



# संभाव्यतायुक्त ऋण योजना 2023-24

## Potential Linked Credit Plan 2023-24

अरावली जिला

ARAVALLI DISTRICT

राष्ट्रीय कृषि और ग्रामीण विकास बैंक

**National Bank for Agriculture and Rural Development**

गुजरात क्षेत्रीय कार्यालय, अहमदाबाद

**GUJARAT REGIONAL OFFICE, AHMEDABAD**



## दृष्टि

ग्रामीण समृद्धि के लिए राष्ट्रीय विकास बैंक

## ध्येय

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

## Vision

Development Bank of the Nation for fostering rural prosperity

## Mission

Promote sustainable and equitable agriculture and rural development through participative financial and non-financial interventions, innovations, technology and institutional development for securing prosperity

संभाव्यतायुक्त ऋणयोजना  
**POTENTIAL LINKED CREDIT PLAN**

**2023 - 24**

जिला : अरवल्ली

**DISTRICT: ARAVALLI**

**STATE: GUJARAT**

**राज्य : गुजरात**



गाँव बड़े >> तो देश बड़े

**Taking Rural India >> Forward**

राष्ट्रीय कृषि और ग्रामीण विकास बैंक  
गुजरात क्षेत्रीय कार्यालय, अहमदाबाद

**National Bank for Agriculture and Rural Development  
Gujarat Regional Office, Ahmedabad**





### प्राक्कथन

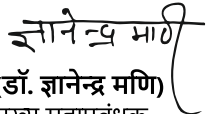
कृषि संवर्धन हेतु वित्तीय और गैर-वित्तीय सहयोगों के माध्यम से कृषि और ग्रामीण विकास के संवर्धन के लिए नाबार्ड को अधिदेश प्राप्त है। ग्रामीण समृद्धि हेतु हमारे अधिदेश और मिशन के अनुसार, जिले में उपलब्ध प्राकृतिक संपदा और आधारभूत सुविधाओं के मद्देनजर प्राथमिकता प्राप्त क्षेत्र की विभिन्न गतिविधियों के अंतर्गत दोहनीय ऋण संभाव्यता का आकलन करते हुए प्रति वर्ष, प्रत्येक जिले के लिए संभाव्यतायुक्त ऋण योजना (पीएलपी) तैयार की जाती है। इन पीएलपी से आगामी वर्ष हेतु विभिन्न क्षेत्रों में निहित संभावनाओं के विकास का पथ प्रशस्त करने हेतु सहायता मिलती है।

जिले में बैंकरों और अन्य हितधारकों के साथ व्यापक विचार-विमर्श करने के पश्चात "बॉटम अप" अप्रोच अपनाते हुए इस पीएलपी में विकास के संभावित क्षेत्रों, आधारभूत सुविधाओं में विद्यमान कमियों, भावी विकास की रणनीति पर ध्यान केंद्रित किया गया है। वर्ष 2023-24 के लिए संभाव्यतायुक्त ऋण योजना प्रस्तुत करते हुए मुझे प्रसन्नता हो रही है और मुझे आशा है कि जिले के लिए वार्षिक ऋण योजना तैयार करने में पीएलपी एक स्रोत दस्तावेज के रूप में उपयोगी सिद्ध होगी।

वर्ष 2023 को "अंतर्राष्ट्रीय बाजरा वर्ष" के रूप में घोषित करने और उसे सुपरफूड के रूप में बढ़ावा देने की पृष्ठभूमि में, किसानों द्वारा बाजरे की खेती पर अधिक जोर दिया जाना चाहिए। जलवायु परिवर्तन और उससे संबन्धित जोखिमों को ध्यान में रखते हुए, यह आवश्यक है कि बाजरे की विशिष्टताएँ- उच्च उत्पादकता, शुष्क, उच्च तापमान की स्थितियों में अल्पावधि फसलचक्र को देखते हुए बाजरे की खेती को बढ़ावा देने की आवश्यकता है। तदनुसार, हमने 2023-24 की संभाव्यतायुक्त ऋण योजना में बाजरे पर विशेष ध्यान दिया है।

"आज़ादी का अमृत महोत्सव" मनाने के अवसर पर कृषि व सम्बद्ध गतिविधियों और सूक्ष्म लघु मध्यम उद्यम (एमएसएमई) क्षेत्र को दिये जाने वाले बैंक ऋण की महत्वपूर्ण भूमिका है। इससे आर्थिक गतिविधियों को बढ़ावा मिलेगा, किसानों, ग्रामीण शिल्पकारों और उद्यमियों की आय बढ़ेगी, जिसके परिणामस्वरूप वर्ष 2047 तक भारत को एक विकसित राष्ट्र बनाने के राष्ट्रीय लक्ष्य को प्राप्त किया जा सकेगा। मुझे विश्वास है कि संभाव्यतायुक्त ऋण योजना में आकलित ऋण संभाव्यताओं और सुझाई गई गैर-ऋण गतिविधियों से हितधारकों को इस दिशा में मार्गदर्शन प्राप्त होगा।

मैं, इस दस्तावेज़ को तैयार करने में भारतीय रिजर्व बैंक, जिला कलेक्टर, अग्रणी जिला प्रबंधक, समानांतर विभागों, बैंकरों, गैर सरकारी संगठनों, अन्य हितधारकों द्वारा हमारे जिला विकास प्रबन्धकों को दिए गए सहयोग, समर्थन, सहायता तथा बहुमूल्य सुझाव के लिए अपना हार्दिक धन्यवाद व्यक्त करता हूँ। मुझे विश्वास है कि यह दस्तावेज़ सभी हितधारकों को बेहतर कार्यनीति तैयार करने और आधार स्तर पर प्रभावी रूप से उसे लागू करने और वर्ष 2027 तक गुजरात राज्य की अर्थव्यवस्था को \$500 बिलियन तक पहुंचाने का मार्ग प्रशस्त करेगा।

  
(डॉ. ज्ञानेन्द्र मणि)  
मुख्य महाप्रबंधक

### FOREWORD


NABARD has been given the mandate to promote agriculture and rural development through financial and non-financial interventions for fostering rural prosperity. In consonance with our mandate and mission of ensuring rural prosperity, Potential Linked Credit Plans (PLPs) for each district are prepared every year estimating the exploitable credit potential under various activities of priority sector keeping in view the natural endowments and infrastructure available in the district. PLPs help to streamline the trajectory of growth potential in various areas for the forthcoming year.

