
UNIT 6 OPERATION FLOOD PROGRAMME

You may imagine that the phrase 'operation flood' has some relation to rain or water. Actually it refers to the tremendous increase in milk production as a result of organising dairy farmers on the basis of the concept of a cooperative.

In this unit you will learn about the various programmes run by the Government to improve milk production and also to increase the income of the farmers.

Structure

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6.0 OBJECTIVES

After studying this unit, you will be able to :

- comprehend the Government's programmes for improvement of the dairy sector,
- comment on milk production and its enhancement,
- define the objectives and achievements of the Operation Flood Programme, and
- appreciate the benefits of being a member of a dairy co-operative.

6.1 INTRODUCTION

The development of Animal Husbandry is an integral part of the programme of diversification in agriculture. By diversification, we mean the farmers take up different enterprises (business activities) on their farms. This helps the farmers in reducing the risk of losses on their farms. Even if anyone enterprise fails due to bad weather or other factors, the farmers can have income generated from other enterprises. It also helps the farmer in using the unutilised resource, mainly family labour. It adds to the total income of the farmer. Many times, Animal Husbandry enterprises, specially dairy enterprises, will act as complementary enterprises to crop activities, i.e. cattle can be fed with the byproducts of crops like straw and the manure generated from cow dung can be used for the crops.

Thus you see that dairy enterprises have a very important role to play in Indian agriculture. In fact, almost all those engaged in agriculture have some cattle in their homes. However, the dairy enterprises in the rural areas were organised in an old fashioned manner, without much emphasis on earning or profits. Because of this, the total production of milk in the country was also very low. Hence, the Government took the initiative to improve milk production in the country in the late sixties, and a series of programmes were implemented to achieve this objective.

At present, dairy enterprise is taken up as a business with an eye on profit. Thanks to the schemes of the Government, the farmers are more serious about their cattle than they were before. Strengthening of marketing facilities for milk and milk products have also helped in this direction.

6.2 MILK PRODUCTION

The production of milk in India has increased substantially over the last 15 years, as can be seen from the table below:

Table 6.1: Milk Production in India (in million tonnes)

Year	Production
1970-71	21.0
1971-72	22.5
1979-80	30.33
1981-82	34.30
1984-85	38.80
1985-86	42.30

Consequently, the per capita availability of milk (i.e. milk available per person per day) in India increased from about 110 gms in 1969 to 112 gms. in 1971-72, 137 gms. in 1981-82 and 154 gms in 1985-86. Thus it can be seen that the production of milk and its availability has consistently increased in India over the last 15 years.

The State and Central Governments have been assisting the farmers in achieving increased milk production over the years.

6.3 GOVERNMENT PROGRAMMES FOR CATTLE IMPROVEMENT

To increase the productivity of milch animals (i.e. cows and buffaloes yielding milk) 500 key village blocks and 122 intensive cattle development projects have been established during the Sixth Five Year Plan. Frozen semen stations have been established in various states to accelerate cross-breeding of cattle with exotic dairy breeds. This programme helps in getting offsprings (calves) which grow up to be better yielders of milk.

At the end of the Sixth Plan period there were 14,849 veterinary hospitals in the country. There are also 19,286 veterinary first-aid centres established in the country. All these measures have led to taking animal health care to the door-steps of the farmers.

The Central Fodder Seed Production Farm at Hesarghatta (near Bangalore in Karnataka) is fully developed and it has reached a production level of 1600 quintals of improved seeds per annum. Growth of green fodder is a pre-requisite to the development of the dairy industry. Hence, production and distribution of improved fodder seeds will help to achieve increase in milk production in a big way.

The Central Government has set a target for milk production in 1989-90 at 51 million tonnes which means milk production must grow at an annual rate of 5.6 per cent from 1984-85. To achieve this objective, many programmes have been evolved for these five years.

The major objectives of Animal Husbandry development programmes during the Seventh plan are 1) to provide infrastructure necessary to achieve accelerated growth rate 2) to consolidate the gain achieved by previous programmes 3) to cover large sections of rural population by helping them increase their employment and income through livestock rearing.

The major contributor to the enhanced production of milk and milk products in India is the initiation of the operation flood programme.

Check Your Progress

1 What is a dairy enterprise ?

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2 Dairy enterprise is complementary to Crop enterprises. Explain.

