

Rural Industrialisation and Micro Enterprises

Rural industrialisation has become as much as an essential ingredient of rural development strategy, as industrialisation is one of the development strategy for the country. The emphasis on traditional rural industries as the central element in the strategy for rural industrialisation is based on a number of economic as well as social considerations. Using available traditional skills and requiring little capital, they provide suitable employment to the rural households, without involving any dislocation and migration. They use more labour per unit of capital and output as compared to modern industries; and their operations can be adjusted to suit the fluctuations in labour requirements of agricultural sector. Another presumably favourable feature of these industries is that they provide self-employment which, according to a viewpoint, is the most desirable form of employment as it is free from exploitation which is a characteristic feature of wage labour.

This has been precisely the realisation of policy makers which prompted them to give much thrust on promotion of tiny and village industries as part of integrated rural development. Several Ministries and Agencies both at National and International level are extending support to various voluntary efforts in the areas of Rural Industrialisation. Ministry of Rural Development, Department of SSI & ARI, KVIC, NABARD, RMK, SIDBI, IREDA, OXFAM, Action Aid, ILO, UNIDP etc., are a few agencies which extends funding as well as institutional support to NGOs for undertaking tenacious and tangible interventions in this direction.

*A sample project proposal on **Women Milk Co-operative (Rural Dairy)** is given in detail under the heading of **Rural Industrialisation and Micro Enterprises**.*

**PROJECT PROPOSAL ON
Women Milk Co-Operative
(Rural Dairy)**

PROJECT PROPOSAL ON

Women Milk Co-operative (Rural Dairy)

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1

The Project - An Overview

1.1 The Project

This project is proposed to set up a women co-operative for establishing a 20 Animal Rural Dairy with an initial capital investment of Rs. 4 lakhs. While Milk Cooperative farms basis for formulating the project, a plethora of schemes under rural industrialization have been discussed here in this report.

1.2 Project objectives

- Augmentation of rural economy through participatory planning process
- Consolidation of soil and water resources
- Improving rural productivity
- Diversification into high value crops
- Animal improvement and management
- Processing of agricultural and animal products
- Commodity marketing and formation of producer groups
- Technologies for drudgery reduction and increasing efficiency

1.3 Project interventions

- Formation of self help groups
- Savings and credit management
- Economic organisation for SHG
- Setting up 20 animal rearing and milk co-operative

1.4 Target group

The target group includes women from rural households below the poverty line. The group would largely consist of women from marginal and small farm households and landless families.

1.5 Scope of the project

It is pertinent to note that the industrial policy has not and does not even now, specifically mention the concept of "Rural Industrialisation" though the term has, off late, been increasingly used in the context of integrated rural development. The relevance of this as a critical gap would be borne out from statistics regarding un-employment, occupational structure and relative distribution of assets and income.

It is estimated that as many as 37.50 million people were unemployed on a daily basis in 1999-2000 of this, 57% is accounted for by rural agricultural labour and other rural landless households, who constitute 23% of the total population. Even the trend of distribution of workers by weekly status employment between 1999-2000 and 2000-2001 shown a decline from 45.4% to 43.2% in self-employment in agriculture and from 15.6 % to 14.9 % in non-farm sector. As against this, there has been an increase from 16.6 % to 20.1 % in casual labour in agriculture and non-agricultural sectors. Salaries/wages employed in agricultural sector shown a negative trend, while in the non-agricultural sector it has shown a marginal increase from 12.6 % to 12.8 %. The trends are unmistakable. The percentage of landless persons in the rural areas is increasing with corresponding increase in overall unemployment. The organised sector, while competing with unorganised sector, offers limited potential for absorbing the growing workforce, and self-employment is not showing any marked or significant growth even in absolute terms. The implications are worse when we see that in overall terms also. The indications contained in the midterm appraisal would seem to suggest the possibility of starting the ensuring plan with a higher backlog of unemployment. The daily status unemployment figures would be indicative of under employment rather than chronic unemployment (which is relatively higher in percentage terms amongst the educated classes), viewed as such, perhaps even present estimates of unemployment would be somewhere on the lower side and the magnitude of the problem would be much greater if we were to consider the percentage of population living below poverty line, because poverty when measured in terms of income is only a function of the capacity to earn or to be productively employed.

The need for creating large scale wage and self-employment opportunity, particularly in rural areas, is thus obvious, and this has to be accompanied by widening of the base of rural occupational structure and strengthening of rural economy as such.

Essentially, this would mean the provision of self-sustaining capacity to the rural areas with the required focus on those who are relatively impoverished. Agriculture would naturally continue to play a major part in the process. Purely, from the point view of employment potential, which would be a fairly good indicator of this self sustaining capacity, a first step would involve making some reasonable projections of work force absorption capacity of this sector within reasonable assumptions regarding rates of growth, cropping pattern etc. This would give an idea of the likely employment requirements in the secondary or tertiary sectors.