The PLP, focussing on potential areas for growth, existing deficiencies in Infrastructure and strategies for future growth, has been prepared after extensive consultation and discussions with bankers and other stakeholders in the district after adopting a "Bottom up" approach. I am happy to present the Potential Linked Credit Plan for the year 2023-24 and I am hopeful that it would serve as a resourceful document for the preparation of Annual Credit Plan for the District.

In the backdrop of the year 2023 been announced as the 'International Year of Millets' the potential in cultivation and promotion of millets as super food, may be tapped by farmers. In the wake of Climate change and related risks, it is a necessity to promote millets due to its qualities like high productivity and short growing season under dry, high-temperature conditions. We have accordingly strived to focus on millets in the PLPs of 2023-24.

As we are celebrating the 'Azadi ka Amrut Mahotsav' the role of bank credit to agriculture & allied activities and MSME sectors gains an utmost importance to pave the way for boosting economic activities and increasing income level of farmers, rural artisans and entrepreneurs for achieving the National goal of making India a developed nation by 2047. I am sure that the credit potential assessed in the PLP and the non-credit activities suggested would guide the stakeholders in this direction.

I extend my sincere gratitude to Reserve Bank of India, District Collector, Lead District Manager, Line departments, Bankers, NGOs and other stakeholders for their cooperation, support, assistance and valuable suggestions provided to our District Development Manager for preparing this document. I am confident that this document would act as a reference to all stakeholders to draw their strategies for effective & efficient deployment at the ground level which would pave the way for realisation of \$500 billion economy of the State of Gujarat by 2027.

  
(Dr. Gyanendra Mani)  
Chief General Manager



## POTENTIAL LINKED CREDIT PLAN 2023-24

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## EXECUTIVE SUMMARY

### 1. District Characteristics

Aravalli is primarily an agricultural district with Cotton and wheat as the predominant crops. The other major crops cultivated are oilseeds, maize, potato etc. The small and marginal farmers are 67414 in the district constituting 66% of the total farmers' population.

The Potential Linked Credit Plan (PLP) for 2023-24 has been prepared aligning with the revised RBI guidelines on Priority Sector Lending. It estimates credit flow of ₹4,01,005.94 lakh, of which, Crop Loan has a major share of ₹1,63,085.17 lakh. Term loan under agriculture is assessed at ₹73,302.68 lakh. Under MSME, ₹26,052.00 lakh has been assessed as potential and balance at ₹1,38,566.09 lakh has been estimated for other sectors like Exports, Education, Housing, etc. The activity-wise and block-wise assessment of potential is presented in Annexure I. Suggested action Points in respect of major sectors and infrastructure/non-credit inputs are as under:

**2. Sectoral trends in credit flow:** The credit flow in the district is skewed. Crop loan is achieved to the full, but there is a gap in achievement of term-loan and MSME sector. Credit flow in housing loan sector was good before the pandemic set in. Credit flow in "Other Sectors" was to the extent of 55%.

**3. Sector / Sub Sector-wise PLP Projections for 2023-24:** Taking these major factors into account, the Potential-linked Credit Plan for the year 2023-24 has been estimated by NABARD. Keeping in tune with Priority Sector guidelines, the potentials are assessed under seven sectors identified by RBI, viz., Agriculture (Crop loan, Farm credit, Agri Infrastructure and Ancillary Activities), MSME, Export, Education, Housing, Renewable Energy and Other Priority Sector (OPS). The total plan under Priority Sector Lending (PSL) for 2023-24 is placed at ₹4,01,005.94 lakh. The PLP projection for 2023-24 is higher by ₹3,16,594.12 lakh. The summarized status of PLP 2023-24 under various sectors / sub-sectors is presented here.

#### i. Crop Production, Maintenance and Marketing

Adoption of advanced technologies for the restoration of soil health, mechanization, cultivation of suitable remunerative crops and effective pest and disease management are essential to step up the agricultural production. Banks may adopt Rupay KCC as an effective credit delivery mechanism and educate the non loanee farmers to subscribe to PMFBY, the crop insurance scheme.

#### ii. Water Resources and Land Development

As monsoon continues to be erratic, need for greater focus lies in water resource management. Farmers need to be incentivized to save water by adopting suitable cropping pattern on their farms. There is a need for conserving soil moisture security so that "more crop per drop" can be achieved.

#### iii. Farm Mechanization

Shortage of labour is a serious threat affecting the development of agriculture in the district. Enhanced credit flow for farm mechanization should be ensured. Banks may increasingly adopt the strategy of JLG financing to enable SF/MF to purchase farm machineries and equipments.

#### iv. Animal husbandry

Animal husbandry, particularly dairy is the most suitable subsidiary occupation. As dairy offers quick returns and near stable prices, banks may finance liberally ensuring tie-up arrangements with Dairy farms/societies. Banks may also encourage farmers to take up calf rearing and fodder cultivation, as viable activities with financial assistance.

**4. Developmental Initiatives:** This district range gives rise to a number of Rivers in which Luni, Sakhi, Banas, Sabarmati and Sahibi are the prominent ones. Sabar Dairy is the instrumental in development of dairy activity in the district. Its handling 35 lakh liters per day. Hon'ble Prime Minister recently inaugurated and laid foundation stone of multiple projects worth more than ₹1000 cr. These projects will empower local farmers and milk producers and increase their income. This will also give boost to the rural economy in the district.

#### **5. Thrust areas for 2023-24**

- Conversion of PACS as MSC under Agri Infrastructure Fund.
- Formation and Promotion of FPOs under the new Central Sector Scheme for promotion of FPOs.
- Infrastructure development under Fisheries sector Pradhan Mantri Matsya Sampada Yojana (PMMSY) for the development of marine and inland fisheries.
- Support to private investment in dairy processing, value addition and cattle feed infrastructure under Animal Husbandry Infrastructure Development Fund.
- Capacity building of SHGs (Sakhi mandals) and upscaling of SHG linkage.
- Better monitoring and review at BLBC, DCC meetings for achievement of the goal of doubling of farmers' income.

