

क्षेत्र विकास योजना - डेयरी विकास
AREA DEVELOPMENT SCHEME
DAIRY DEVELOPMENT
2018-2023

जिला : जूनागढ़
राज्य : गुजरात

DISTRICT : JUNAGADH
STATE : GUJARAT



NABARD



राष्ट्रीय कृषि और ग्रामीण विकास बैंक

National Bank for Agriculture and Rural Development

गुजरात क्षेत्रीय कार्यालय, अहमदाबाद

Gujarat, Regional Office, Ahmedabad.

नाबार्ड टावर, म्यूनिसिपल गार्डन के सामने, उस्मानपुरा, अहमदाबाद-380 013.

NABARD Tower, Opp. Municipal Garden, Usmanpura, Ahmedabad-380 013.



कॉरपोरेट मिशन

“सहभागिता, संधारणीयता और समानता पर आधारित वित्तीय और गैर-वित्तीय सहयोगों, नवोन्मेषों, प्रौद्योगिकी और संस्थागत विकास के माध्यम से समृद्धि लाने के लिए कृषि और ग्रामीण विकास का संवर्धन”

CORPORATE MISSION

**“PROMOTE SUSTAINABLE AND EQUITABLE AGRICULTURE
AND RURAL DEVELOPMENT THROUGH PARTICIPATIVE
FINANCIAL AND NON-FINANCIAL INTERVENTIONS,
INNOVATIONS, TECHNOLOGY AND INSTITUTIONAL
DEVELOPMENT FOR SECURING PROSPERITY”**

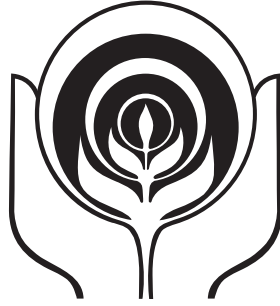
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Area Development Scheme
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NABARD

गाँव बढ़े >> तो देश बढ़े

Taking Rural India >> Forward

राष्ट्रीय कृषि और ग्रामीण विकास बैंक

गुजरात क्षेत्रीय कार्यालय, अहमदाबाद

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प्राक्कथन

कृषि क्षेत्र में पिछले कई वर्षों से लगातार कम हो रहा पूंजी-निर्माण नीति निर्माताओं की चिंता का विषय रहा है। सरकार और नाबार्ड बड़ी आधारभूत परियोजनाओं जैसे सिंचाई सुविधाओं, ग्रामीण सड़कों, पुलों, बांधों आदि के माध्यम से पूंजी-निर्माण पर कार्य कर रहे हैं, लेकिन खेत के स्तर पर पूंजी निर्माण के लिए निवेश की राशि उपलब्ध कराने में बैंक ऋण महत्वपूर्ण भूमिका निभा सकते हैं। दूसरे शब्दों में, खेती को व्यावहारिक आजीविका बनाए रखने और किसान परिवारों की आय बढ़ाने के लिए बैंक ऋण प्रवाह ज़रूरी है।

खेत के स्तर पर पूंजी निर्माण को बढ़ावा देने के एक उपाय के रूप में नाबार्ड ने ज़िला स्तर पर **क्षेत्र विकास योजनाएँ** तैयार करने और लागू करने की पहल की है। हमारा मानना है कि प्रभावी ढंग से लागू करने पर इस योजना से किसान परिवारों की आय में उल्लेखनीय वृद्धि होगी और किसानों की आय **2022** तक दुगुनी करने के माननीय प्रधानमंत्री के आह्वान में यह योजना भी एक उत्प्रेरक की भूमिका निभाएगी।

क्षेत्र विकास योजना उस क्षेत्र की विशेषताओं के अनुसार तैयार की गई, बैंक-ऋण देने योग्य, कृषि क्षेत्र की ज़िला स्तरीय योजना है जिसे अगले पाँच वर्षों (**2018-2023**) तक लागू किया जाना है। राज्य के प्रत्येक ज़िले के लिए क्षेत्र विकास योजना तैयार करने का प्रयास किया गया है।

नाबार्ड ज़िला स्तर पर संभाव्यतायुक्त ऋण योजनाएँ (**PLP**) तैयार करता है जिसमें निवेश ऋण के लिए उप-क्षेत्र-वार अनुमान दिये जाते हैं। **PLP** के अनुमान ब्लॉक-स्तर के आंकड़े एकत्रित करके तैयार किए जाते हैं और जमीनी स्तर पर उपलब्ध ऋण संभावनाओं को दर्शाते हैं। क्षेत्र विकास योजनाएँ इन आकलनों के आधार पर तैयार की गई हैं। ये योजनाएँ नाबार्ड के ज़िला विकास प्रबन्धकों (**DDMs**) ने क्षेत्र के प्रमुख बैंकों, ज़िला प्रशासन, लाइन विभागों और अन्य हितधारकों के साथ चर्चा कर के तैयार की हैं। हमें आशा है कि ज़िला स्तर पर ये योजनाएँ सभी बैंकों और ज़िला अधिकारियों के साझा प्रयासों से लागू की जाएंगी। इन प्रयासों से निवेश ऋण पर सकारात्मक असर पड़ेगा और खेतों तक ज़रूरी पूंजी पहुंचेगी।

नाबार्ड अपने सभी विकास भागीदारों का आभारी है कि उनके मूल्यवान सहयोग से ये क्षेत्र विकास योजनाएँ तैयार की जा सकी हैं। हमें आशा है कि अगले पाँच वर्ष तक इन योजनाओं के सफलतापूर्वक कार्यान्वयन और अनुप्रवर्तन में आप सभी का निरंतर सहयोग मिलता रहेगा।

सुनील चावला

(सुनील चावला)

मुख्य महाप्रबंधक



Foreword

The declining trend in capital formation in agriculture has been a continued cause of concern for the policy makers over the past several years. While capital formation through large infrastructure projects like irrigation facilities, rural roads and bridges, dams etc. is being taken care of by the Government and NABARD through various interventions, investments at farm level through bank credit can provide a significant impetus to capital formation in agriculture – in turn making agriculture sustainable as also augmenting the income of the farm household.

