only small amounts of meat and eggs are eaten and milk consumption (fluid and by-products) is 1/5 litre daily per caput.

### Dairying Developments

6. The total production of cow's milk is steadily increasing whereas milk production from sheep and goats remains stationary. The dairy industry has developed most extensively in the northern part of the country where most of the milk by-products are now produced, and this area also supplies fluid milk to cities in the central part of Spain, including Madrid. Future milk production in the southern part of Spain is associated with the extension of presently irrigated areas and new irrigated areas to be developed during the next ten years adjacent to some of the principal cities in that region, particularly Cordoba, Granada and Malaga.

/7. Development...

7. Development of the dairy industry has been promoted by the policy of the Government over the past few years. One of the elements essential to an increase in production and per caput consumption of milk is the provision of stable markets. To provide better marketing facilities as well as to safeguard the hygienic condition of the milk for sale to the public, the Government in 1952 created a legal basis for the establishment of city dairies. A few central dairies have received import licenses for equipment under this programme but for the greater majority of plants it has not so far been possible for the Government to issue licenses, primarily because of a shortage of foreign exchange.

#### Distribution of United States surplus products

8. Through non-governmental organizations, large amounts of United States milk products have been distributed throughout Spain since the autumn of 1954. By April 1956 dried milk distribution was being made to over two million children in 19,445 public schools. A wide distribution through MCH, institutional and other welfare channels reaches a further million and a half children and needy people. In all some 30,000 tons of milk powder are being distributed annually.

#### Objectives of the proposed plan of operations

9. The principal objectives of this project are the following:

- a) the production of skim-milk powder and of low-fat sterilized milk to allow supplementary feeding programmes to continue on a selective basis;
- b) the improvement of mother and child health through hygienic processing and marketing of milk;
- c) the stimulation of increased production and improved production methods by creating more stable markets for producers' milk;
- d) the provision by the Government of a sufficiently

/high priority...

high priority in its allocation of available foreign currencies to ensure the importation of all the equipment needed for milk processing and related equipment of equivalent capacity to that provided by UNICEF.

10. In order to fulfil the above objectives, in particular the continuation of supplementary feeding programmes, UNICEF assistance has been requested in two stages. The first stage, the subject of this recommendation, includes provision for one drying plant and three sterilization units. The second stage is to be the subject of continuing studies and may at some future time include provision for further drying facilities, either at new sites or by modernizing and enlarging existing facilities. The aim of the further expansion would be to produce a total of some 5,000 tons of powder for free distribution annually. This is only one-sixth of the amount of milk powder now being received from the United States, but for local budgetary reasons it would not be possible to purchase larger quantities for free distribution. The proposed plan has been developed in accordance with the recommendations made by the FAO/UNICEF survey group which visited Spain in May 1955.

#### Proposed plan of operations

11. A drying plant will be erected in Granada, as an adjunct to the consumer dairy now under construction. Sterilization plants will be established in Cordoba and Malaga (in southern Spain where the need for increasing the consumption of safe milk is the greatest) and in Madrid.

12. Ownership. The drying plant at Granada will be operated by an Agricultural Society of local producers. The sterilization plants at Cordoba and Malaga will be operated by a producers co-operative of the respective areas. The sterilization plant at Madrid will be controlled by a trade syndicate. It is the Government's policy that all industrial activity should be carried out by co-operative or private ownership and not by the State itself. The dairies concerned will amortize the value of the equipment received in payments to the Government over a seven-year period.

/Production...

Production and plant capacities

13. Drying Plant. Present production in the Granada "Vega" (plain) is about 30-40,000 litres daily. Potential milk production by 1960, however, can be as high as 100,000 litres daily if an outlet such as the drying plant is assured ahead of time. The "Vega" plain has had 111 square miles under irrigation for centuries. A further 105 square miles of irrigated land are currently being developed, and plans are to irrigate an additional 60 square miles of farm land soon. As mechanization takes over, farmers are replacing draught animals with dairy cows to utilize profitably feed that might otherwise be wasted, and to provide manure needed to maintain soil fertility. The increasingly large areas seeded to alfalfa and other feed crops and the ease of collecting milk in this flat, concentrated area with a network of roads ensure that adequate quantities of milk can be produced and collected in the area to use the full capacity of the drying plant within a few years' time. The capacity of the plant would be 2,500 litres per hour, allowing it to produce 1,000 tons milk powder annually, this being the target for 1960.

Sterilizing plants: The three sterilizing plants will have a capacity of 30,000 litres daily per plant or an annual capacity of 32,850,000 litres for the three plants. Thus: production in the Cordoba area (pop. 165,000) is now 25,000 litres a day and the local potential for increase by 50 per cent is good. A sterilizing plant with a capacity of 30,000 litres per day would be set up in this locality.

Malaga has a population of 295,000. The present milk consumption is very limited, averaging less than 1/10 litre per person. It is estimated that within an area of 25-30 kilometers, it will be possible to collect approximately 30,000 litres of milk daily. A sterilizing plant with a capacity of 30,000 litres daily will be established in this city.

The Madrid (pop. 1,618,000) area presents a complex picture of milk produced in town byres in the surrounding province and received daily by railway from the northern provinces. In all, some 350,000 litres are retailed in the city. The dairy for which UNICEF's equipment is intended,

/will handle...

will handle primarily milk produced outside the urban area. The total daily capacity will be in the order of 100,000 litres of which 70,000 will be pasteurized (with equipment provided by the enterprise) and 30,000 litres sterilized.