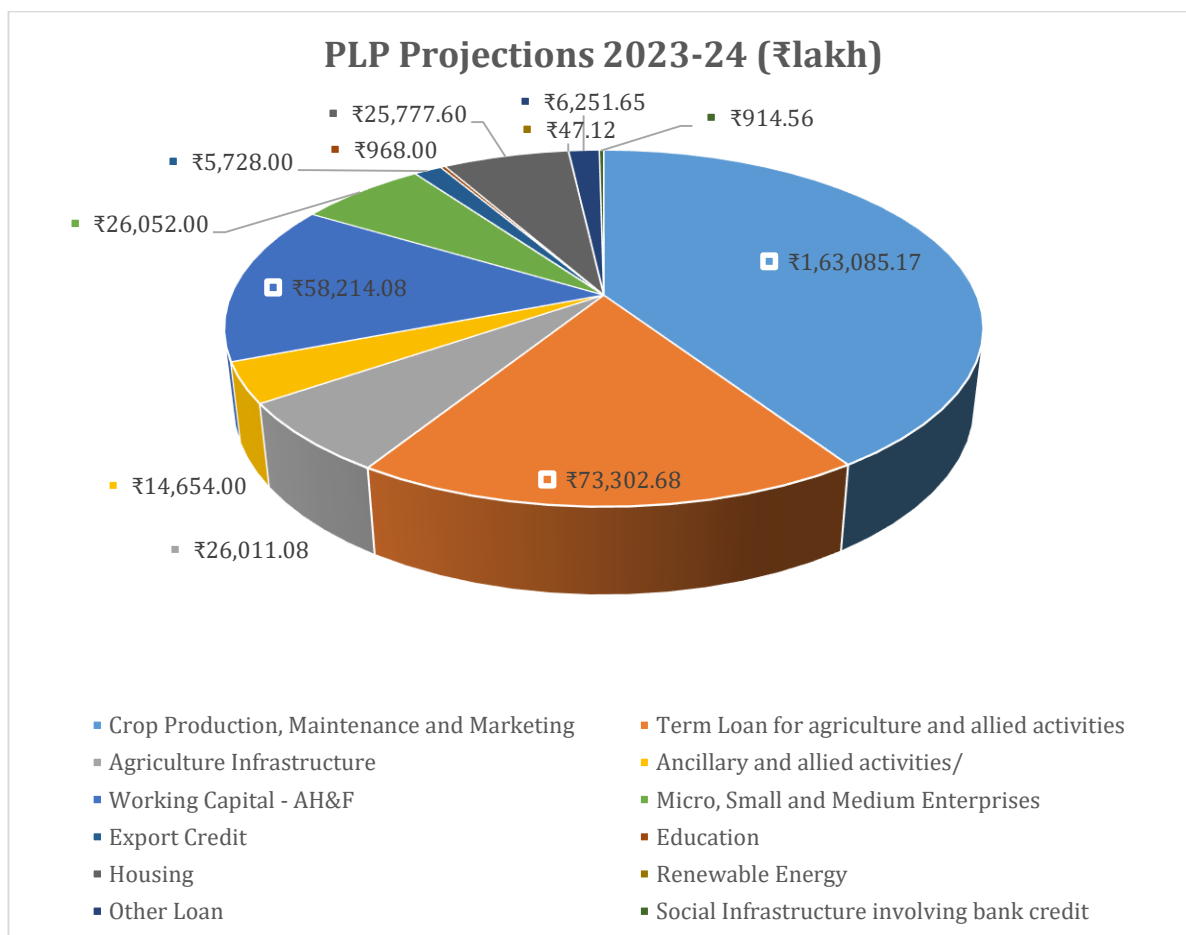
**6. Conclusion:** The major driver of private sector capital formation is investment credit. Immediate thrust is required to raise its share in the total agriculture credit. The emphasis is also for collectivization of Agricultural produce for Enhancing Farmer's Income which is also the theme of this year PLP. The document, has therefore, been prepared with emphasis on accelerating the pace of capital formation in agriculture and allied sectors. This goal can be achieved with the coordinated efforts of all the stakeholders.

**7. Way Forward:** Despite all constraints like pandemic, drought, etc., the agricultural sector in the district continued to perform well in the last two years. Maize, cotton, tomatoes, cabbage, cauliflower and wheat are flooded the market. The FPO movement, opening of markets, Atmanirbhar Bharat call by GoI and the support extended to it by the State Govt. will be the game changers in the coming years.

Appendix-A

(₹lakh)

Sr. No.	Particulars	PLP Projections 2023-24
<b>A</b>	<b>Farm Credit</b>	
i	Crop Production, Maintenance and Marketing	₹1,63,085.17
ii	Term Loan for agriculture and allied activities	₹73,302.68
	<b>Sub Total</b>	<b>₹2,36,387.85</b>
<b>B</b>	<b>Agriculture Infrastructure</b>	<b>₹26,011.08</b>
<b>C</b>	<b>Ancillary and allied activities/</b>	<b>₹14,654.00</b>
<b>D</b>	<b>Working Capital - AH&amp;F</b>	<b>₹58,214.08</b>
<b>I</b>	<b>Credit Potential for Agriculture (A+B+C+D)</b>	<b>₹3,35,267.01</b>
II	Micro, Small and Medium Enterprises	₹26,052.00
III	Export Credit	₹5,728.00
IV	Education	₹968.00
V	Housing	₹25,777.60
VI	Renewable Energy	₹47.12
VII	Other Loan	₹6,251.65
VIII	Social Infrastructure involving bank credit	₹914.56
	<b>Total Priority Sector (I to VIII)</b>	<b>₹4,01,005.94</b>



Appendix – B

Summary of Sector / Sub-sector wise PLP projections

(₹lakh)

Sr. No.	Particulars	PLP Projections 2023-24
I	Credit Potential for Agriculture	
A	Farm Credit	
i	Crop Production, Maintenance and Marketing	₹1,63,085.17
ii	Water Resources	₹14,256.79
iii	Farm Mechanisation	₹4,921.60
iv	Plantation and Horticulture (including sericulture)	₹14,714.65
v	Forestry and Waste Land Development	₹184.73
vi	Animal Husbandry – Dairy	₹25,479.76
vii	Animal Husbandry – Poultry	₹2,702.72
viii	Animal Husbandry – Sheep, Goat, Piggery, etc.	₹193.38
ix	Fisheries (Marine, Inland, Brackish water)	₹276.25
x	Others – Bullock, Bullock cart, etc.	₹10,572.80
	<b>Sub Total</b>	<b>₹2,36,387.85</b>
B	Agriculture Infrastructure	
i	Construction of storage facilities (Warehouses, Market yards, Godowns, Silos, Cold storage units/ Cold storage chains)	₹3,698.88
ii	Land development, Soil conservation, Watershed development	₹1,695.18
iii	Others (Tissue culture, Agri bio-technology, Seed production, Bio pesticides/ fertilizers, Vermin composting)	₹20,617.02
	<b>Sub Total</b>	<b>₹26,011.08</b>
C	Ancillary activities	
i	Food and Agro processing	₹4,105.50
ii	Others (Loans to Cooperative Societies of farmers for disposing of their produce, Agri Clinics/ Agri Business Centres, Loans to PACS / FSS/ LAMPS, Loans to MFIs for on lending)	₹10,548.50
	<b>Sub Total</b>	<b>₹14,654.00</b>
D	Working Capital of AH, Poultry, SGP & Fisheries	₹58,214.08
	<b>Credit Potential for Agriculture (A+B+C+D)</b>	<b>₹3,35,267.01</b>
II	Micro, Small and Medium Enterprises	
i	MSME – Investment Credit	₹22,700.00
ii	MSME-Working Capital	₹3,352.00
	<b>Total MSME</b>	<b>₹26,052.00</b>
III	Export Credit	₹5,728.00
IV	Education	₹968.00
V	Housing	₹25,777.60
VI	Renewable Energy	₹47.12
VII	Others (Loans to SHGs/ JLGs, loans to distressed persons to prepay non-institutional lenders, PMJDY, loans to state sponsored organisations for SC/ST)	₹6,251.65
VIII	Social Infrastructure involving bank credit	₹914.56
	<b>Total Priority Sector</b>	<b>₹4,01,005.94</b>