NABARD has taken an initiative to develop and implement Area Development Schemes (ADS) at district level as a step towards augmenting capital formation at farm level, through Institutional credit. It is envisaged, that if implemented effectively, it will significantly contribute towards additional income generation for the farm household thus acting as a catalyst in realizing the target set by the Honorable Prime Minister, of doubling of farmers' income by 2022.

An Area Development Scheme is essentially a district level farm sector, area specific bankable scheme, implementable over the next 5 years (2018-2023). An attempt has been made to draw up an ADS for each district of the state.

NABARD has been preparing Potential Linked Credit Plans (PLPs) at the district level, wherein sub sector wise estimates of the potential of investment credit is available. The PLP estimates are reflective of the ground level potential as these are summed up from block level upwards. The Area Development Schemes have been prepared based on these estimates. The Schemes have been drawn up by the District Development Managers (DDMs) of NABARD in consultation with the major banks operating in the area, district administration, line departments and other stake holders. It is expected that the schemes will be implemented and monitored at the district level with the involvement of all the Bankers and District Officials. Such a move will have a positive impact on the flow of investment credit, thus adding to the much needed capital formation at the farm level.

NABARD is grateful to all our Development Partners for giving their valuable inputs for the preparation of the ADS and solicit their continued support over the next five years to implement and monitor these Schemes successfully.

Sunil Chawla
Chief General Manager

AREA DEVELOPMENT SCHEME: DAIRY DEVELOPMENT



DISTRICT: JUNAGADH

Table of Contents

Chapter 1: Introduction.....	1
Chapter 2: District Specific Information.....	2
Chapter No 3: Project Formulation.....	6
Chapter No-4 : Project Statistics	10

Chapter 1: Introduction

Agriculture and allied activities contributes about 50% of total National Income and 70% of our population dependent on this segment. Amongst all economic activities the dairying has an enormous potential to bring about rapid economic growth in rural India. It is an important source of income to farmers including small, marginal and land less laborers.

Milk and milk products play a vital role in our Country's Agrarian Economy and also as the cheapest source of proteins (nutrients) to majority of population. Milk has a remarkable combination of protein, fat, carbohydrates, Vitamins and minerals which are essential for human health.

Manure from animals provides a good source of organic fertilizers, which improves soil fertility and increase crop yields. Cow dung, as waste / by product will also be effectively used as raw material for Earth worms to produce vermi Compost.

Thus Dairy farming provides supplementary income to farmers and other rural laborers through sale of milk and its products and surplus animals.

These activities have been accepted as sustainable economical source which help the farmers to maintain his family and farms though out the year. And it has been found very powerful activity, more particularly when there is scanty or inadequate rain. It also provides liquidity to the farmers, which is very essential to meet incidentals expenses by the farmers.

The annual output of Dairy industries is of Rs. 1,08,000 Crores on national scale. The organised sector handles only 15%, where as 40% is still retained by rural producers. The remaining 45% is handled by the traditional sector.

In organised sector, on account of wonderful roll played by Operation flood for development of dairy, we have more than 1,03,000 Milk co-operative societies in 264 Districts as per AMUL pattern, in the country.

JUNAGADH District is famous for dairy cow of Gir Breed. Gir cow is most suitable and easy to rear in Rural area by small and marginal farmers and land less laborers. The good quality animals are available in entire districts and surrounding districts.

Chapter 2: District Specific Information

2.1 Introduction

Agro-climatically a number of crops can be grown in Junagadh district but major portion of cultivable land is occupied by Ground nut, Cotton, wheat, soybean and horticultural crops viz., Mango, Sapota, Guava, Coconut etc. These existing crops and varieties are mostly been cultivated without proper care for suitable crop-rotations and other organic and non-cash practices which help in resource conservation, control of diseases, insect-pest and weeds, lowering cost of cultivation and stabilizing yields.

Farmers are also sowing some non-descript varieties and varieties not recommended/suited to this region which is certainly a factor for lower productivity. Thus, this results in low income from agriculture. To enhance their income and double it by 2022, only agriculture is not enough, they need to include and focus on other ancillary activities like agro forestry, animal husbandry.

Animal Husbandry plays a significant role in improving rural economy of the district by providing gainful employment to rural poor. Animal Husbandry provides livelihood for millions of people and is the mainstay of small and marginal farmers and landless poor. It provides financial cushion to the farmers in times of decreased agricultural production due to bad monsoon and other similar factors. In such a situation, animal husbandry, particularly dairy is the most suitable subsidiary occupation. Dairy development offers quick returns and near stable prices throughout the year. Dairy farming allied to agriculture has changed the economic scenario of Junagadh district. Activities having scope by adopting banking plan are dairy development and calf rearing.

2.2 About 62% of land holdings are with small and marginal farmers and the average size of the holdings is 2.27 ha.

The distribution of land holding in Junagadh district is given below:

Classification of Holding	Holding	Area		
		% to Total	ha	% to Total
<= 1 Ha	39245	24	25768	7
>1 to <=2 Ha	62308	38	91564	25
>2 Ha	62528	38	255355	68
Total	164081	100	372887	100

2.3 The total geographical area in Junagadh district is 502800 hectare of which area under cultivation is 430361 hectare and Net irrigated area is 255045 hectare of which area irrigated through well is 101027 ha, through canals is 31560 ha, through tanks is 600 ha and other sources of irrigation is 133787 ha.