Rural industrialisation thus becomes as much as an essential ingredient of rural development strategy, as industrialisation is one of the development strategy for the country. The emphasis on traditional rural industries as the central element in the strategy for rural industrialisation is based on a number of economic as well as social considerations. Using available traditional skills and requiring little capital, they provide suitable employment to the rural households, without involving any dislocation and

migration. They use more labour per unit of capital and output as compared to modern industries; and their operations can be adjusted to suit the fluctuations in labour requirements of agricultural sector. Another presumably favourable feature of these industries is that they provide self-employment which, according to a viewpoint, is the most desirable form of employment as it is free from exploitation which is a characteristic feature of wage labour.

This has been precisely the realisation of policy makers which prompted them to give much thrust on promotion of tiny and village industries as part of integrated rural development. Several Ministries and Agencies both at National and International level are extending support to various voluntary efforts in the areas of Rural Industrialisation. Ministry of Rural Development, Department of SSI & ARI, KVIC, NABARD, RMK, SIDBI, IREDA, OXFAM, Action Aid, ILO, UNIDP etc., are a few agencies which extends funding as well as institutional support to NGOs for undertaking tenacious and tangible interventions in this direction.

1.6 Project Planning

This project is an approach intended to undertake the following activities

- a) Formation of self help groups
- b) Organising savings
- c) Formation of women cooperative
- d) Setting up - Milk cooperative
- e) Institutional linkage for credit and marketing

A detailed approach and programme methodology is discussed at chapter - 5 of this proposal.

1.7 Project Cost & Means of Finance

The project "Women Milk Co-operative" is proposed with an initial capital investment of Rs. 4 lakhs, out of which the women co-operative is expected to bring-in Rs.1 lakh as their contribution (share capital) and the rest of the gap would be bridged out of soft loan from either Rashtriya Mahila Kosh or some local bank.

1.8 Organisation and Man-power

The Executive Secretary of the Implementing Agency which is expected to be a Mahila organisation, will assume the overall superintendence of the project and she will be the project leader. She will be assisted in her day-to-day pursuits by other dynamic members of the co-operative and wherever possible, the induction of external labour is eliminated. The members who take part in the operation of the project will be paid honorarium.

The services of veterinary doctor will be empanelled on contract basis/on-call basis wherever necessary.

1.9 Impact analysis

The main objective of the implementing agency is to develop a detailed framework for monitoring and evaluation of the project. The task is two fold.

- To establish a framework for concurrent monitoring and evaluation to assess programme implementation, performance and sustainability.
- Define list of indicators, and variables for process monitoring which are consistent with the programme objectives and reflect the different stages of project implementation.

A Project Advisory Committee consisting of project leader as member secretary and other stakeholders and development partners as members will be formed to derive Advisory as well as monitoring support from time-to-time.

This committee will also review the accounts and audited statements of the implementing agency.

The programme will be reviewed periodically by the Executive Committee of the implementing agency and necessary modifications to achieve the desired objectives would be incorporated as per the advises given by the Project Advisory Committee.

1.10 Schedule of implementation

The project is proposed to take-off within a period of 6 months. The break-up of various activities interconnected with the implementation of the project is given at chapter - 9 of this proposal.

2

Rural Industrialisation in India - Problems and Prospects

Village and home industries in India, may verily be described as the orphans of the Indian economic world, whether, it is a matter of credit or assistance or any other form, the last priority is given to village industries. Whenever the emphasis is on economic growth and investment, it is always on big industries and on expanding their capacity. That apart, even in places, where favourable circumstances prevail to start industries, no attempt is made to encourage village industries. Without seeking any foreign collaborations and availing ourselves of available resources alone, many small home and village industries could be started and substantial employment opportunities provided, if only little encouragement is offered to such industries. That would contribute to the Nation's greater economic growth in terms of satisfaction for the large number of our people.

In large scale industry, the finance invested today is about Rs. 142,000 crores plus about Rs. 72,000 crores in various services and if investment in small scale and village industries comes to a total of about 20% of that in large industry for the present it will require only 42,800 crores, but the smaller industries can additionally employ about one crore people. The small enterprises play an important role in the life of the country. They should be made an essential sector because they offer substantial economics and are designed by poor people for poor people. Their actual and potential riches are obvious. In various respects, they are much more advantageous than the enterprises of the modern structured sectors in the cities. They need very little capital and a sense of organisation and innovation are often to be found amongst these numerous and resourceful workers. They would thus have spatial distribution of productive forces which need no longer be cantered around increasingly extensive and over powering cities.