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3 List the Government's effort to develop the dairy enterprise in India.

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6.4 OPERATION FLOOD

The programme popularly known as Operation Flood was initiated in India with the main objective of increasing milk production and organising dairy farmers for improvement of their incomes based on co-operative concepts. Under this programme, the farmers producing milk are organised into a co-operative society of milk producers at village/block level. All such societies in a state are federally linked to a co-operative milk producers union at the state level. All producers of milk who are members of the co-operative society can contribute their milk (however small the quantity) to their respective societies. The milk will be collected through a well-knit transport system and transported to milk processing plants which are run by the federation. In the processing plants the milk is chilled and supplied to the consumers, mainly in the semi-urban and urban centres based on the demand for raw milk. The milk which is in excess of demand is processed into milk products like butter, ghee and milk powder. Thus, under this scheme, the farmers enjoy a very good network of marketing of milk which otherwise was not possible. You should remember that the operation flood programme is only a start to many more such schemes over a long period, so that even if the project stops functioning, the system can run on its own.

6.4.1 Operation Flood —Phase -I(OF-I)

The foundation for such a scheme was laid in India in 1970 in the form of Operation Flood-I. Based on the recommendations of the National Dairy Development Board (NDDB), the Government of India proposed to the World Food Programme (WFP) of the United Nations, to donate to India \$50 million equivalent of milk powder and butter oil to get the project started. These supplies were to be used by the Mother dairies at Bombay, Delhi, Calcutta and Madras to be converted into liquid milk. This helped to generate an income of Rs. 1000 million for investments in dairy development in India. A separate agency called the Indian Dairy Corporation (IDC) was set up to deal with the commercial operations involved in the project. (The latest development in this field is that of the merger of the NDDB and IDC into one and this is now made a statutory body.)

The major activities of the Operation Flood-I were as follows :

- 1) Increasing the capacity and output of dairy processing facilities.
- 2) Resettlement of city cattle in rural areas.
- 3) Developing basic storage and transport network with a view to balance the regional demand for supply of milk.
- 4) Developing procurement systems of milk in rural areas with a view to provide a remunerative channel for raw milk.
- 5) Organising programmes on animal breeding, veterinary health care, feeding and management so as to improve the productivity of dairy animals.
- 6) Assuring stable market round the year for farmer's milk and also stabilising liquid milk supplies to major cities by establishing a regional milk grid.
- 7) Establishment of milch animal centres.

The World Food Programme of the UN supplied 1,26,000 tonnes of skimmed milk powder and 42,000 tonnes of butter oil under this project. It was expected that this project would generate a total amount of Rs. 1164 million between 1970 and 1979.

Operation Flood was concluded in March 1981, though it began as a Five Year project. The achievements under this project have been widely debated i.e. there have been arguments both in favour of its achievements, as well as criticism against this project.

The major achievements of the Operation Flood Programme are as follows:

- 1) Total milk production in the country increased from 21 million tonnes in 1970 to 30 million tonnes in 1979-80.
- 2) The milk processing in the four metropolitan cities of Delhi, Bombay, Madras and Calcutta was of the order of 29 lakh litres per day.
- 3) The funds allotted and generated by the project were fully utilised.
- 4) The total production of milk powder in 1979-80 was 68,100 tonnes.
- 5) Dairy Co-operatives were established in 18 major rural milk sheds.
- 6) Fourteen milch animal centres were established.
- 7) The Institute of Rural Management at Anand was established to train manpower to manage the rural industries.

Further, as a result of Operation Flood, ten million milk producers started earning fifty to hundred rupees more than they could earn before its inception.

6.4.2 Operation Flood—Phase II (OF-II)

Operation Flood-II was in continuation of Operation Flood-I.

Objectives of Operation Flood-II:

- To help 10 million rural milk producers to build a viable and self-sustaining dairy industry by mid-1985 i.e., to help them carry on a dairy business without any external support.
- To help milk producers rear (maintain) a National Milch herd of 14 million cross bred cows and upgraded buffaloes during the 1980s.
- To establish a National Milk grid to link rural milk sheds to the major demand (urban) centres with a coverage of an urban population of 150 million.
- To establish the infrastructure needed to support the dairy industry which includes a

national frozen system, indigenous development of dairy processing and conservation methods, manpower development programmes and information systems.