District Profile - Aravalli																	
District -		Aravalli		State -		Gujarat		Division -		North Gujarat							
1. PHYSICAL & ADMINISrATIVE FEATURES-Aravalli				2. SOIL & CLIMATE Aravalli													
Total Geographical Area (Sq.km)		3308		Agro-climatic Zone		13 Sub Region North of Gujarat											
No. of Sub Divisions		2															
No. of Blocks		6		Climate		Hot											
No. of Villages (Inhabited)		682		Soil Type		Hard rock, formation sand stone and alluvial											
No. of Panchayats		320															
3. LAND UTILISATION [Ha] Aravalli				4. RAINFALL Aravalli & GROUND WATER SK & Aravalli													
Total Area Reported (ha.)		314300		Rainfall [in mm]		Normal				2019		2020		2021			
Forest Land		50000		717		829		Actual		818		717		1108			
Area Not Available for Cultivation		17500				Variation from Normal				(-) 11		(-) 112		(-) 116			
Permanent Pasture and Grazing Land		8100		Availability of G		Net annual recharge				Net annual draft				Balance			
Land under Miscellaneous Tree Crops		15800				940.98				687.04				131.42			
5. DISTRIBUTION OF LAND HOLDING -Aravalli																	
Current Fallow		NA		Classification of Holding				Holding				Area					
Other Fallow		5600						Nos.		% to Total		Ha.		% to Total			
Net Sown Area		209100		<= 1 Ha				49360		40.96		25354.69		12.01			
Total or Gross Cropped Area		328600		>1 to <=2 Ha				36370		30.18		52698.87		24.96			
Area Cultivated More than Once		119500		>2 Ha				34782		28.86		133075.82		63.03			
Cropping Intensity [GCA/NSA]		157.15		Total				120512		100.00		211129.38		100.00			
6. WORKERS PROFILE [in '000] Aravalli				7. DEMOGRAPHIC PROFILE-Aravalli													
Cultivators		468952		Category		Total		Male		Female		Rural		Urban			
Of the above, Small/Marginal Farmers		333045		Population		1023724		524103		499621		897162		126562			
Agricultural Laborers		135907		Scheduled Caste		60952		31295		29657		52554		8398			
Workers engaged in Household Industries		2673		Scheduled Tribe		210789		105746		105043		203433		7356			
Workers engaged in Allied Agro-activities		65299		Literate		670668		393797		276871		575728		94940			
Other workers		106406		BPL (Families)		NA		NA		NA		NA		NA			
8. HOUSEHOLDS [in '000] Aravalli				9. HOUSEHOLD AMENITIES [Nos. in '000 Households] Aravalli													
Total Households		NA		Having brick/stone/concrete hou		NA		Having electricity supply						206731			
Rural Households		NA		Having source of drinking water		206731		Having independent toilets						65616			
BPL Households in Aravalli		NA		Having access to banking service		112728		Having radio/TV sets						77993			
10. VILLAGE-LEVEL INFRASTRUCTURE [No]-Aravalli				11. INFRASTRUCTURE RELATING TO HEALTH & SANITATION [No]-Aravalli													
Villages Electrified		682		Anganwadis				NA		Dispensaries				31			
Villages having Agriculture Power Supply		682		Primary Health Centers				49		Hospitals				103			
Villages having Post Offices		248		Primary Health Sub-Centers				56		Hospital Beds				993			
Villages having Banking Facilities		142															
Villages having Primary Schools		1360		Fertiliser/Seed/Pesticide Outlets				1203		Agriculture Pump sets[No]				37829			
Villages having Primary Health Centers		492		Total N/P/K Consumption [MT]				460		Pump sets Energised [No]				21869			
Villages having Potable Water Supply		682		Certified Seeds Supplied [MT]				122		Agro Service Centers [No]				20			
Villages connected with Paved Approach		682		Pesticides Consumed [MT]				0		Soil Testing Centers [No]				4			
13. IRRIGATION COVERAGE [Ha] -Aravalli																	
Total Area Available for Irrigation (NIA +		314300		Agriculture Tractors [No]				16120		Plantation nurseries [No]				125			
Irrigation Potential Created		209100		Power Tillers [No]				8101		Farmers' Clubs [No]				18			
Net Irrigated Area(Total area irrigated at		179300		Threshers/Cutters [No]				980		KVks [No]				1			
14. INFRASTRUCTURE FOR STORAGE, TRANSPORT & MARKETING-Aravalli																	
Area irrigated by Canals / Channels		16800		Rural/Urban Mandi/Haat [No]				6		Wholesale Market [No]				6			
Area irrigated by Wells		182300		Length of Pucca Road [Km]				1892.16		Warehouse Godown [No]				125			
Area irrigated by Tanks		3600		Length of Railway Line [Km]				NA		Godown Capacity [MT]				37500			
Area irrigated by Other Sources		2200		Public Transport Vehicle [No]				182458		Cold Storage [No]				40			
Irrigation Potential Utilized (Gross Irrigat		328600		Goods Transport Vehicle [No]				84682		Cold Store Capacity [MT]				200000			
15. AGRO-PROCESSING UNITS- Aravalli				16. AREA, PRODUCTION & YIELD OF MAJOR CROPS- Aravalli													
Type of Processing Activi		No of units		Cap.[MT]		Crop		2020-21		2021-22				Avg. Yield [Kg/Ha]			
Food (Rice/Flour/Dal/Oil)		30		NA				Area in '00' Ha		Production '00' Ha		Area in '00' Ha		Production in '00' Ha		Yield(Kg/Ha)	
Sugarcane (Gur/Khandsari)		-		NA		Rice		6084		3012		7045		3101		44.02	
Fruit (Pulp/Juice/Fruit drin		1		NA		Wheat		87432		3280		94138		3354		3.56	
Spices (Masala Powders/Past		5		NA		Jowar		0		0		0		0		0.00	
Dry -fruit (Cashew/Almond)		1		NA		Bajra		554		1200		551		1400		254.08	
Cotton (Ginning/Spinning)		8		NA		Total Foodgrain		94070		7492		101734		7855		7.72	
Milk (Chilling/Cooling/Proce		3		NA		Cotton		42505		567		13767		43767		317.91	
Meat (Chicken/Mutton)		-		NA		Groundnut		76991		2340		66623		164525		246.95	
Animal feed (Cattle/Poultry		-		NA				Production of Cotton(lint), Jute, Mesta etc. are in Bales(177.8 kg per bale in India)									
17. ANIMAL POPULATION AS PER CENSUS 2012[in Nos.] -Ar				18. INFRASTRUCTURE FOR DEVELOPMENT OF ALLIED ACTIVITIES- Aravalli													
Category of anim		Total		Male		Female		Vet. Hospitals/Dispensaries [No]		40		Animal Markets [No]				Nil	
Cattle - Cross bred		129699		-		-		Disease Diagnostic Centers [No]		18		Milk Collection Centers [No]				1330	
Cattle - Indigenous		234824		-		-		Artificial Insemination Centers [		86		Fishermen Societies [No]				7	
Buffaloes		350568		-		-		Dairy Cooperative Societies [No]		1063		Poultry hatcheries [No]				1	
Sheep - Indigenous		19460		-		-		Improved Fodder Farms [No]		nil		Slaughter houses [No]				nil	
Goat		175778		-		-											
Pig - Indigenous		-		-		-		Fish		Production [MT]		-		Per cap avail. [gm/day]		-	
Horse/Donkey/Cam		403/418		-		-		Egg		Production [lakh No]		-		Per cap avail. [No/p.a.]		-	
Poultry - Indigenous		276000		-		-		Milk		Production ['000 MT]		-		Per cap avail. [gm/day]		-	
Data Source : District Statistical Department, Agri Department & Statistical Report																	

