CHAPTER I

INTRODUCTION

India is predominantly an agricultural country and 80 per cent of its total rural population is dependent upon agriculture and Indian agriculture in turn is fully dependent on livestock. The prominent place of livestock production and dairying can hardly be over-emphasized. Mixed farming, involving integration of crop production with animal husbandry has been followed by the farmers since the inception of agricultural civilization in the country. Inspite of prominence in the livestock population, Indian citizens consume unsatisfactory quantity of milk which was 161 gm. per day in 1987-88 against a minimum recommendation of 280 grams\(^1\). While the average per capita consumption of milk in the world per day is 288 grams. The reason for low consumption of milk in India is its high population (835 million) being only next to China. In whole of the world, the livestock population of cows, buffaloes, sheep and goats was 1225.0, 133.4, 1084.0 and 463.7 million respectively in 1982. In India, it was 363.7 million (11.60\%) of the total livestock population of the world\(^2\). The number of cows, buffaloes, sheep, goat were 182.0 (50.04 per cent), 61.0 (16.77 per cent), 41.00 (11.27 per cent) and 71.00 (19.52 per cent) millions respectively.

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(1) Dairy India, 1987 p.5.
(2) F.A.O. Year Book 1985.
In India, dairy development is recognised as an important activity suitable for increasing the income level of rural families, especially the small and marginal farmers and landless labourers. In 1984-85, the value of milk and its products exceeded Rs. 100,000 million, ranking after rice, but before wheat. Hence, milk can be regarded as India’s second most important agricultural commodity. Equally important, if not more, is the role of dairying in providing sustenance to millions of farmers, constituting 75 per cent of the total population in some 80 million farm house holds, consisting largely of the rural poor, with an annual income of less than Rs.3,800 per family. Milk provides both nutrition and supplementary income to these weaker sections.

India, with an annual milk production of 45.9 million tonnes in 1987-88 ranked third in the world (504.26 million tonnes) after Soviet Union 97.8 million tonnes and the United States, (65.0 million tonnes).

In India, on an average, than more than 70 percent people follow the profession of animal husbandry. But, if we consider the production of milk, it is very low as compared to other countries. It is poor due to lack of scientific knowledge in feeding standard, ignorance about the health of the livestock and poor maintenance, which is mainly due to illiteracy of the villagers.

(1) Dr. Chatterjee, A.K. Dairy India p.3.
(2) F.A.O. Production Year Book 1985.
Milk production can be made profitable through the maintenance of quality cattle, adoption of improved feeding and management practices and establishment of organised markets for milk to bring a remunerative price to the farmers. Keeping this in view the Government of India initiated a scheme for financing the purchase of dairy cattle through banks. This scheme made an attempt to integrate finance with production enhancement and marketing activities and ensured that the repayment schedule was not inconvenient to the farmers. The bank advanced loans to individual farmers belonging to the milk society affiliated to the Dairy. The loan was recovered over a period of years from the sales. The bank also provided technical help in locating quality cattle and veterinary help through Doctors for the dairy.

For improvement in the level of milk production in our country, it is required to keep high yielding breeds of buffaloes and cows. It is true that the buffaloes available in our country are among the lowest in the world. It is indeed good that we are having cross bred cows. However, the production of milk is comparatively low. Therefore, it is necessary that we should develop the animal wealth in our country. We will have to keep in our mind the target of milk to be achieved in the coming days at the time of preparing schemes for the development programmes.

A programme namely Intensive Cattle Development programme (ICDP) is already operating all over the country. Under this programme, the following objectives have been laid down viz., controlled reproduction, development of the resources of grains and fodder, animal health centre, marketing facilities and dairy
extension services at the guaranteed optimum rate. There are 86 types of programmes which are co-ordinating in the dairy development. There were 250 milk plants operating in public and co-operative sectors. Of which 137 were of liquid milk plants, 39 milk product factories, 74 rural pilot dairy plants. Installed capacity of plants was 162.82 lac litres per day. But the average throughout per day of milk was only 124.38 lac litres (76.4 per cent 1986).

In the post-independence era various efforts have been made during the different Five year plans. In the first Five year plan, the out lay was Rs.8.00 crores for the establishment of milk supply schemes in Bombay, Calcutta and expansion of National Dairy Research Institute (N.D.R.I.), Karnal. In the second Five year plan, the out lay was Rs.21.0 crores for the establishment of 1900 Veterinary hospitals, establishment of Delhi Milk Scheme (1960) and promoting private manufacturers like Glaxos, Levers, Nestles, etc. for establishing milk product factories. In the Third Five year plan, the out lay was Rs.36.0 crores for the establishment of Dairy Development Department in each State, establishment of 143 Government Milk Supply Schemes in big townships and establishment of milk supply scheme in Madras and setting up of National Dairy Development Board (N.D.D.B.-1965).

The National Dairy Development Board (NDDB) was established under the aegis of the Ministry of Agriculture and Irrigation, Government of India, in September 1965, under the Societies Registration Act 1860 and the Bombay Public Trusts Act 1950.