The fact that rural industries have not so far developed in India, either to the extent desired or in the rural areas as required, must be attributed partly to the lack of guidance and assistance, partly to the inhabiting and damaging environmental factors, and partly also the prevalence of the popular notion that they relate only to a few petty and unimportant class of industries, or that as a rule, they are relatively costly and inefficient in their operation, because they have to carry on an independent existence. But there is a refreshing change to this trend and more and more voices are being heard in favour of these village industries.

The emphasis on the development of small and rural industries has been renewed with vigour recently in the various official statements and measures on industrial policy. But the approach, still seems to be

characterised by an emphasis on protective measures and lack of efforts to integrate the programme of development of rural industries with the process of industrialisation of the economy in general. Some of the important policy measures suggested in this regard are (i) whatever can be produced by small and cottage industries must be so produced (ii) special attention will be given to the tiny sector (iii) special legislation will be introduced to give recognition and adequate protection to self employed in cottage and household industries (iv) the District Industries centres are to provide all services and support required by the small and village industries through interalia supply of machinery equipment, raw materials, arrangement for credit facilities, marketing, quality control.

Among the services to be provided to the rural industries, finance seems to be uppermost in the minds of policy makers. Accordingly, the SIDBI is expected to develop special programmes of financing small and village industries and to co-ordinate credit facilities provided by other institutions to this sector. No doubt, finance is an important requirement for the growth of rural industry, but it needs to be equally emphasised that the technological backwardness, non-availability of certain essential inputs and non availability of appropriate marketing channels are some of the severe constraints on the functioning of units in rural areas. Several developmental agencies, NGOs and district industries centre are playing very vital role in development of this sector but it is to be seen how well these are able to cope with multifarious requirements of this sector. To be effective in their functioning, these organisations should be able to co-ordinate with such organisations responsible for creating special infrastructure - such as provision of power and communication, the technical and vocational guidance, development of consultancy and banking services. All this implies development of effective and efficient public mechanism of state and voluntary action and intervention on a much larger and extensive scale than practiced till now. The public distribution system for such purposes will have to supply not only the essential consumer goods but also essential inputs to rural industries. The marketing organisation will have to be developed not only for setting the products but also to study the market patterns for advising them about the types of articles to be produced by the rural industries.

In the light of the renewed emphasis and envisaged programmes for developing industries in rural areas, the need for examining the desirable and feasible pattern of rural industrialisation, identifying factors that hinders the growth and efficiency of various measures in relation to the specific aspects such as materials, technology, finance, marketing etc., has obviously assumed great importance. Equally important is the measures adopted effectively to counter the adolescences and inculcate a spirit of rural industrialisation. All these situations warrants the invention of all concerned stake holders, social partners, NGOs and Government Agencies.

3

Rural Industrialisation - Policy Initiatives, Institutional Support

Rural industries continues to play a key role in the development of the country and grow simultaneously with medium and large industries on one side and the small scale industries on the other side. Harmonious and coordinated growth of the segment was facilitated by pursuing a suitable package of policies and programmes in the successive five year plans. Advantages of village industries as experienced in different parts of the country are; low investment per work place, high potential for employment generation, diversification of the industrial base and disposal of industries in rural and semi-urban areas. Other attributes of this sector is low gestation period, reduction of regional disparities of income between persons and regions through dispersal of industries and scope to exploit local raw materials and dormant entrepreneurship which would have otherwise remained unutilised.

The sector has been given a strategic position towards the fulfilment of the socio-economic objective, particularly in achieving growth with equity. Within the overall objectives of food, work and productivity laid down in the current five year plan, the village and small industries sector would contribute inter alia, towards improving the economic and occupational profile of rural, semi-urban and weaker sections of urban communities. Regional dispersal and structural diversification of industries through it's continued growth with special attention paid to upgradation of technology, improvement of skills and quality improvement. Importance of rural industrialisation has been highlighted by it's inclusion in the 20 point programme under point - 1 "attack on rural poverty" by stating that "we shall promote handlooms, handicrafts, village and small industries and improve skills for self-employment.

Policy initiatives

Major objectives of the current plan for the village and small industries sector are that this sector would

1. Assist in the growth and wide spread dispersal of industries
2. Increase the level of earnings of artisans
3. Sustain and create avenues for self employment
4. Ensure regular supply of goods and services through use of local skills and resources

5. Develop entrepreneurship with focus on rural areas in combination with improved methods of production through appropriate training and package of incentives.
6. Preserve craftsmanship and art heritage of the country
7. Remove regional disparities through a deliberate policy and encourage growth of non-farm occupation in rural areas.
8. Make village industries export oriented and help quality upgradation.