### **District Profile**

20. Aravalli District is situated in North Eastern part of Gujarat State. It is situated between 23.03 N *latitude* and 24.30 N *latitude* & 74.43 E *longitudes* to 73.39 E *longitudes*. The *total area* of the *district* is 3232 Sq.km. North – Eastern *part* of the *district* is covered by the rows of "Aravalli" hills.

The Aravalli is a range of mountains running The lithology of the *area* shows that the base rocks of Aravalli are of Mewar Gneiss, formed by high-grade regional. The maximum daytime *temperature* during the summer varies between 40 and 46 °C (104 and 115 °F). The average rainfall is 104 mm.has rich mineral reserves like limestone, marble, granite, building stone and china clay.

**Major food/ commercial and plantation/ horticulture crops:** Potato, Cotton, Jowar, Bajra, Pulses, Groundnut, Sesame, Castor, Mustard, Cumin, etc. are the main seasonal crops of this District. Pomegranate, Papaya, Citrus, dragon fruits are the major horticulture crops.

21. **Predominant Activities** prevalent in the district are Agriculture and Allied Activities and Ceramic, marble, Argo- processing, etc. under non-farm activities. The Aravallis are rich in minerals and mining in the hill range for **red badarpur sand, silica, quartz and other stones** has been on for decades. These materials are always in demand for building activities and construction.

22. **Factors Affecting Growth in GLC:** Agriculture is the mainstay of the district with about 80% of the credit flow being directed towards it. In addition to the variety of crops being grown in the district, it is also credited with second highest milk production in the State. The district also tops in Micro Irrigation System, with drip and sprinkler being installed by majority of the farmer. There is a huge demand for tractor. Thus, there is a healthy credit flow in agriculture sector. Critical Interventions Required under major sectors for harnessing the potential estimated under PLP 2023-24: Out of the total PLP estimated credit of ₹400143.52 lakh, credit for agri sector is pegged at ₹276471.92 lakh, constituting 79%. The bankers need to gear up to achieve this potential. The crop loan achievement is almost cent percent but term-loan is achieved only to the extent of 65%.

The banks need to cover up the gap. With such high and variety of crop production, there is a good demand for creation of Agri Infrastructure facilities and the subsidy factor will need to continue.

### **23. Issues Critical to district:**

- a) Low Availability of ground water in the district and its quality is a matter of concern. Suitable steps for supply of drinking water are required in over exploited/critical blocks like Modasa and Meghraj.
- b) There is a menace of wild animals such as wild pig, Neel Gay, Blue Bull etc. which poses threat to seeds planted as also to growing crops in the district. Community based "farm fencing"/ protection wall for entire farm area of community with nearby forest/ riverbanks is very cost effective and may be considered as essential requirement by Agriculture Development.

### **24. Level of Poverty:**

As per census 2011, there are 225808 rural house-hold and 48867 urban house-hold with total 274675 house-hold in this district. BPL family in the district having 0 to 16 score is 41665 and having 17 to 20 score is 54038, thus family below poverty line is 34.84%.

## 25. Cooperatives

**a.** Status: As on 2020-21, 1772 Cooperative Societies are established in Aravalli district. The sector wise Cooperative Societies in the District is as under:

Sr. No.	Type of society	Nos.
1	Central Coop Bank	0
2	PACS	289
3	Nagrik bank	5
4	Primary Non-Agri Credit Societies	125
5	Marketing Societies	46
6	Processing Societies	5
7	Milk Societies	893
8	Livestock Societies	2
9	Farming Societies	12
10	Fisheries Societies	7
11	Consumer Societies	4
12	Housing Societies	79
13	Labour Contract Societies	99
14	Irrigation societies	0
15	Transport societies	74
16	Industrial Societies	65
17	Union & Institute	5
18	Sugar societies	0
19	Other Non-credit societies	62
<b>Total</b>		<b>1772</b>

**b.** Potential for formation of Cooperatives: As many as 893 milk suppliers' societies(50.4%) are registered in these 1772 cooperative societies. There is good potential available for cooperative activities in the Agriculture and allied sector. All blocks are covered by some society or the other.

## BANKING PROFILE

### (I) Introduction

As on 31 March 2022, the district has 63 branches of 18 Commercial Banks, 15 branches of Baroda Gujarat Gramin Bank, 37 branches of the Sabarkantha DCCB Ltd. 05 branches of Gujarat State Cooperative Agriculture and Rural Development Bank Ltd and 8 branches of Private Sector banks. There were 283 PACS / LAMPS affiliated with SK DCCB.