2.4 Dairy Development is next to agriculture activity in Junagadh district. Sorath Milk Producers Union Ltd. established in 2009 played an important role in development of dairy activity in two districts viz. Junagadh and Gir Somnath. The Dairy manufactures variety of milk products with marketing link up with Gujarat Co.op Milk Marketing Federation, Anand.

2.5 Milk yield/ Production/ Per capita availability

2.5.1 Average Estimated Daily Milk (LPD) Yield By milk Animal 2015-16

Sr.No	Item	Unit	Junagadh	Gujarat	India
1	Cross Bred Cow	kg/day	9.65	8.97	7.33
2	Indigenous Gir Cow	kg/day	8.00	7.50	7.00
3	Non-Descript Cow	kg/day		3.39	2.16
4	Indigenous Buffalo	kg/day	5.64	5.15	5.76
5	Non-Descript Buffalo	kg/day		4.10	3.80

Source: 33rd SURVEY REPORT ON ESTIMATES OF MAJOR LIVESTOCK PRODUCTS FOR THE YEAR 2015-2016 GUJARAT STATE

2.5.2 Estimated Milk Production by Category-2015-16

Junagadh's (erstwhile Junagadh) rank is 5th in milk production in Gujarat

Sr.No	Item	Unit	Junagadh	Gujarat	India
1	Cross Bred Cow	000 tonnes	30.28	2649	40377
2	Indigenous Cow	000 tonnes	217.85	2111	17999
3	Non-Descript Cow	000 tonnes		702	13715
4	Indigenous Buffalo	000 tonnes	363.20	5249	55657
5	Non-Descript Buffalo	000 tonnes		1262	20802
6	Goats	000 tonnes	8.20	289	5378
	Total milk production	000 tonnes	619.53	12262	155491

Source: 33rd SURVEY REPORT ON ESTIMATES OF MAJOR LIVESTOCK PRODUCTS FOR THE YEAR (for erstwhile Junagadh) 2015-2016 GUJARAT STATE

2.5.3 per Capita Average Milk Availability-2015-16

Sr.No	Item	Unit	Junagadh	Gujarat	India
1	Average Milk Availability	Gm/day	618	506	337

Source: 33rd SURVEY REPORT ON ESTIMATES OF MAJOR LIVESTOCK PRODUCTS FOR THE YEAR (for erstwhile Junagadh) 2015-2016 GUJARAT STATE

2.6 Reasons or justification for preparing area based scheme on dairy

- The Animal husbandry Sector plays an important and vital role in Gross State Domestic Products (GSDP) of Gujarat State, which is to the tune of nearly about 5.0%.
- This sector also contributes to product nutritive food, rich in animal protein, to the general public and good supplementary income to the economically weaker section of society like SC, ST, small farmers, marginal farmers, share croppers, tenant

farmers and agricultural labourers. In addition, it offers a good employment generation opportunity, if adopted on a large commercial basis.

- A large number of rural women find good opportunities to work in several operations of livestock production.
- The agricultural production programme gets valuable organic manure provided by the livestock. Around 80% of the dung is utilized for manure. It is also useful for biogas production, which is a good source of non-conventional energy for domestic cooking and lighting.
- Contribution of livestock products towards the State income is really remarkable and consistently increasing year after year. Average contribution of livestock towards Gross State Domestic Products (GSDP) is nearly about 5.0% of total GSDP. This shows that livestock plays an important and valuable role in the growth and development.
- In view of climate changing scenario, improvement of indigenous breeds that have potential to contribute and be part of future production system should be identified, evaluated and improvement programs for them initiated/ strengthened on priority. Some of the indigenous cattle breeds with potential are Gir, Kankrej
- Traditional agriculture alone is not enough to support the rural economy, to enhance the farmers' income by 2022, they are required to start ancillary activities along with agriculture, like animal husbandry.

2.7 Forward and backward linkages:

(a) Availability of milch animals

- The milk production is about 619530 tonnes per annum and 1697 tonnes per day in the district. As per 2012 livestock census, the total population of Indigenous cows, Cross breed cows, Buffaloes and Draft Animals in the district is 489406, 25366, and 546204 respectively
- There are 104 Milk cooperative societies in the district.
- As per the 33rd Survey report 2015-16, Directorate of Animal Husbandry, Gujarat, total milk production in Junagadh district was 6,11,330 tones (Cow and Buffalo milk). The average milk yield of cross breed cows, indigenous cows and indigenous buffalo is 9.65 kg, 4.64 kg and 5.64 kg per day respectively in Junagadh district as compared to state average of 8.97 kg, 4.48 and 5.15 respectively. Junagadh is exceeding in all three categories in comparison with state average. Still, there is wide scope for improvement in productivity.
- The per capita availability in gram/day in Junagadh district is about 618 grams as compared to 506 grams in Gujarat.
- The supply of good quality animals is available at Amreli and Junagadh District.

(b) Veterinary cattle and cross breeding infrastructure:

- There are 31 first aid veterinary centers, 11 mobile veterinary center, 27 veterinary hospitals and 27 Artificial Insemination centers in the district.

(c) Feed and Fodder Development:

In Junagadh district, the total area under permanent pasture and grazing land is 25148 hectares. There is a scarcity of fodder during the summer season. Conservation of the surplus

green fodder during favorable season by hay or silage making helps in reducing the gap in dry fodder supply.