Strategy for Development

The strategy in the current five year plan includes the identification of two categories of rural artisans - existing and potential; widening employment base through diversification, expansion and additional programme; promoting and strengthening facilities for training, procurement storage and processing of raw materials, manufacturing and supplying of improved tools and providing marketing facilities, setting up a base for research and development of appropriate technologies, undertaking research and development in production and processes, reducing drudgery, improving quality and productivity are equally important aspects of development strategy which will have to be set forth for implementation. Besides rationalising the present system of rebates, subsidies and soft loans, special emphasis would be given for increasing the volume of institutional finance; emphasis on processing locally available raw materials will be laid.

The strategy also includes paying greater attention to backward areas, deprived sections of the society especially the scheduled castes and scheduled tribes, women and providing employment to educated un-employed, marginal farmers, landless labourers and rural artisans by providing training opportunities.

4

Rural Industrialisation - Voluntary Interventions

4.1 Voluntary interventions

The following interventions can be undertaken voluntarily by the NGOs under Rural Industrialisation programme.

- a) Rural industrialisation programme on cluster approach
- b) Collection and processing of minor forest produce
- c) Women co-operative for bamboo and bamboo products
- d) Integrated rural development through community farming
- e) Sericulture
- f) Women co-operative for bee-hive keeping and honey processing
- g) Training cum production centre in food processing
- h) Women co-operative for cattle rearing and milk collection.
- i) Thrift and credit society, community banking for women
- j) Women co-operatives for promotion of handicrafts
- k) Exhibitions, buyer-seller meets for promotion of rural and cottage industries
- l) Specialised marketing agency
- m) Intensive caracas flaying centre
- n) Village tannery
- o) Small footwear unit
- p) Entrepreneurship Development Programmes for Rural Women.

4.2 Supporting institutions

- a) Ministry of Rural Development
- b) NABARD
- c) SIDBI
- d) Rasthriya Mahila Kosh
- e) Ministry of Industry
- f) International Labour Organisation
- g) UNIDO
- h) Action Aid
- i) Ministry of Agriculture

5

Women Milk Co-operative - An Approach

5.1 Women Milk Co-operatives in India

Seventy five percent of India's population is engaged in agriculture. Most of them are small and marginal farmers and many are landless labourers who work on other people's land. They produce milk by feeding their animals on the bye-products of agriculture. Even landless labourers keep one to two buffaloes or cows and feed them on crop residues and fodder they are permitted to collect from the edge of the fields where they work. In fact, with the growing pressure of human population, dairying has to be developed in such a manner as to avoid competition between man and beast for land and its produce.

The pattern favoured for Dairy development in India has been the co-operative pattern. It is followed by most advanced dairying countries in the world. The major difference, however is that in India, a single dairy plant is often supplied milk by a quarter of a million farmers, each owning one or two cows or buffaloes. Thus in every village, there is a Milk Co-operative Society managed by elected representatives of the milk producer members and in a district which has, say, 1000 villages, these village co-operative societies are federated into a district co-operative union, which owns and operates a dairy plant or at least a milk chilling centre. Each district union is managed by a Board of Directors elected from amongst the chairman of the village societies. There is a third level, which is at the state level, where chairman of district unions elect the Board of Directors of the state co-operative federations and at the National level, the National Cooperative Dairy Federation of India.

Under "**Operation Flood**" over eight million farmers have today organised themselves into nearly 69,000 village milk co-operative societies, which are federated into 210 district milk co-op unions owning Dairy plants, cattle feed plants, chilling plants etc. These again are federated into 28 state level federations. The benefits of the project have been clearly demonstrated. The co-operative dairies collected in last June over 16 million litres of milk per day. Income to farmers has doubled. Over Rs. 9,200 millions are now paid by the milk co-operatives each year to the farmers for the milk they produce. The per capita consumption of milk in India has risen from 107 gms per head in 1970 to 154 gms in 1986 and 350 gms in 1999, milk and milk products which were once upon a time, rationed commodities in all towns and cities, are now easily available, though not yet at a price that the poor can afford.

Milk and milk products play a vital role in the country's agricultural economy, being the second largest contributor to the prime agricultural produce. 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% of

total production in 80 million farm households, consisting largely of the rural poor, with an annual income of less than Rs. 3,800/- per annum.

Dairy development fits most appropriately in the country's programme of increasing food production, rural employment and distributive justice. In small farmer situations also, it directly helps in increasing crop production through making fluid cash available for the purchase of essential inputs. Thus the contributions of dairying to the Nations health and economic welfare is rather unique.