Deposits: The total outstanding deposits as on 31.03.2021 was ₹5140 crore which reached to ₹9382 crores as at the end of 31.03.2022, recording a growth of 54%.

CD ratio: The CD Ratio of the district for three years was 97.25%, 98.50% and 99% as on 31.03.2020, 31.03.2021 and 31.03.2022 respectively.

### (II) Agency wise analysis of Priority Sector Achievement of Aravalli District

(Rs.in lakh)

Agencies / Activities	Commercial Banks	Co-ops	RRBs	Total
<b>2021-22</b>				
Total priority Sector lending <b>Targets</b>	84638.57	34733.99	19863.28	<b>139235.84</b>
Total priority Sector <b>Achievement</b>	84538.57	34533.99	19663.28	<b>138735.84</b>
<b>Achievement%</b>	<b>99.88%</b>	<b>99%</b>	<b>99%</b>	<b>99.64%</b>

**(III) Sector wise analysis** of the pattern of finance indicates that over all Priority sector targets have been achieved by 99.64% during 2021-22. Against the target of ₹139235.84 lakh for 2021-22, the achievement was 99.64% at ₹138735.84 lakh.

**(IV) Sabarkantha DCCB** (working in Aravalli district) was first to achieve 100% CBS enabled branches in the State among all the cooperative banks. NABARD has given a grant support of ₹2.32 Crores for CBS to DCCB. All the branches have CBS system. RRB and DCCB in the district have started issuing RuPay card through grant support by NABARD.

Banking Profile										
District -	Aravalli		State -		Gujarat		Lead Bank -		Bank of Baroda	
1. NETWORK & OUTREACH (As on 31/03/2022)										
Agency	No. of	No. of Branches				No. of non-formal agencies associated			Per Branch	
		Total	Rural	Semi-urban	Urban	m FIs/m FOs		BCs/BFs	Villages	Househ
Commercial Banks	18	63	45	18	NA	NA		120	NA	NA
Regional Rural Bank	1	15	10	5	NA	NA		42	NA	NA
District Central	1	37	33	4	NA	NA		NA	NA	NA
Coop. Agr. & Rural	1	5	3	2	NA	NA		NA	NA	NA
Primary Agr. Coop.	289	289	289	0	NA	NA		NA	NA	NA
Others	7	7	0	7	NA	NA		NA		NA
All Agencies	317	416	380	36				162		
2. DEPOSITS OUTSTANDING										
Agency	No. of accounts					Amount of Deposit [Rs.lakh]				
	31-Mar-20	31-Mar-21	31-Mar-22	Growth (%)	Share(%)	31-Mar-20	31-Mar-21	31-Mar-22	Growth(%)	Share(
Commercial Banks	62062	71052	71879	83%	NA	283534.00	553129.67	344841.49	NA	NA
Regional Rural Bank	393127	15484	13315	97.54%	NA	30845.00	47595.75	30652.89	NA	NA
Cooperative Banks	397357	77461	60445	93%	NA	71323.00	160594.00	90236.85	NA	NA
Others	2840	3290	97661	63.55%	NA	NA	176904.40	48346.89	NA	NA
All Agencies	855386	167287	243200	NA	NA	385702.00	938223.82	514078.12	NA	NA
3. LOANS & ADVANCES OUTSTANDING										
Agency	No. of accounts					Amount of Loan [Rs.lakh]				
	31-Mar-20	31-Mar-21	31-Mar-22	Growth(%)	Share(%)	31-Mar-20	31-	31-Mar-22	Growth(%)	Share(
Commercial Banks	3805	4305	94230	NA	NA	204110.00	2E+05	19975	36.9	62.57
Regional Rural Bank	310	330	8740	NA	NA	14450.00	15548	772	35.15	5.04
Cooperative Banks	28613	32819	85600	NA	NA	46250.00	48450	2419	13.08	21.34
Others	4224	4688	45563	NA	NA	NA	NA	6796	155.19	11.05
All Agencies	36952	42142	234133	NA	NA	264810.00	3E+05	29962	37.67	100
4. CD-RATIO				5. PERFORMANCE UNDER FIN. INCLUSION (No. of A/Cs)						
Agency	CD Ratio			Agency	Cumulative			Credit	Deposit	Credit
	31-Mar-20	31-Mar-21	31-Mar-22							
Commercial Banks	NA	82.18	62.05%	Commercial Banks	NA	NA	NA	NA	NA	NA
Regional Rural Bank	74.44	66.62	68.14%	Regional Rural Bank	NA	NA	NA	NA	NA	NA
Cooperative Banks	79.97	66.62	68.91%	Cooperative Banks	NA	NA	NA	NA	NA	NA
Others	NA	157.29	175%	Others	NA	NA	NA	NA	NA	NA
All Agencies	NA	83.5		All Agencies	NA	NA	NA	NA	NA	NA
6. PERFORMANCE TO FULFILL NATIONAL GOALS (As on 31/03/2022)										
Agency	Priority Sector Loans		Loans to Agr. Sector		Loans to Weaker Sections			Loans to Women		%
	Amount [Rs.lakh]	Ach'ement	Amount [Rs.lakh]	Ach'ement	Amount [Rs.lakh]	Ach'ement	Ach'ement%	Amount [Rs.lakh]	Total	
Commercial Banks	174141.91	110%	134386.67	99%	89663.04	97%	NA	NA	NA	NA
Regional Rural Bank	19620.82	88%	16295.75	88%	6998.36	84%	NA	NA	NA	NA
Cooperative Banks	58912.69	92%	56170.03	93%	28160.96	90%	NA	NA	NA	NA
Others	60141.35	112%	28770.55	102%	19030.68	104%	NA	NA	NA	NA
All Agencies	312816.77		235623.00		143853.04					
7. AGENCY-WISE PERFORMANCE UNDER ANNUAL CREDIT PLANS										
Agency	2019-20			2020-21			2021-22			Avg.
	Target	Ach'ment [Rs.]	Ach'ment [%]	Target [Rs.lakh]	Ach'ment [Rs.]	Ach'ment [%]	Target	Ach'ment [Rs.]	Ach'ment [%]	
Commercial Banks	148641	66522.2	172%	169674.38	115316.23	147.14	193257.98	149605.00	129.18	112
Regional Rural Bank	52427	84136.2	160%	18858.74	9566.92	197.12	34474.73	52804.00	65.29	79
Cooperative Banks	58999	73294	39%	59152.84	56309	105.05	8094.39	202409.00	0.00	106
Others	30099	103546.25	227%	18649.96	30971.89	60.22	72860.00	33005.90	220.75	333
All Agencies	290166	327498.65		266335.92	212164.04		308687.10	238395.10	129.49	114
8. SECTOR-WISE PERFORMANCE UNDER ANNUAL CREDIT PLANS										
Broad Sector	2019-20 (Aravalli)			2020-21 (Aravalli)			2021-22 (Aravalli)			Average
	Target	Ach'ment [Rs.]	Ach'ment [%]	Target [Rs.lakh]	Ach'ment [Rs.]	Ach'ment [%]	Target	Ach'ment [Rs.]	Ach'ment [%]	
Crop Loan	227112.00	111124.47	172%	98784.00	79420.00	124.38	169951.00	149605.00	113.60	125
Term Loan (Agr)	31647.30	29942.56	160%	135497.00	85929.00	157.68	98741.00	52804.00	187.00	92
Total Agri. Credit	258759.30	141067.03	39%	234281.00	174949.00	133.91	268692.00	202409.00	132.75	113
Non-Farm Sector	53882.00	209771.75	227%	16027.50	18025.00	88.92	14763.10	33005.90	44.73	91
Other Priority Sector	76821.00	171708.00	118%	16027.50	19190.04	83.52	25232.00	2980.20	846.65	146
Total Priority	67428.80	179215.01		266336.00	212164.04		308687.10	238395.10	129.49	112
9. RECOVERY POSITION (As on 30 June)										
Agency	2019-20			2020-21			2021-22			Average Rec. [%] in
	Demand [Rs. lakh]	Recovery [Rs. lakh]	Recovery [%]	Demand [Rs. lakh]	Recovery [Rs. lakh]	Recovery [%]	Demand [Rs. lakh]	Recovery [Rs. lakh]	Recovery [%]	
Commercial Banks	NA	NA	NA	1513700	NA	NA	NA	NA	NA	NA
Regional Rural Bank	1332709	1147957	86	207300	NA	NA	NA	NA	NA	NA
Cooperative Banks	12105843	1.2E+07	99	138900	NA	NA	NA	NA	NA	NA
Others				NA	NA	NA	NA	NA	NA	NA
All Agencies	13438552	1.3E+07	97	1859900	NA	NA	NA	NA	NA	NA
Sources : Lead Bank, DCCB,DGGB & SLBC										