(d) Milk Marketing Infrastructure:

i)	Per day milk production	1697 tonnes
ii)	Number of dairy processing plants	1
iii)	Number of chilling plants	06
iv)	Number of bulk milk cooling units	08
v)	Number of village dairy cooperative societies	121
vi)	Number of milk routes	450 approx.
vii)	Number of milk producers covered under cooperative fold	35000 aprox.
viii)	Number of private dairies operating and their coverage	NA
ix)	Per day procurement by Cooperative dairies / Private dairies	NA
x)	Adequacy of market procurement infrastructure	There are 121 milk societies and 08 bulk milk cooling units in the district.

Source: 33rd SURVEY REPORT ON ESTIMATES OF MAJOR LIVESTOCK PRODUCTS FOR THE YEAR (for erstwhile Junagadh) 2015-2016 GUJARAT STATE

2.8 Selection of the area:

i)	Criteria adopted for selecting the villages / talukas	Based on the availability of land and water, and veterinary service centers.
ii)	Name of the villages / talukas to be covered	10 blocks of Junagadh district

2.9 Selection of beneficiaries:

- i) Criteria adopted for selecting the beneficiaries
- Interest in Dairy Farming.
 - Availability of 0.5 to 1.0 acre of land for fodder cultivation.
 - Availability of water
 - Member of the dairy cooperative society to ensure the repayment.

Chapter No 3: Project Formulation

3.1 Selection Of Area: -

- i. The project will be implemented in Junagadh district. The milk co-operative societies, affiliated to district level milk producer's co-operative union ltd. provide milk collection facilities at the door step of farmer/ proprietor throughout the year. These societies accept dairy farmers as members and promise to collect milk in any quantity produced from dairy farm. They also provide technical inputs not only to produce hygienic milk but also to produce green fodder. Balanced diet is distributed in the village at very reasonable rate in abundant quantity. Dairy takes responsibilities for extension education, training to farmers at periodical intervals and also conducts vaccination programme periodically. The veterinary dispensaries, is rendering the service for veterinary health – breeding etc.
- ii. The village level milk cooperative society is having pucca building. The collection of milk process has been computerized. Testing of Fat and calculation of milk prices is automatically calculated on the spot and milk producers are being paid price of milk at every 10 days interval on the farm site.

3.2 Selection Of Milch Animals: -

Since Gir cow breed is known for its milk production capacity and more over adjoining districts is a home tract for Gir cow, the breed has been found suitable to the climate of district. Farmer has intension to purchase ½ of Lot of Cow of 1st or 2nd lactation, preferably recently calved either from local area or from nearby District in 1st phase. After 2 – 4 months, farmer will purchase remaining half of cows of good pedigreed, having in 1st or 2nd lactation and recently calved in 2nd phase from nearby villages and nearby District as the case may be.

3.3 Targeted Segment:-

Small and Marginal farmers, SHG/ JLG members

3.4 Unit Size :-

Two Gir Cows

3.5 Unit Cost:

The unit cost presumed @ Rs.60, 000/- per animal with a variation of 10%, includes cost of shed.

3.6 Cattle Shed: -

Cattle sheds will be built on high raised ground. Farmer wants to keep a separate provision for calves. The cost of shed however will depend upon the type of material used and availability of farmer's own labour. In all it will be ensured that the cattle shed not only will provide good ventilation, (adequate sunlight and fresh air) but also protect the animals from severe cold, heat and rain. The cattle shed will have IPS flooring, with

A C sheets. The types of terraces will be manufactured from mild steel; manger and drainage will be prepared from the use of bricks.

3.7 Cattle shed space: -

(A) SPACE FOR ADULTS: -

- i.** Width : - 14.5 feet including two walls.
- ii.** Length : - 4.0 feet per animal
- iii.** Length for 20 animals: - 4.0 feet X 10Animal = 40 feet
- iv.** Length for walls : - 2 feet.
- v.** Total Length : - 42 feet
- vi.** Total Area : -14.5 feet X 82 feet X 2 partition
= 1,218 Sq. feet's
Say 1200 Sq. Feet's.

For Calves below 1 year they will be kept under loose system. The provision for equal no of calves has been worked out and the space required for the calves can be considered as 1000 Sq. feet's @ of 25 Sq. Feets per Calf.

Total shed space: -Sq. feet

I.	Adult animals	1,200
II.	Calves	500
		<hr/>
	TOTAL	1,700
		=====

3.8 Feed And Fodder: -

The Animal Husbandry expert has recommended that the requirements for maintaining a normal body weight of about 350 Kg. of animal about 25 Kg. of Green Fodder, 4-5 kg. dry fodder and 1 kg. of cattle feed per animal per day is inevitable. In addition, during the lactation period, the feed requirements is about 1 kg of cattle feed for every 2.5 liters of milk produced per animal. . Whereas cattle feed (balanced Dan) will be purchased from either milk producer's co- op society ltd. in adequate quantity as and when it is required. To minimise the cost on feed and fodder, Dairy farm will have manually operated chaff cutter.

The expenses to maintain calf up to 1 Year on the farm have not been considered, as the sale of income of calf will compensate the expenditure on this count.

3.9 Management Of Animals: -

The farmer is supposed to maintain the animals in clean and hygienic condition with provision of fresh, clean water and good quality of fodder and concentrate feed. Since he wants to produce milk hygienically as per the AMUL standards, it will be ensured that udder and teats of animals, utensils and milking hands will be washed and cleaned properly before milking.