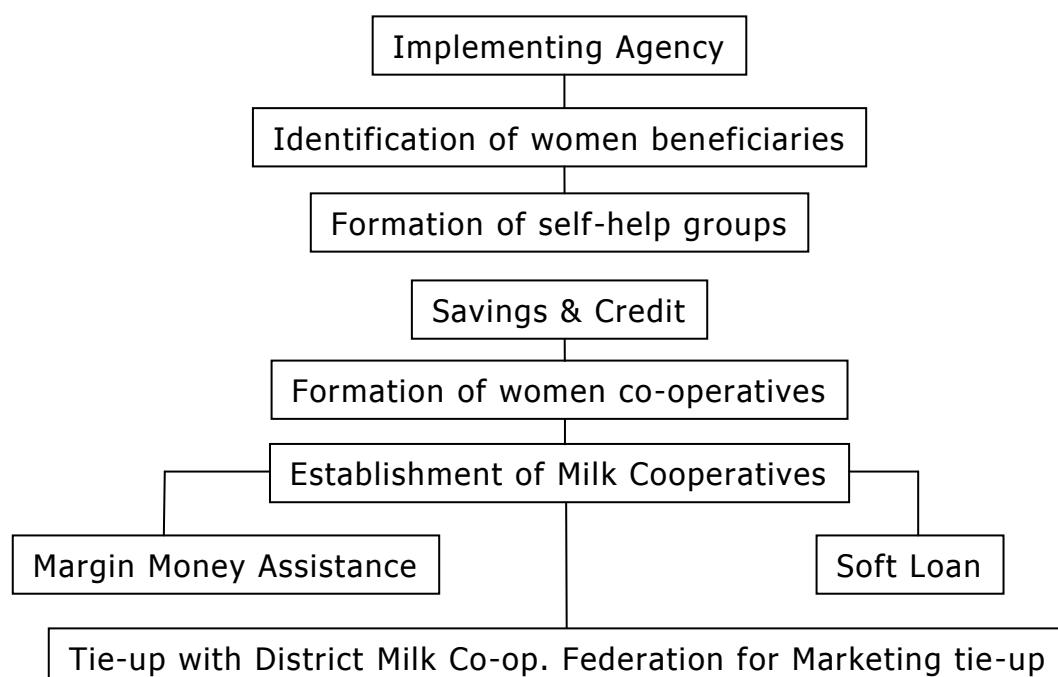
5.2 Project Approach

The strategy adopted in this project emphasis the importance of holistic approach including a judicious blend of empowerment and development activities in order to have a broader impact on the lives of poor women. Women will be trained in different areas such as animal management, commodity marketing and accounting. They will be helped with their communication and management skills in order to arm them with the confidence to interact with officials.

The following are the activities forming part of the project

- a) Identification of beneficiaries
- b) Forming self help groups
- c) Improving communication skills
- d) Savings and credit management
- e) Formation of women co-operative society
- f) Establishing small animal rearing and milk production centre as a primary income generation activity.
- g) Integration with district federations
- h) Institutional linkage

The following chart indicates the process flow of the project activities



6

Infrastructure Planning

6.1 Infrastructure

The following parameters may be adopted while determining the infrastructural requirements of the project. They serve merely as guidelines for formulating the project and may vary from project to project in accordance with their individual requirements.

a) Location

The farm should be located on a high, well drained land, near pucca road leading to milk collection centre.

b) Requirement of land (cattle farming)

The minimum requirement of land for setting up 20 animal project will be around 2440 sq. yards (about half an acre)

c) Requirement of land for fodder

Two hectare of cultivable land for fodder is required, which can be procured on lease.

d) Requirement of water

Water of good quality and in sufficient quantity should be available in the project site. On average around 2500 litres per day is required for the operations.

e) Requirement of electricity

Electricity for maintenance of general lighting is required

f) Live stock

Cows/buffaloes with a minimum lactation of 2,000 litres, low maturity age and short inter-calving period should form the foundation stock.

g) Breeding facilities

Preferably artificial insemination should be available nearby.

h) Health cover

Suitable arrangements for providing health cover to animals

i) Market

Assured market/tie-up for milk collection from the farm site is preferable.

6.2 Economic aspects

For increasing the productivity and profitability in dairying, certain aspects must be kept in view irrespective of the size of the farm. The following are some of the important aspects that need close consideration.

a) High milk yielder

A dairy animal producing less than 2000 litres of milk during one lactation period is rather uneconomical. The low producers available with the dairy farm replaced by high producers through purchase, planned cross breeding of cows and upgrading of buffaloes, will help in increasing milk yield.

b) Regular breeder

The dairy animal should conceive within 60-90 days after calving and have an inter-calving period of 350-390 days for economic milk productions.

c) Economy in feeding

Feeding is the single largest item of expenditure in commercial milk production. The dairy farmer can reduce his cost by market vigilance. Feed, both concentrate (green and cake) and dry fodder can be purchased and stored during the harvesting season.