Its Board of Directors included the Chairman nominated by the President of India; Secretary NDDB is the Chief Executive of the Organization who is supported by professionals to carry-out Board's activities.

The NDDB carries out its activities through its head office at Anand and its regional and cell Offices at Delhi, Calcutta, Bangalore, Bombay, Madras and Bhopal. Projects in the Western State like, Gujrat, Maharashtra and Goa are managed directly from NDDB's head office. Projects in Tamilnadu, Kerala, Andhra Pradesh and Karnataka are managed by regional office, Bangalore. Projects in Uttar Pradesh, Haryana, Punjab, Rajasthan, Jammu & Kashmir and Himanchal Pradesh are managed by the regional office, Delhi. Projects in Bihar, Assam, Sikkim, West-Bengal, Orissa and other States are covered under N.E.C. (National Economic Council) and are managed by the regional office, Calcutta. Dairy and vegetable oil seed project in Madhya Pradesh are managed by the regional office, Bombay.

In November'1969, National Dairy Development Board submitted a proposal to Government of India for Operation Flood I which was launched in July 1970. The Indian Dairy Corporation (IDC) was set up under Company's Act on 13th February 1970. It is a Government of India Under-taking. The immediate need to set up IDC was to handle commercial and financial transactions of India World Food Planning (WFP) project '618', popularly known as

(1) Dairy India 1987.
'Operation Flood'. Thus it became mainly a financing-cum-promotional agency of the Central Government.

The main aim of IDC was to promote dairy industry in the country and to act as liaison agency of Government of India, with foreign agencies and institutions. The IDC have an efficient co-ordination between the Operations of IDC and the NDDB. The IDC has created a co-ordination cell located in the office of NDDB at Anand. This cell not only co-ordinates the activities of these two organisations but also acts as a progress chaser for speedy implementation of the programme. The IDC built a special nutrition fund to cover the children up to three years of age through subsidized distribution of double toned milk and established an Animal Disease Diagnostic laboratory and surveillance unit at a total cost of Rs. 74.75 lacs with NDDB at Anand's.

Operation Flood project was aimed at creating a 'Flood' of rurally produced milk in the urban consuming countries. The first phase of the programme had a 5 year duration from 1970 to 1975. But the programme concluded in March 1981. It was intended to cover 10 States in this phase having 18 milk sheds.

The operation flood project had an outlay of Rs. 95.40 crores which was later increased to Rs. 116.54 crores. It was mainly aimed at developing the milk marketing system in the country. As such

(1) and (2) Dairy India 1987.
major demand centres like Delhi, Calcutta, Bombay and Madras were linked with the rural milk producing pockets in the country. The main objectives of 'Operation Flood' were to increase the capacity of milk processing facilities and to improve the dairy farming system. During the period of Operation Flood I, India received, 26000 metric tonnes of skim milk powder (SMP) and 42000 metric tonnes of Butter oil (B.O.) and the annual milk production increased by about 50 per cent. It rose from 2.02 to 3.02 crore tonnes. The generation of fund was Rs.116.54 crores.

Under the First phase of 'Operation Flood' about 13270 primary milk producer's co-operatives were formed on Anand pattern benefitting about 175 Lac rural families and covering about 32 Lac animals under production enhancement programme.

The 'Operation Flood' II was launched on 2nd October 1979. This programme had an outlay of Rs.485.50 crores. In the second phase still more attention was to be paid for increasing the milk production. The programme was designed to cover the whole country over a period of 7 years. Some 25 cluster federations covering 155 co-operative unions were to be formed.

In the second phase, it was physically and financially kept five times larger than that of 'Operation Flood I'. It aimed to benefit about 200 lac rural families and provide a solid base for the future growth of dairy industry in India.

(1) National Dairy Development Board.
(2) Ibid.
Milk co-operatives under 'Operation Flood II' have covered 36.30 lac farm families by March, 1985. Of those, five lac farm families were newly inducted into the co-operatives. The number of Anand pattern village co-operatives was 34,523, and annual milk procurement 2109.7 lac tonnes.

Farmers sold through their co-operatives, an average of 79 lac litres of milk per day during the peak month and the annual average was 58 lac litres per day. They received about Rs. 711 crore for milk supplied, Rs. 623 crores in cash against milk bills and Rs. 58 crores as inputs in kinds/bonus.¹

The profit to producers and consumers by the scheme of Operation Flood II has been noted in different directions. The milk production, which was 700 grams/day/cattle has increased. It has increased to 1000 grams/day/cattle by the end of 1983. In 1984-85 the 6,338 societies worked for the availability of Frozen semen and 1,056 societies for liquid semen. For fresh and liquid semen, 12 Bull mother Farms, 9 semen collection centres, and 60 semen Banks have been established under 'Operation Flood II'.² Uttar Pradesh has the distinction of having the first milk co-operative society in the country which was established in Allahabad in the year 1917. In the year 1938 Lucknow milk producers co-operative union was started and with this the foundation of the dairy development was laid. Closely following this a milk producers

¹ National Dairy Development Board, 1985-86.