3.10 Veterinary And A.I. Aid: -

As mentioned earlier in this report, these facilities are provided by the clinics run by Government and Junagadh Agriculture University at very marginal rate to the permanent member of milk co-operative society. As such the proposed dairy farm will not have any difficulty. The qualified veterinary Surgeons are promptly approachable through telephone system. Moreover, the secretary of village milk society is trained and provides first Aids service at the village. The frozen Semen technology is readily available in the area and the animals can be inseminated at proper time of heat by the trained secretary round the clock all days. More over the services of high pedigreed bull is also available in the area as natural course of insemination.

3.11 Milk Marketing Arrangements: -

Proper facilities for collection, transportation, processing and marketing of milk produced in the dairy farm will be ensured. The Village is having village level milk co-operative registered society situated on milk route and established since Long. This society is affiliated to Junagadh District milk producer's union ltd Junagadh having an arrangement for processing and marketing of milk throughout the country. In addition to this few private registered societies also offering facilities of collection of milk at the center for sound marketing of milk.

The village level society has provided undertaking to collect the milk regularly and credit the Bank's loan installments, every month through the sale proceeds of milk sold through them.

3.12 Insurance: -

All animals purchased at the farm will be comprehensively insured against all risks including death due to accident. Moreover, other equipments and instruments to be purchased also will be insured with one of the approved insurance company of G.I.C.

3.13 Financing Arrangements: -

The farmers/ Landless laborers will get financial requirement from near by Banks. There for borrower propose to bring margin of 20% from own Sources.

3.14 Conclusion: -

Before arriving at any conclusion, it is necessary to observe the following rates worked out in the project appraisal.

1. I. R. R. more than 15%. i.e. 22.20%
2. P.W B: 507777
3. B. C. R. 1 : 06
4. DSCR 2.22

While, verifying above ratios and appraisal of project, it reveals that project is technically feasible and economically viable. The BCR and DSCR worked out also indicates its positive features with specific observation that borrower will not have any difficulties to repay the Bank's loans. Even if project if burden with 10% more stress on different variable of recurring cost (Sensitivity Test).

Chapter No-4 : Project Statistics**TOTAL COST OF THE PROJECT**

					Margin		I	
Sr.	Particulars	Unit	Rs./Unit	Total	Margin		Bank	
No.				Cost	20.00%		Loan	
1	Cost of Animals (Including Transportation	2 No.	60500	121000	24200		96800	
1	Cost@ 500 per Animal)	2 No.	60500	121000	24200		96800	
2	Construction of Shed							
	A Gir Cow@ Sq. Ft. / Animal	0 Sq. Ft.	0		0		0	0
	B. Calf/Heifer@ 0 Sq. Ft. / Animal	0 Sq. Ft.	0		0		0	0
3	Store Room for Fodder & Milk Collection	0 Sq. Ft.	0		0		0	0
4	Milking Machine	0 No.	0		0		0	0
5	Chaff Cutter	1 No.	0		0		0	0
6	Equipment's (Rs. / Animal)	2 No.	250	500	100		400	
7	Insurance Cost							
	A. Animals (Batch-1 Animals)	2No.	2700	5400	1080		4320	
	B. Civil Structures & Equipment's	--	--		0		0	0
8	Working Capital (1st Year)	2 No.	0		0		0	0
9	Water Tank OR Aveda (Sq. Ft.)	0 Sq. Ft.	0		0		0	0
10	Wallowing Tank OR Water Pond (Sq. Ft.)	0 Sq. Ft.	0		0		0	0
11	Farm Fencing OR Compound Wall (R. Mt.)	OR. Mt.	0		0		0	0
12	Miscellaneous & Unforeseen Expenses (Rs.	2 No.	0		0		0	0
12	/ Animal)	2 No.	0		0		0	0
13	Supervisor Quarter (No. 0) (Sq. Ft)	0 Sq. Ft.	0		0		0	0
14	Labour Quarter (No.) (Sq. Ft)	0 Sq. Ft.	0		0		0	0
	Total			126900	25380		101520	

STAGE -1 FINANCE

Sr. No.	Particulars	Unit	Rs./Uni	Total Cost	Margin 20.00	Bank Loan
1	Cost of Animals (Including Cost @ 500 per Animal)	1 No.	60500	60500	12100	48400
2	construction of Shed					
	A Gir Cow@ Sq. Ft./ Animal	O Sq. Ft.	o	o	o	o
	B. Calf/Heifer@ o Sq. Ft. / Animal	O Sq. Ft.	o	o	o	o
3	Store Room for Fodder & Milk Collection	O Sq. Ft.	o	o	o	o
4	Milking Machine	O No.	o	o	o	o
5	Chaff Cutter	1 No.	o	o	o	o
6	Equipment's (Rs. / Animal)	1 No.	250	250	50	200
7	Insurance Cost					
	A. Animals (Batch-1 Animals)	1 No.	2700	2700	540	2160
	B. Civil Structures & Equipment's	--	--	o	o	o
8	Working Capital (1st Year)	1 No.	o	o	o	o
9	Water Tank OR Aveda (Sq. Ft.)	O Sq. Ft.	o	o	o	o
10	Wallowing Tank OR Water Pond (Sq. Ft.)	O Sq. Ft.	o	o	o	o
11	Farm Fencing OR Compound Wall (R. Mt.)	OR. Mt.	o	o	o	o
12	Miscellaneous & Unforeseen Expenses (Rs. / Animal)	1 No.	o	o	o	o
13	Supervisor Quarter (No. o) (Sq. Ft)	O Sq. Ft.	o	o	o	o
14	Labour Quarter (No.) (Sq. Ft)	O Sq. Ft.	o	o	o	o
	Total			63450	12690	50760

STAGE - 2 FINANCE (AFTER 6 TO 8 MONTHS FROM STAGE -1 FINANCE)