The addition of green cultivated fodder in the daily ration can effectively bring down the feeding cost of the animal by reducing the requirements of concentrates while improving the overall quality of the feed. The green fodder during peak production period, can be converted into hay/silage for meeting lean period requirements. The legume fodder, a rich source of protein, should, wherever possible, be included in the ration. While computing concentrate in feed the cost factor must be kept in view and ingredients selected as per their availability and cost.

d) Disease centres

The individual animal or the herd should be maintained in good health. The schedule of vaccination and deworming should be strictly followed. The herd should be regularly subjected to laboratory tests for diagnosing sub-clinical diseases like mastitis, brucellosis and tubaculosis.

e) Milking

Full and hand milking should be done rather than through knuckling the thumbs to give higher pressure. The kind and efficient milkers draw more milk from the animal. Excitement, fear, beating and slow milking, retards milk yield.

f) Vigilance

The dairy management should be vigilant about daily performance of the animal. Any abrupt change in feed consumption or milk production should be cause of concern and needs immediate investigation for corrective measures.

6.3 Technical standards

Management performance standards to be strived are:

- a) *age at first calving*** : 40 - 44 months in the case of buffaloes, 24-28 months for cross breeds, 36-40 months for indigenous cattle.
- b) *lactation period*** : 280 - 300 days
- c) *dry period*** : 60 - 90 days
- d) *Service period*** : 45 - 60 days after calving
- e) *milk yield per lactation*** : 2000 - 2400 liters.
- f) *Green fodder Preferably ad lib*** : alternatively at least 25-30 kg per animal per day.
- g) *Dry fodder*** : depending on the availability of green fodder, the quantity of dry fodder may range from 2-6 kg per animal per day.
- h) *Concentrates***

If green fodder is available ad lib, then the concentrate feeding can be avoided upto milk production of 6-7 kg/day; over and above this for every 2 kg of milk of buffaloes and 3 kg of milk of cows; 1 kg of concentrate is required.
- i) *housing***

Non-slippery floor and inexpensive shed; preferably brick flooring (avoid cement flooring) with slope for easy clearing, well-ventilated shed with simple roofing, manger and adequate drainage is required.
- j) *Milking***

Two to three times a day at fixed intervals and in one sitting within 8 minutes
- k) *Milk for calf***

Leave milk according to the requirement for calf after milking, if it is not weaned at birth.

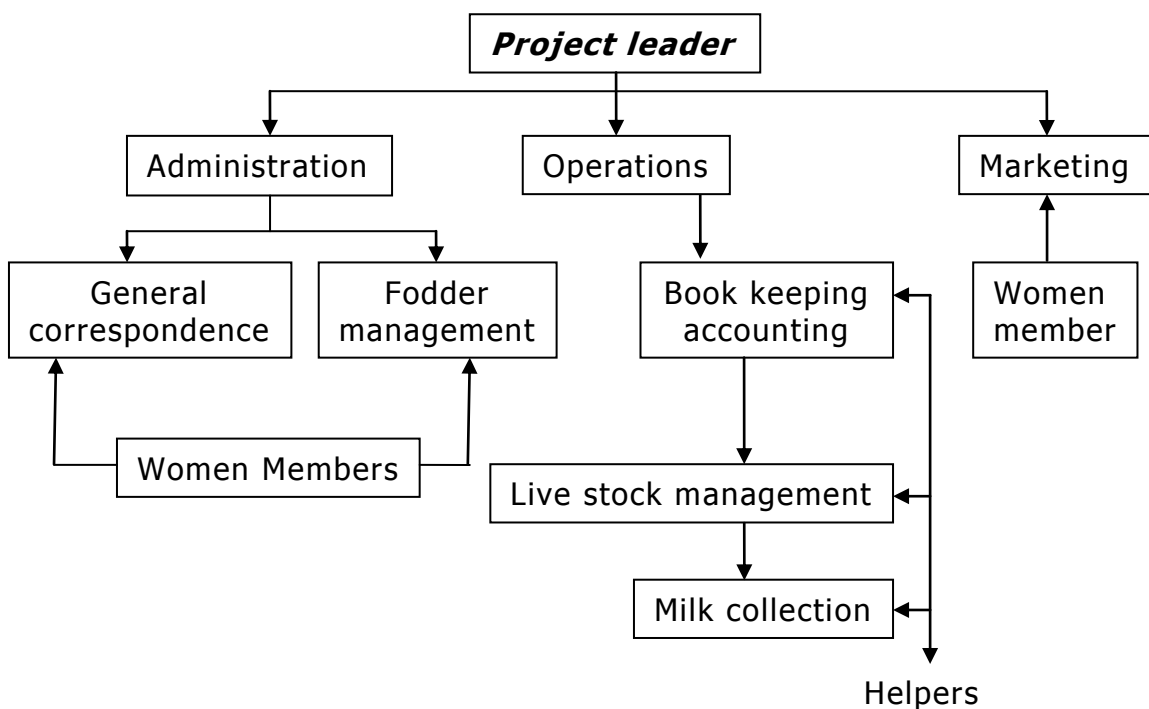
7

Man-Power Planning

As indicated in earlier chapters, the project does not require much labour force as most of the administrative and operational activities are expected to be conducted by the women co-operative members themselves with the assistance of two helpers.