Thus, Operation Flood Phase-II aims at continuing the work done under Operation Flood-I, by extending the benefits of the project to the states which were not covered by Operation Flood-I. The major achievements of OF-II are as follows:

- 1) A total of Rs. 2323 million was generated by the IDC (Indian Dairy Corporation) through sale of gift commodities upto November 1984.
- 2) The dairies in Bombay, Delhi, Calcutta and Madras increased their capacity to 35 lakh litres per day in October 1984.
- 3) The number of village co-operatives in the 96 districts covered by the project rose to 31,000 with a membership of 38.8 lakh farmer-members.
- 4) Artificial insemination facilities were made available to 5238 societies.
- 5) Under the National milk grid, a fleet of 622 road tankers and 87 rail milk tankers with a capacity of 70.5 lakh litres and 31 lakh litres, respectively, aided long distance movement of milk supplies.
- 6) At Bombay, a godown was constructed to store dairy commodities, with a capacity of 3000 tonnes.

At present there are 238 dairy plants of various sizes in the country. These plants are handling, on an average, 92 lakh litres of milk per day.

The progress of Operation Flood projects is given in Table 6.2.

Table 6.2: Progress of Operation Flood

Year	Milk Sheds Covered	Anand Pattern Societies Organised	Peak Rural Milk Procurement (Lakh Kg/day)	Average Rural Milk Procurement (Lakh Kg/day)	Liquid Milk Marketing (Lakh Kg/day)
1971-72	5	1811	8.7	7.6	10.8
1972-73	7	2200	10.5	7.6	11.7
1973-74	9	2598	8.0	6.1	11.7
1974-75	15	2966	12.8	8.7	12.0
1975-76	28	4533	15.8	11.5	15.4
1976-77	33	7681	21.9	15.5	18.9
1977-78	35	9306	22.0	17.0	21.5
1978-79	37	10099	26.9	20.1	23.5
1979-80	39	11436	33.1	23.6	25.8
1980-81	39	13270	33.9	25.6	27.9
1981-82	71	18422	39.3	27.8	32.8
1982-83	98	23496	62.5	44.2	37.0
1983-84	115	28614	63.2	52.1	42.9
1984-85	136	34523	79.0	57.8	50.1
1985-86	150	40000	100.3	65.0	54.0

Source : Operation Flood—A progress report.

6.5 INCOME GENERATION THROUGH OPERATION FLOOD

The Operation Flood programme has helped Indian dairy farmers increase their income from dairy enterprises. Under this system, the co-operative societies are organised at the village/block level with the membership of the dairy farmers. Market for the milk produced by the farmers is ensured throughout the year. Further, the co-operatives help the farmers in obtaining inputs like feed, fodder, medicines and other technical advice. The milk federations in the states ensure that the farmers do not suffer for want of inputs. Small and marginal farmers get assistance under the various programmes of IRDP (Integrated Rural Development Programme) to buy milch cattle. Subsidies to the extent of 50 per cent of the cost of milch cattle are allowed on their purchases. The farmers can sell their milk to the co-

operatives and the milk sold by the farmers is transported by specially designed tankers to the milk processing units established throughout the country. As was mentioned earlier, this system strikes a balance between demand and supply of milk in different regions.

As in the case of agricultural commodities, the major part of production of milk is from the rural areas while the consumption is concentrated in the urban centres. This results in low demand but high supply of milk in rural areas while high demand and low supply of milk occur in urban areas. This leads to high price of milk in urban areas for the consumers while in the rural areas, the producers of milk get very low prices.

With the introduction of the operation flood project and the consequent setting up of co-operatives and processing plants, this situation has largely been overcome. The farmers who produce milk and sell to the co-operatives are assured of marketing their produce at reasonably high prices. Because of this scheme, the farmers are encouraged to produce more milk for which the buyer is always available. Besides, since the co-operatives pay higher prices than what the farmers could get earlier by selling milk around their villages, the total income of the farmers has increased. You should remember that the milk unions (Federations) of the state, will fix the price of milk depending upon different factors which include the cost of milk production. But, at the same time, the government concerned also has to bear in mind the interests of the consumers. Thus, the interests of both the consumers and the producers are protected. It has been estimated that the dairy farmers have increased their income by Rs. 50 to Rs. 100 after the initiation of this project.