Sr. No.	Particulars	Unit	Rs./	Total Cost	Mara 20.00	Bank Loan
1	Cost of Animals (Including Cost@ 500 per Animal)	1 No.	60500	60500	12100	48400
2	Equipment's (Rs. / Animal)	1 No.	250	250	50	200
3	Insurance Cost (Batch-2 Animals)	1 No.	2700	2700	540	2160
4	Working Capital (1st Year)	1 No.	o	o	o	o
5	Miscellaneous & Unforeseen Expenses (Rs. /Animal)	1 No.	o	o	o	o
	Total			63450	12690	50760
Grand Total of Stage 1 & Stage 2 Finance				12690	25380	10152

MILK FLOW CHART FOR THE DAIRY ANIMALS

TOTAL DAYS TAKEN PER YEAR = 360 DAYS

LACTATION PERIOD = 280 DAYS

DRY PERIOD = 120 DAYS

TOTAL DAYS TAKEN PER YEAR = 360 DAYS

LACTATION PERIOD = 250 DAYS

DRY PERIOD = 150 DAYS

Total	1 st Phase		2 nd Phase		TOTAL	
	L.P.	D.P.	L.P.	D.P.	L.P.	D.P.
1 st year	25	11	18	...	43	11
2 nd year	28	10	70	12	52	20
3 rd year	28	50	110	120	52	20
4 th year	27	90	15	120	51	21
5 th year	10	12	19	120	48	24

Total	1 st Phase		2 nd Phase		TOTAL	
	L.P.	D.P.	L.P.	D.P.	L.P.	D.P.
1 st year	22	14	18	...	40	14
2 nd year	25	10	40	15	46	26
3 rd year	25	50	80	15	46	26
4 th year	25	90	12	15	46	26
5 th year	23	13	16	15	44	28

Operational cost

Assumptions

Green fodder (Rs./ Kg) = 2 Dry Fodder (Rs./Kg) = 5 Concentration (Rs./ Kg) = 16
 Kg during lactation period Kg during lactation period Kg during lactation period = 4
 Kg during dry period Kg during dry period = 10 Kg during dry period = 1

Particulars	Year					
	0	1	2	3	4	5
Feed (Rs.)	--	82100	106480	106480	105900	104160
Insurance Charge (Rs.)	--	4320	4320	4320	4320	4320
Veterinary aid (Rs.)	--	900	900	900	900	900
Labour Charge (Rs.)	--	0	0	0	0	0
Ele. And water charges (Rs.)	--	240	240	240	240	240
Misc. Expenses (Rs.)	--	0	0	0	0	0
Total (Rs.)		87641	111942	111943	111364	109625

YEAR WISE GROSS INCOME

Assumptions

Lactation period (Days) = 280 days
 Dry periods (Days) = 120
 Average Milk production (Lt/ day) = 8
 Average sale price of Milk (Rs.) = 46 / litre
 Sale of Manure (Rs/Animal/Year) = 1500
 Sale of Gunny Bags (Rs/ Animal/ Year) = 600

Particulars	Year				
	1	2	3	4	5
Milk Production (Rs.)	172000	208000	208000	204000	192000
Sale of Manure (Rs.)	1500	2000	2000	2000	2000
Sale of Gunny Bags (Rs.)	600	800	800	800	800
Total (Rs.)	174100	210800	210800	206800	194800

CASH FLOW STATEMENT

Particulars	YEAR					
	0	1	2	3	4	5
Bank Loan (Rs.)	101520					
Margin (Rs.)	25380					
Recurring cost		87640	111940	111940	111360	109620
Total cost (Rs.)	126900	87640	111940	111940	111360	109620
Income/Benefit		174100	210800	210800	206800	194800
Pre-dev. Inc. (Rs.)	36000	36000	36000	36000	36000	36000
Total Benefit	-36000	138100	174800	174800	170800	158800
Net Benefit	-162900	50460	62860	62860	59440	49180
Df @. 15 %	1	0.8695	0.7561	0.6575	0.5717	0.4972
Present worth	-162900	43875	47528	41330	33982	24452
Net Present Worth						
Df @ 20 %	1	0.8333	0.6944	0.5787	0.4822	0.4019
Present worth	-162900	42048	43650	36377	28662	19765
Net Present Worth						
Df @. 25 %	1	0.8000	0.6400	0.5120	0.4006	0.3277
Present worth	-162900	40368	40230	32184	24347	16116
Net Present Worth						
Df @. 30 %	1	0.7692	0.5917	0.4551	0.3501	0.2693
Present worth	-162900	38814	37194	28608	20810	13244
Net Present Worth (NPW) = -						
Df @. 35 %	1	0.7407	0.5487	0.4064	0.3011	0.223
Present worth	-162900	37376	34491	25546	17897	10967
Net Present Worth (NPW) = -						
Df @ 40 %	1	0.7143	0.5102	0.3644	0.2603	0.1859
Present worth	-162900	36044	32071	22906	15472	9143
Net Present Worth (NPW) = -						
Df @. 45 %	1	0.6897	0.4756	0.3280	0.2262	0.1560
Present worth	-162900	34802	29896	20618	13445	7672
Net Present Worth (NPW) = -						
Df @. 50 %	1	0.6667	0.4444	0.2963	0.1975	0.1317
Present worth	-162900	33642	27935	18625	11739	6477
Net Present Worth (NPW) = -						
Df @ 55 %	1	0.6452	0.4162	0.2685	0.1732	0.1118
Present worth	-162900	32557	26162	16878	10295	5498
Net Present Worth (NPW) = -71510						
IRR= 22.20						