The assistance of the veterinary expert will be taken as and when necessary on per call basis.

The following chart indicates the organisational structure of the project



In this project the following category of people are required to handle various sections

- | | | | |
|----|--------------------------|---|---|
| 1. | Project leader | - | 1 |
| 2. | Dy. Manager (Admn.) | - | 1 |
| 3. | Dy. Manager (Operations) | - | 1 |
| 4. | Dy. Manager (Marketing) | - | 1 |
| 5. | Helpers | - | 2 |

The members of the women co-operative will be encouraged to assume the above-cited responsibilities to eliminate employment of outside labourers. The women members will be given responsibilities in the organisational structure on rotation basis in accordance with their individual skills and qualifications. They will be paid with honorarium for which a provision has been made in this scheme.

8

Project Costing - Economics of Working

8.1 Assumptions

The economics of 20 animal dairy unit has been worked out on the following assumptions:

- The project will be located near a city/town where marketing of milk is assured or where there is a facility for collection of milk by chilling centres.
- The cost of milch buffalo has been taken at Rs. 5000/- and of a crossbred cow at Rs. 7000/- This includes the cost of transportation.
- Milch animals will be purchased in the lots of 12 and 8 at an interval of 6 months.
- At the time of purchase as also during the period of rearing, the probability of producing males and females is taken at 50:50
- Average lactation period of 300 days for both buffalo and cow followed by a dry period of 120 days for the buffalo and 90 days for the crossbred cow is taken.
- The average milk yield is taken as 8 litres/day per buffalo and 9.5 litres/day per crossbred cow.
- Average price per litre of milk has been taken at Rs. 9.00 for buffalo milk and Rs. 8.50 for cow milk.
- The cost per quintal of green fodder, dry fodder and concentrate has been taken at Rs. 30/-, Rs. 100/- and Rs. 250/- respectively.
- The cost of rearing a female calf has been taken at Rs. 500/- in the first year and Rs. 1000/- in subsequent years.
- Appreciative value of reared female calves has not been included, but they add to the stability of the co-operative. The farm bred heifers help in culling animals whose production is below average.
- A provision of 10 percent of the purchase price of the animal has been made for replacement of those animals who became difficult breeders and for those, whose production, on account of some unforeseen circumstances goes down and have to be removed.

- Male calves produced on the farm or bought during the course of purchase will be disposed off and the expenditure incurred in rearing the male calves will be covered by the sale proceeds.
- The calf mortality has been taken at 20 percent during the first year and no mortality during the remaining period. The heifers can be bred for the production of milk.

8.2 Economics of working

a) Capital investment

	Buffalo unit (in Rs.)	Cross bred cow unit (in Rs.)
1. Cost of milch animals (20 nos)	1,00,000.00	1,40,000.00
2. Cost of construction of cattle sheds	60,000.00	80,000.00
3. Cost of construction of calf shed	46,000.00	58,000.00
4. Cost of construction of small tank and hand pump	12,000.00	12,000.00
5. Cost of construction of small room for keeping equipment	15,000.00	15,000.00
6. Cost of equipment such as milk pails, buckets, cans, ropes, chairs, chaff cutters etc.	50,000.00	50,000.00
7. Deposits including lease rental deposits for land, fodder land	10,000.00	10,000.00
8. Misc. expenditure	7,000.00	5,000.00
	3,00,000.00	3,70,000.00

b) Feed and fodder requirements/day

	In milk		Dry	
	Rate per Kg	Total cost	Rate per kg	Total cost
i) Green fodder	0.30	4.50	0.30	3.00
ii) Dry fodder	1.00	7.00	1.00	5.00
iii) Concentration	2.50	10.00	2.50	5.00
		21.50		13.00

c) Days in Milk

	1st year	2nd year	3rd year	4th year	5th year
1st lot (12)	3240	3600	3240	2880	2880
2nd lot (8)	1440	1920	1920	1920	2160
Farm breed animals	-	-	720	720	1560
	4680	5520	5880	5520	6600

d) Days when dry

	1st year	2nd year	3rd year	4th year	5th year
	1080	720	1080	1440	1440
	-	960	960	960	720
				540	640
	1080	1680	2040	2940	2800