If you closely observe the different sources of milk supply in your town (Government dairies, milk vendors, etc.) you will notice the difference in the prices at which milk is supplied. Further, the incidence of deceiving the consumer in terms of quality, measurement, time of supply, etc., is very low when you buy milk from the dairies run by the Milk Federations.

 **Check Your Progress**

4 How does the Operation Flood Project help the dairy farmer?

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5 What do you understand by balancing of supply and demand of milk? How is it achieved under co-operative dairying?

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6 List three major achievements of Operation Flood-II.

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6.6 LET US SUM UP

In this Unit you have learnt the importance of dairy enterprise to the farmers, which helps him increase his income. You have seen that the Government has invested large sums of money on providing basic facilities like veterinary clinics, artificial insemination centres, improvements of cattle breeds, etc. You are acquainted with the main purpose and achievements of the Operation Flood Project—Phase-I and Phase-II. You are now aware of the benefits the farmers get in selling their milk through the Dairy Co-operatives. You have also learnt how the farmers can increase their incomes under the Operation Flood Programmes.

6.7 GLOSSARY

Animal Husbandry	Rearing animals for the purpose of generating income
Complementary Enterprise	: An enterprise which increases in the income from the main enterprise along with income from itself.
Consumption Centre	: Place where a thing is consumed or used up
Dairy Co-operatives	Cooperative societies of milk producers.
Diversification	: Introducing variety.
Federal Structure	: A hierarchy of organisations independent in their operations but linked together.
Infrastructure	: Facility like hospitals, breeding centres, markets, loan facilities etc.
Milk Grid	: System for collection and transport of milk.
Operation Flood	: The name of the programme/project in India for increasing milk production and organising dairy farmers into a co-operative for improvement of their incomes.
Per Capita	: Availability per person per day.
Productivity (Milk)	: Yield of milk per head of cattle (cow/buffalo).
Production Centre	: Place where production is concentrated.

6.8 ANSWERS TO CHECK YOUR PROGRESS

- 1 A dairy enterprise is a business in which cattle (cows and buffaloes) are reared for getting milk which is sold either as milk or milk-products.
- 2 Dairy Enterprise is a complementary enterprise to crop enterprise because cattle can be fed with the byproducts of crops like straw, and the manure generated from cow dung can in turn be used for the crops.

- 3 The Government's efforts to develop dairy enterprises in India have been as under :
- i) Intensive cattle development projects were established in the 6th Five Year Plan.
 - ii) Frozen semen stations were established to accelerate cross-breeding of cattle.
 - iii) Veterinary hospitals, first-aid centres were set up.
 - iv) Central Fodder Seed Production Farm was set up.
 - v) Initiation of Operation Flood Programme.
- 4 The Operation Flood Project helps the dairy farmers by organising them into a cooperative society of milk producers at the village/block level. All such societies are federally linked as a cooperative. Producers of milk who are members of the cooperative society can contribute their milk (however small the quantity may be) to their respective societies. The milk is collected through a well-knit transport system and transported to milk processing plants. The farmers now get a good price for their milk produce which they were selling at a low cost earlier because of more supply and less demand in rural areas.
- 5 The major part of production of milk is from the rural areas, while the consumption is concentrated in urban areas. This results in low demand and high supply of milk in rural areas and high demand and low supply of milk in urban areas. This leads to high price of milk in urban areas, and in rural areas producers get very low prices. With the introduction of the Operation Flood Project and consequent setting up of co-operatives and processing plants, this situation has been overcome. The farmers who sell their produce to co-operatives are assured of marketing their produce at a reasonably high price. At the same time, the interests of the consumers are also kept in mind. Thus, the interests of both the consumers and the producers are protected.
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- i) The number of village co-operatives in the 96 districts covered by the project rose to 31,000 with membership of 38.8 lakh farmer-members.
 - ii) Artificial insemination facilities were made available to 5238 societies.
 - iii) Under the National Milk Grid, a fleet of 622 road tankers and 87 rail milk tankers with a capacity of 70.5 lakh litres and 31 lakh litres, respectively, aided the long distance milk movement.

Practical Exercise

Visit a dairy cooperative in your locality and record its activities.