In Uttar Pradesh the population of animal has increased as well as the production per animal. The milk production of cows has increased up to 9.6 per cent while in buffaloes it increased by 3.76 per cent. The milk production of buffaloes was 51.46 lac tonnes and of cows 21.15 lac tonnes in 1984-85. In this way, cows stand second in the field of milk production, 17.67 per cent of total milk production in India is received from Uttar Pradesh (71,000-00 thousand tonnes). The Western districts of Uttar Pradesh give higher milk production than the eastern districts.

Uttar Pradesh is the only State in India where the Dairy Development Programmes (D.D.P.) are governed by co-operative department. In Uttar Pradesh the co-operative system is three tier, milk co-operative societies at village level, milk unions at district level and provincial co-operative milk federation at State level. Provincial Co-operative Dairy Federation Limited (P.C.D.F.), was established in 1962 with its head office in Lucknow.

In 1970-71, the P.C.D.F. started an infant milk processing plant costing Rs. 139.71 lac at Dalpatpur district, Moradabad. In the same year 'Operation Flood I' plan was launched in 4 Western and 4 Eastern district of U.P. viz. Meerut, Muzaffarnagar, Gaziabad and Bulandshahar and Varanasi, Ghazipur, Ballia and Mirzapur under World Food
Programme by Indian Dairy Corporation gave Rs. 687.50 lac as economic aid for this plan, of which 70 per cent was credit and 30 per cent subsidy.

Under 'Operation Flood I' plan, one Dairy plant was erected in Meerut and one in Varanasi with 1.00 lac litre capacity of daily milk handling, two animal feed processing plants of 100 metric tonnes daily production capacity each and one Jersey cow reproduction unit in Rai-Bareilly was established by P.C.D.F. In 1977 the federation launched a 'cross-breed centre' in Moradabad with the aid of Rs. 47.44 lac received from Britain and State Government to improve the local breed of cows.

The P.C.D.F. established 10 chilling centres of four thousand litre daily milk handling capacity each in the first two years of 'Operation Flood I'. In total 12 chilling centres have been established by P.C.D.F. in Raibareilly, Unnao, Sitapur, Shahajanpur, Farrukhabad, Kotdwar and Pithoragarh. Out of these, 10 chilling centres have been established with the aid of Rs. 80 lac from National Co-operative Development Corporation (N.C.D.C.)

In April, 1978, the Meerut dairy plant was started and in January, 1979, the Varanasi dairy plant commenced functioning. The Provincial Co-operative Dairy Federation has established one 20 thousand capacity daily milk handling plant


The period of 'Operation Flood II' were 7 years, from September, 1979 to 1985 but it commenced in November, 1982. The total approximate budget was Rs.136 crores of which 48.5 per cent for processing facilities, 15 per cent for development of village co-operative societies, 30 per cent for technical investment and 6.5 per cent in other programmes. There are 28 districts under Operation Flood II plan adopted in three phases. In 1983, 7 districts were included, in 1984, 12 districts were included and in 1985 9 districts came under Operation Flood II.

There were 4498 milk producers societies and 267 thousand milk producer members under this plan by the year 1986-87. The sale of balanced ration was 1500 metric tonnes in the year 1982, which increased to 16065 metric tonnes in the year 1986-87. The daily milk procurement was 70 thousand litres in the year 1982, which increased to 3,171 lac litres per day in 1986-87. In 1982, 24,500 litres daily fluid milk was supplied to urban cities and it increased to 1,65 lac litres daily in 1986-87. The production of butter and ghee increased from 542 metric tonnes and 646 metric tonnes respectively in 1982-83 to 1372 metric tonne and 1035 metric tonnes in the year 1986-87.
The State Government invested Rs.5713.577 lacs for development of dairy from beginning of the plan to 1986-87. In Seventh Five Year Plan (1985-1990) Rs.2240.00 lac has been sanctioned for dairy development plan.

The 'Operation Flood II' though inducted in August 26, 1984 in district Etawah, actually started functioning on 20th November, 1984 with first milk procurement. The total number of village co-operatives in the beginning was 21 (November, 1984) which increased to 242 by August, 1989. Out of these 141 Societies are working for milk procurement. The total number of members stood at 12561 on August, 1989 of whom 7468 were milk producers. The average milk procurement amounted to 12074 litres per day in winter and 5000 litres per day in the remaining months (1988-89). The average milk procurement per day per society in winter amounted 76.55 litres and in summer and rainy season 25.9 litres.

It is said that changes brought about in different schemes of cattle development and for dairy development, could not transform the economic scene of dairy enterprise. In order to find out the real conditions and give suggestions to ameliorate the irrationalities of dairy enterprise, the present study entitled, "IMPACT OF CO-OPERATIVE MILK UNION ON THE MILK PRODUCTION AND INCOME OF ITS MEMBERS IN DISTRICT ETAWAH UNDER 'OPERATION FLOOD II SCHEME'", has been undertaken with the following specific objectives:—
1- To find out the resource structure and milk production pattern of the members of Dairy co-operatives.

2- To analyse the level of income and employment of the members of Dairy co-operative society.

3- To identify the factors responsible for success and failure of Dairy societies.

4- To suggest suitable measures for improving the functioning of village Dairy co-operative.