e) Operational expenditure

	1st year	2nd year	3rd year	4th year	5th year
(i) Feeding during LP	66,690	78,660	73,530	78,660	94,050
(ii) Feeding during DP	21,600	33,600	40,800	48,000	56,000
(iii) Feeding of calves	8,000	12,000	20,000	22,000	24,000
(iv) Insurance	8,000	8,000	11,200	11,200	11,200
(v) Veterinary aid	3,200	4,000	4,800	5,200	6,000
(vi) Labour	14,400	14,400	14,400	14,400	15,000
	1,21,890	1,50,660	1,64,730	1,79,460	2,06,250
Cost of replacement	10,000	10,000	10,000	10,000	10,000
	1,31,890	1,60,660	1,74,730	1,89,460	2,16,250

f) Income

	1st year	2nd year	3rd year	4th year	5th year
i) Sale of milk	1,98,900	2,34,600	2,59,300	2,74,600	3,10,500
ii) Manure	2,500	3,000	3,000	3,000	3,000
iii) Sale of culled animals	5,000	5,000	5,000	5,000	5,000
	2,06,400	2,42,600	2,67,300	2,82,600	3,18,500

g) Profit

i) Income	2,06,400	2,42,600	2,67,300	2,82,600	3,18,500
ii) Expenditure	1,31,890	1,60,660	1,74,730	1,89,460	2,16,250
Profit	74,510	81,940	92,570	93,140	1,02,250

h) Repayment of soft loan

*Loan amount Rs. 2,40,000
Interest average 12.5%*

Year	Profit	Instalment	Interest	Total payment	Surplus
1.	74,510.00	40,000.00	30,000.00	70,000.00	4,510.00
2.	81,940.00	40,000.00	26,250.00	66,250.00	15,690.00
3.	92,570.00	40,000.00	20,000.00	60,000.00	32,570.00
4.	93,140.00	40,000.00	15,000.00	55,000.00	38,140.00
5.	1,02,250.00	40,000.00	10,000.00	50,000.00	52,250.00

Basis

- Interest has been worked out on average outstanding assuming repayment would be half-yearly and the interest burden would be reduced in direct proportion to the repayment of loan.
- Depreciations has not been taken into account as the same would become part of the repayment.
- Capital assets in terms of herd size have gone up appreciably during the first years.

8.3 Total cost of the scheme

a) Intangibles like capacity building through EDPs, motivational campaigns, organisational Expenses, counselling charges etc.	Rs. 1,00,000.00
b) Tangible (capital) investments	Rs. 3,00,000.00
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	Rs. 4,00,000.00
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8.4 Means of finance

a) Capital grant (one-time capital grant)	Rs. 1,00,000.00
b) Co-operatives share contributions	Rs. 60,000.00
c) Soft loan from RMK	Rs. 2,40,000.00
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Total	Rs. 4,00,000.00
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9

Project Evaluation - Implementation Schedule

9.1 Long term objectives

The all round empowerment of women, especially socially and economically, by ensuring their direct access to, and control over, resources through a sustained process of mobilization and convergence of all the on-going sectoral programmes.

9.2 Immediate objectives

- Establishment of self reliant women self help groups
- Creation of confidence, awareness and economic upliftment.
- Strengthening and institutionalising the savings habit and their control over economic resources
- Improving access of women to micro credit

9.3 Indicators of success

- Increase in self esteem and individual confidence
- Group approach
- Increased participation in social activities
- Increase in awareness levels
- Positive change in social attitudes
- Overall improvement of individual economic status
- Greater access and control over community resources and Government schemes.

The project would be monitored basing on the logical framework of the above cited project objectives and indicators of success, through a project advisory committee constituted out of the expert/resource people from the social partners, NGOs and implementing agency.

9.4 Project implementation Schedule

The project is expected to take off within a period of 6 months from the date of conception. The various activities inter-connected with the implementation of the project are scheduled as hereunder.

Month - 1

1. Project Advisory Committee
2. Identification of beneficiaries
3. Motivational campaigns
4. preparation for the awareness camps

Month - 2

1. Formation of self help groups
2. sensitisation/management development programmes
3. Savings/credit
4. formation of women cooperative

Month - 3

1. Interaction with district milk federation
2. Procurement of land
3. Institutional linkage for credit
4. Project advisory committee

Month - 4

1. Construction of project sheds
2. Procurement of animals
3. Tie-up for marketing

Month - 5

1. Training for identified women members in animal husbandry, book keeping and accountancy
2. Project Advisory Committee

Month - 6

1. Procurement of 2nd lot of animals
2. Project evaluation
3. Auditing and reporting