## Methodology for Preparation of Potential Linked Credit Plans (PLPs)

Potential Linked Credit Plan is a comprehensive documentation of potentials in the district for rural economic activities, both in physical and financial terms. It is also an assessment of the gaps in infrastructure support which need to be filled in to fully exploit the realizable potentials.

### Objectives of PLP

The objectives of PLP are:

- To enable the various organizations involved in the process of rural development in directing their efforts in a planned manner, in accordance with the potentials available for exploitation.
- To enable optimum utilization of scarce financial resources (specifically bank credit) by channeling the same into sectors with growth potential.
- To assess the gaps in infrastructure support which need to be taken care for exploiting the potentials and prioritize resource requirement for the purpose.

### Methodology

NABARD, in 1988-89, took initiative of preparing PLPs for agriculture and rural development. The broad strategy followed by NABARD for the formulation of PLPs envisages estimation of long term potential (in terms of physical units) in each sector of agriculture and rural development with reference to the natural and human resource endowments and a phased annual programme for development, keeping in view the relative national and state priorities. NABARD has been constantly endeavoring to introduce refinements in the methodology of preparing PLPs and improvement of its contents so that the PLPs could be used as support reference document for Annual Credit Plans of banks. NABARD has been reviewing continuously the methodology in estimation of potential through consultative process over the year. It adopts a detailed methodology for assessing the physical potential in major sectors of investment activity conducive to development of agriculture and rural areas. The PLP writers – who are District Development Managers of NABARD placed in most of the districts of the country – are supported by a group of technical officers/experts in the Regional Offices and Head Office of NABARD.

The methodology consists of assessment of sector-wise/subsector-wise estimation of potential in consultation with technical officers of the concerned line departments at the district level, identification of infrastructure facilities required to support the exploitation of the potential, identification of infrastructure facilities available at present as well as planned and working out the gap in infrastructure, examination of the trends in sector-wise credit flow, various schemes of State/ Central Govt., and estimation of block-wise physical and financial credit potential.

The indicative unit costs suggested by the State level unit cost committee are made use of while arriving at the total financial outlays.

The broad methodology of arriving at the potential for major sectors is given below.

S. No.	Sector	Methodology of estimation of credit potential
1	Crop loans	<ul style="list-style-type: none"><li>• Collection of data on Gross Cropped Area for a period of 10 years and data on land holdings</li><li>• Distribution of Gross Cropped Area between Small Farmer/Marginal Farmers and Other Farmers based on the total land occupied by small and marginal farmers on one hand and other farmers on the other.</li><li>• Make assumption to cover 100% of Small/Marginal Farmers and 20% to 50% of Other Farmers;</li></ul>

S. No.	Sector	Methodology of estimation of credit potential
		<ul style="list-style-type: none"> <li>• Study the cropping pattern</li> <li>• Estimation of credit potential taking into account Scale of Finance and also the KCC guidelines in vogue</li> <li>• Block-wise allocation of potential taking into account credit absorption capacity in a particular block, cropping pattern, etc.</li> </ul>
2	Water Resources	<ul style="list-style-type: none"> <li>• MI potential is the area that can be brought under irrigation by ground and surface water;</li> <li>• Collection of data on ultimate irrigation potential, area already brought under irrigation and balance potential available under groundwater and surface water for the district</li> <li>• While fairly clear estimates are available for ground water and its present and future utilization, surface water estimates for individual districts are difficult to get;</li> <li>• Estimation of potential to be attempted block-wise based on categorization of blocks, type of rock formation, suitability of MI structures, projects planned by State Govt. etc.</li> <li>• Preference of farmers for different MI structures like dug wells, bore wells, DCBW, etc. is to be taken into account.</li> <li>• The potential for MI sector is defined in terms of numbers for DW, BW and TW, and in terms of an area for lift irrigation, sprinkler and drip systems.</li> </ul>
3	Farm Mechanization	<ul style="list-style-type: none"> <li>• The potential estimate for farm mechanization takes into account irrigated and unirrigated cropped area in the district, economic life of tractor, optimum use of tractor, per acre use of tractor, replacement of tractors per year, assessment of availability of draught animal power/power tiller by using conversion factors;</li> <li>• Calculation of requirement of number of tractors assuming one tractor per 30 acres and 45 acres of irrigated and unirrigated cropped area;</li> <li>• Adjustment of tractor potential with land holdings</li> <li>• Based on the cropping pattern, topography etc similar assessment is made for power tillers, combine Harvesters etc.</li> </ul>
4	Plantation and Horticulture	<ul style="list-style-type: none"> <li>• Estimation of additional area that could be brought under plantation crops based on trend analysis of the land utilization pattern and cropping pattern of the district, area of cultivable waste land likely to be treated and brought under plantation crops;</li> <li>• Feasibility and possibility of shifting from food crops to plantation crops;</li> <li>• Estimation of replanting by taking into account approximate economic life of a few plantation crops</li> <li>• Estimation of potential for rejuvenation of existing plantation</li> </ul>
5	Animal Husbandry – Dairy	<ul style="list-style-type: none"> <li>• Collection of data on number of milch animals as per the latest census</li> </ul>