#### Distribution Plans

14. Milk powder: The entire output of the drying plant will be purchased by the Ministry of Education and distributed free, primarily to the School Feeding Service in the south of Spain. At 40 grammes of skim milk powder per child per school day, 125,000 children would benefit for 200 days a year. However consideration will be given to producing part of the output with a fat content suitable for infant feeding, for use in the health services. In order to allow the plant to operate economically, yet to sell powder at the lowest possible cost, remunerative outlets for the butterfat are planned, primarily through the sale of high quality butter and also through the sale of cream to local manufacturers of ice-cream.

15. Sterilized liquid milk: The Government undertakes to distribute free 1,800,000 litres of low-fat sterilized milk annually to 36,000 pre-school and school children and mothers.

16. The assisted municipalities and fifteen major non-governmental organizations which are at present distributing imported milk powder, are expected eventually to distribute well over ten per cent (3,285,000 litres) of the milk from sterilizing plants free to children. Distribution will take place in the respective cities where the dairies are located, and in the peripheral towns in the provinces.

#### Assignment of responsibility

17. The Government would assume overall responsibility for carrying out the plan. Responsibility would be invested in the Inter-ministerial Commission for International Assistance to Children, created by the Decree of June, 1954. This Commission would assign to the Government departments the responsibility for free distribution.

18. The Ministry of Agriculture (Directorate General of Animal Husbandry) and the Directorate General of Public Health will be technically responsible, on behalf of the Government, for supervising and facilitating the execution of this plan.

19. The dairy enterprises will be held responsible, through the signature of specific agreements or contracts with the Government, for the fulfillment of their obligations, which include all the operations of milk collection, plant operation and processed milk distribution.

Target time schedule

20.	<u>Drying Plant</u>	<u>Sterilization Plants</u>	
	<u>Granada</u>	<u>Madrid</u>	<u>Cordoba &amp; Malaga</u>
Placing of contracts for land and buildings	1st. Quarter 1957	Underway	1st. Half 1957
Buildings ready and UNICEF equipment delivered	1st. Quarter 1958	1st. Quarter 1958	2nd Half 1958
Distribution begins	October 1958	2nd Half 1958	1959

UNICEF Commitments

21. UNICEF would provide equipment for the four plants at an estimated cost of \$565,000, plus \$55,000 for freight or a total of \$620,000 as follows:

- A. Drying Plant \$150,000
- a) Milk reception, clarification, cooling and storage
  - b) Milk separation
  - c) Milk preheating, evaporating and drying at 2500 l.p.h.
  - d) Powder sifting, filling and packing
  - e) Butter making and low temperature storage
  - f) Milk piping and fittings
  - g) Simple laboratory equipment for powder moisture testing

/B. Sterilization

B. Sterilization Plants

1) <u>Cordoba and Malaga</u>	(\$150,000 each) \$300,000
a) Milk reception, clarification, cooling and storage tanks	
b) Milk separation	
c) Milk sterilizing, bottle washing, bottle filling and capping	
d) Conveyors	
e) Milk vats	
f) Milk piping and fittings	
g) Laboratory equipment	
2) <u>Madrid</u>	\$115,000
a) Milk storage tanks	
b) Milk sterilizing, bottle washing, bottle filling and capping	
c) Conveyors	
d) Special milk vats	
Total equipment	\$565,000

C. <u>Freight</u>	55,000
Total recommended allocation	<u>\$620,000</u>

FAO approval and participation

22. This project has the technical approval of FAO. The Agriculture, Economics and Nutrition Divisions of FAO participated in the survey and in developing the programme outlined in this recommendation. Upon request FAO will provide advisory services in connexion with this project and with the broader aspects of nutrition education as well.

Government commitments

23. The Government would assume the following commitments:
- a) to provide, or ensure in the name of the four dairy enterprises, all personnel, materials, supplies, equipment and financing necessary for the execution of this project, except as provided by UNICEF in Para. 21 above.

/b) to authorise...



- b) to authorise early import licenses for:
  - i) all equipment and transport not furnished by UNICEF which may have to be imported;
  - ii) all equipment required for milk processing and related equipment of equivalent capacity to that provided by UNICEF;
- c) to include, in the budget of the drying plant, sufficient funds to provide for fellowships for the plant manager and the quality control expert;
- d) to ensure that these dairy enterprises provide the following (facilitating when required with loans through the "Instituto Nacional de Colonizacion" or other sources):
  - i) necessary land for dairies and services; buildings, services (water, steam, electricity, sewage);
  - ii) boilers and refrigeration;
  - iii) equipment necessary for the operation of the plants other than that provided by UNICEF;
  - iv) bottles, bottle caps, crates;
  - v) transport facilities for raw milk collection and processed milk distribution at an estimated cost of 100,000,000 Pesetas (\$2,500,000);
- e) to arrange for the free distribution to be financed (as described in Paras. 14-16 above) and to provide the Ministries and Departments involved, principally the School Feeding Service, the Directorate General of Public Health and the provincial and municipal authorities, with budgetary allotments sufficient to cover required purchases and transportation and distribution costs.

24. An estimate of these annual costs is as follows:

	<u>Pesetas</u>
Powder (1,000 tons)	16,000,000
plus freight and distribution	1,000,000
Fluid Milk	6,750,000
plus distribution	375,000
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Total approximately	24,125,000

Estimated total Government matching therefore would be equivalent to US\$605,000 per year or a total of \$3,025,000 over the seven year period to be covered by the plan of operations.