BENEFIT COST RATIO {BCR}

Particulars	Year					
	0	1	2	3	4	5
Total Benefit	-36000	138100	174800	174800	170800	158800
DF @ 15%	1.0000	0.8695	0.7561	0.6575	0.5717	0.4972
Present worth	-36000	120078	132166	114931	97646	78955
Present Worth of Benefit (PWB) = 507777						
Total Cost	126900	87640	111940	111940	111360	109620
DF @. 15%	1.0000	0.8695	0.7561	0.6575	0.5717	0.4972
Present Worth	126900	76203	84638	73601	63665	54503
Present Worth of Cost (PWC) = 479509						
Benefit Cost Ratio (BCR) = 1.06						

REPAYMENT SCHEDULE :**Project cost (Rs) = Rs. 126900****Subsidy (Rs.) = Rs. 0****Margin (Rs) = Rs. 25380 (20 %)****Bank loan (Rs.) = Rs. 101520**

Month	Disbursement	O/S at the beginning of the	Interest 12.00%	Net Income	Repayment Principal	Interest Repayment	Deffered Amount	Total Outgoing	Net Surplus	DSCR
1	50760	50760	508	3742	0	508	0.00	508	3234	
2		50760	508	3742	0	508	0.00	508	3234	
3		50760	508	3742	0	508	0.00	508	3234	
4		50760	508	3742	1193	508	0.00	1701	2041	
5		49567	496	3742	1205	496	0.00	1701	2041	
6		48362	484	3742	1217	484	0.00	1701	2041	
7	50760	97905	979	4668	1478	979	0.00	2457	2211	
8		96427	964	4668	1493	964	0.00	2457	2211	
9		94934	949	4668	1508	949	0.00	2457	2211	
10		93426	934	4668	1523	934	0.00	2457	2211	
11		91903	919	4668	1538	919	0.00	2457	2211	
12		90365	904	4668	1553	904	0.00	2457	2211	
Total	Year - 1	88812	8659	50460	12708	8659	0.00	21367	29093	2.36
13		88812	888	5238	1883	888	0.00	2772	2467	
14		86929	869	5238	1917	869	0.00	2786	2452	
15		85012	850	5238	1981	850	0.00	2832	2407	
16		83030	830	5238	2001	830	0.00	2832	2407	
17		81029	810	5238	2037	810	0.00	2847	2391	
18		78992	790	5238	2057	790	0.00	2847	2391	
19		76935	769	5238	2078	769	0.00	2847	2391	
20		74858	749	5238	2114	749	0.00	2862	2376	
21		72744	727	5238	2135	727	0.00	2862	2376	
22		70609	706	5238	2156	706	0.00	2862	2376	
23		68452	685	5238	2178	685	0.00	2862	2376	
24		66274	663	5238	2200	663	0.00	2862	2376	
Total	Year - 2	64075	9337	62860	24737	9337	0.00	34074	28786	1.84

Month	Disbursement	O/S at the beginning of the	Interest 12.00%	Net Income	Repayment Principal	Interest Repayment	Deferred Amount	Total Outgoing	Net Surplus	DSCR
25		64075	641	5238	2222	641	0.00	2862	2376	
26		61853	619	5238	2244	619	0.00	2862	2376	
27		59609	596	5238	2266	596	0.00	2862	2376	
28		57343	573	5238	2289	573	0.00	2862	2376	
29		55054	551	5238	2312	551	0.00	2862	2376	
30		52742	527	5238	2351	527	0.00	2878	2360	
31		50391	504	5238	2374	504	0.00	2878	2360	
32		48017	480	5238	2398	480	0.00	2878	2360	
33		45619	456	5238	2454	456	0.00	2910	2328	
34		43165	432	5238	2479	432	0.00	2910	2328	
35		40686	407	5238	2536	407	0.00	2943	2295	
36		38150	381	5238	2561	381	0.00	2943	2295	
Total	Year - 3	35589	6167	62860	28486	6167	0.00	34653	28207	1.81
37		35589	356	4353	2427	356	0.00	2783	2171	
38		33162	332	4353	2451	332	0.00	2783	2171	
39		30711	307	4353	2507	307	0.00	2814	2139	
40		28203	282	4353	2532	282	0.00	2814	2139	
41		25671	257	4353	2558	257	0.00	2814	2139	
42		23113	231	4353	2599	231	0.00	2830	2123	
43		20514	205	4353	2625	205	0.00	2830	2123	
44		17889	179	4353	2652	179	0.00	2830	2123	
45		15237	152	4353	2678	152	0.00	2830	2123	
46		12559	126	4353	2705	126	0.00	2830	2123	
47		9854	99	4353	2732	99	0.00	2830	2123	
48		7122	71	4353	2759	71	0.00	2830	2123	
Total	Year - 4	4363	2596	59440	31226	2596	0.00	33822	25618	1.76
49		4363	44	4098	364	44	0.00	407	3691	
50		3999	40	4098	364	40	0.00	404	3695	
51		3636	36	4098	364	36	0.00	400	3698	
52		3272	33	4098	364	33	0.00	396	3702	
53		2908	29	4098	364	29	0.00	393	3706	
54		2545	25	4098	364	25	0.00	389	3709	
55		2181	22	4098	364	22	0.00	385	3713	
56		1818	18	4098	364	18	0.00	382	3717	
57		1454	15	4098	364	15	0.00	378	3720	
58		1091	11	4098	364	11	0.00	374	3724	
59		727	7	4098	364	7	0.00	371	3728	
60		364	4	4098	364	4	0.00	367	3731	
Total	Year - 5	0	284	49180	4363	284	0.00	4646	44534	10.58
Average DSCR = 2.22										

SUMMARY OF INCOME & EXPENDITURE OF THE PROJECT :

Year	Total Income	Total Expenses	Net Income	Interest	Repayment Principal	Total Liability	Total Installment	Differed Amt.	DSCR
				12.00%					
1	138100	87640	50460	8659	12708	21367	21367	0.00	2.36
2	174800	111940	62860	9337	24737	34074	34074	0.00	1.84
3	174800	111940	62860	6167	28486	34653	34653	0.00	1.81
4	170800	111360	59440	2596	31226	33822	33822	0.00	1.76
5	158800	109620	49180	284	4363	4646	4646	0.00	10.58
Total				27043	101520	128563	128563		
Average DSCR				2.22	(COMFORTABLE)				
IRR (%)				22.20	(COMFORTABLE)				
PWB				507777					
PWC				479509					
BCR				1.06	(COMFORTABLE)				

Physical and financial programme:

Bank-wise physical and financial programme is given in detail in a tabular form as suggested below:

S.No.	Particulars	Yielding 8 litres milk per day
i	Unit size	1+1
ii	Unit cost	126900
iii	Margin money (as per norm)	25380
iv	Bank loan	101520

Block-wise physical (Number of units) and Financial Plan -Gir cows (for 2017-18 and 2018-2019)			(Rs. lakh)		
Sr. No.	Blocks	Physical Plan	Financial Plan		
			Project Cost	Margin Money	Bank Loan
1	Junagadh (Rural)	200	253.80	50.76	203.04
2	Junagadh (City)	200	253.80	50.76	203.04
3	Bhesan	200	253.80	50.76	203.04
4	Keshod	200	253.80	50.76	203.04
5	Mangrol	200	253.80	50.76	203.04
6	Mendarda	200	253.80	50.76	203.04
7	Visavadar	200	253.80	50.76	203.04
8	Maliya Hatina	200	253.80	50.76	203.04
9	Vanthali	200	253.80	50.76	203.04
10	Manavadar	200	253.80	50.76	203.04
	Total	2000	25380.00	5076.00	20304.00

NABARD DEDS Scheme, if, extended for the year 2018-19.

Maximum subsidy limit is Rs. 1.50 lakh (Rs. 2 lakh for SC/ ST) or 25% for general category and 33.33% for SC/ ST category.

for a project of Rs. 1 lakh atleast two milking animals be purchased and 10 milking animals be purchased for a project cost of Rs. 6.00 lakh.

Bankable Subsidy Scheme of District Industry Center (Govt. of Gujarat) :

Maximum limit of Rs. 1.25 lakh of subsidy on a project cost of Rs. 8.00 lakh

Subsidy slabs are as shown below.

Category	Particular (Rural/ Urban)	Percentage of subsidy
General	Urban	20%
General	Rural	25%
General- Women	Urban	30%
General- Women	Rural	40%
SC/ ST	Rural and Urban	40%



NABARD Consultancy Services (NABCONS)

- Wholly owned subsidiary of NABARD
- Offers Consultancy & Advisory Services
- Pan-India presence
- 13+ Years of Experience
- 2000+ Assignments
- 100+ Full time experts
- Assignments in African & Asian Countries

Areas of Operation

Agriculture & Allied Activities
Off-farm Sector
Horticulture
Forestry
Corporate Social Responsibility
Watershed Development
Irrigation & Water Resources
Socio-economic Development

Natural Resource Management
Food Processing
Banking & Finance
Skills for Livelihood
International Business
Value Chain Management
Infrastructure Monitoring
Climate Change



Services Offered

Technical Support
Agency to MoRD,
State Govts under
DDU-GKY

Capacity Building of
Bankers,
Community Based Org,
Govt. Officials, Etc.

Diagnostic &
Sectoral
Studies

Potential Surveys
Need Assessment
Baseline Survey
Market Survey
Socio-economic
Assessment

Preparation of Detailed
project report

Feasibility/Techno-financial
Study

Project
Management
Consultancy

PMA
for
Setting Up
of Mega
Food
Park

GIS Based
Mapping/
Monitoring

Preparation of IT Policies,
Security Policies, etc.

Climate Resilient Planning
Preparation of Concept Notes
Environment &
Social Management
Plans

Gender & Social
Inclusion Plans

Third Party Monitoring
Impact Evaluation

Registered Office

NABARD Building
C-24, G Block, BKC
Bandra East,
Mumbai - 400051
Ph: 022-26539396

Corporate Office

NABARD Tower
24 Rajendra Place
New Delhi - 110125
Ph: 011-25745101

Email: headoffice@nabcons.in
Website: www.nabcons.com



E Shakti

Digitization of SHGs

Pilot
launched
in 2015

- 86 lakh SHGs, 10 crore SHG members
- Rs.16,114 crores savings with banks & Rs.61,581 crores outstanding loans

Goal : To enhance credit outreach of banks and enable online monitoring of SHGs

USP : One-click availability of social and financial information of all the SHG members

Progress : Extended to 25 districts in Phase II and now launched in 75 more districts in Phase III.

Way Forward : Additional 5.30 lakh SHGs covering around 64 lakh SHG members to be brought on digital platform over a period of 3 years, in Phase III.

- Digitisation of all the SHG accounts for financial inclusion of the members
- Access to wider range of financial Services

19,068 Villages covered

1,31,261 Groups Covered

15,11,165 Members covered

12,28,081 Aadhaar users

14,79,351 Women covered

(Progress as on 14/09/2017)

Bridging the technology gap in digitising India

Visit : <https://eshakti.nabard.org>