S. No.	Sector	Methodology of estimation of credit potential
		<ul style="list-style-type: none"> <li>• Estimation of milch animals for the reference year by assuming 30% calving, 50:50 sex ratio, 40% calf mortality and 50% culling for buffaloes and 40% calving, 50:50 sex ratio, 20% calf mortality and 50% culling for CBCs and 30% calving, 50:50 sex ratio, 20% calf mortality and 50% culling for Indigenous cows;</li> <li>• 1/6<sup>th</sup> of the animals are assumed to be good quality animals and 60% of the good quality animals in milk and 60% of animals in milk are on 2<sup>nd</sup> and 3<sup>rd</sup> lactation. 50% of the number of animals so arrived are assumed to be animals available for bank finance.</li> </ul>

### Utility

Concerted and continuous efforts have been on to make PLPs user friendly keeping in view the stakeholders focus. The document has been useful to various stakeholders in a variety of ways, as illustrated below:

1	Bankers	<ul style="list-style-type: none"> <li>i. Provides inputs/information on Exploitable potential vis-a-vis credit available</li> <li>ii. Potential High Value Projects/Area Based schemes</li> <li>iii. Infrastructure support available which can form basis for their business/development plans.</li> </ul>
2	Government Agencies/ Departments	<ul style="list-style-type: none"> <li>i. Developmental infrastructure required to support credit flow for tapping the exploitable potential</li> <li>ii. Other support required to increase credit flow</li> <li>iii. Identification of sectors for Government sponsored programme</li> </ul>
3	Individual/ Business entities	<ul style="list-style-type: none"> <li>i. Private investment opportunities available in each sector</li> <li>ii. Commercial infrastructure</li> <li>iii. Information on various schemes of Govt &amp; Banks.</li> </ul>

### Limitations and constraints

Though concerted efforts are being made to estimate the potentials realistically, the following limitations and constraints are noticed in the exercise of PLP preparation:

- Non-Availability of accurate granular data on credit flow – Sector and sub-sector-wise;
- Non-availability of data required for estimation of potential in some sectors with the line Depts.

## Chapter 1

### Important Policies and Developments

#### 1.1 Policy Initiatives - Government of India

##### 1.1.1 Union Budget of India- 2022-23

##### Agriculture and Food Processing

- The year 2023 has been announced as the 'International Year of Millets'. Support will be provided for post-harvest value addition, enhancing domestic consumption, and for branding millet products nationally and internationally.
- To reduce the dependence on import of oilseeds, a rationalized and comprehensive scheme to increase domestic production of oilseeds will be implemented.
- For delivery of digital and hi-tech services to farmers with involvement of public sector research and extension institutions along with private agri-tech players and stakeholders of agri-value chain, a scheme in PPP mode will be launched.
- Chemical-free Natural Farming will be promoted throughout the country, with a focus on farmers' lands in 5-km wide corridors along river Ganga, at the first stage.
- Use of 'Kisan Drones' will be promoted for crop assessment, digitization of land records, spraying of insecticides, and nutrients.
- A fund with blended capital, raised under the co-investment model, will be facilitated through NABARD to finance startups for agriculture & rural enterprise, relevant for farm produce value chain. The activities for these startups will include, inter alia, support for FPOs, machinery for farmers on rental basis at farm level, and technology including IT-based support.
- Implementation of the Ken-Betwa Link Project with an estimated cost of Rs.44,605 crore to provide irrigation benefits to 9.08 lakh hectare of farmers' lands, drinking water supply for 62 lakh people, 103 MW of Hydro, and 27 MW of solar power will be taken up.

##### MSME

- Udyam, e-Shram, NCS, and ASEEM portals will be interlinked for credit facilitation, skilling, and recruitment with an aim to further formalize the economy and enhance entrepreneurial opportunities for all.
- Emergency Credit Line Guarantee Scheme (ECLGS) will be extended up to March 2023 and its guarantee cover will be expanded by Rs. 50,000 crore to total cover of Rs. 5 lakh crore, with the additional amount being earmarked exclusively for the hospitality and related enterprises.
- Credit Guarantee Trust for Micro and Small Enterprises (CGTMSE) scheme will be revamped with required infusion of funds. This will facilitate additional credit of Rs.2 lakh crore for Micro and Small Enterprises and expand employment opportunities.
- Raising and Accelerating MSME Performance (RAMP) programme with an outlay of Rs.6,000 crore over 5 years will be rolled out. This will help the MSME sector become more resilient, competitive and efficient.

##### Skill Development

- Digital Ecosystem for Skilling and Livelihood (DESH-Stack) e-portal will be launched to empower citizens to skill, reskill or upskill through on-line training.
- Startups will be promoted to facilitate 'Drone Shakti' through varied applications and for Drone-As-A-Service (DrAAS). In select ITIs, in all states, the required courses for skilling, will be started.

##### Inclusive Welfare Focus

- A new scheme, Prime Minister's Development Initiative for North-East (PM-DevINE), will be implemented through the North-Eastern Council to fund infrastructure, in the spirit of PM Gati Shakti, and social development projects based on felt needs of the North-East.
- Border villages with sparse population, limited connectivity and infrastructure will be covered

under the new Vibrant Villages Programme for construction of village infrastructure, housing, tourist centres, road connectivity, provisioning of decentralized renewable energy, direct to home access for Doordarshan and educational channels, and support for livelihood generation, etc.

- To mark 75 years of our independence, it is proposed to set up 75 Digital Banking Units (DBUs) in 75 districts of the country by Scheduled Commercial Banks.

### **Productivity enhancement and Investment**

- Launching of Ease of Doing Business 2.0 and Ease of Living
- Expanding scope of Green Clearance portal PARIVESH
- Unique Land Parcel Identification Number for IT based management of land records

### **Sunrise opportunities and climate action**

- Introducing Supportive policies, light-touch regulations, facilitative actions to build domestic capacities, and promotion of research & development in the field of Sunrise sector such as Artificial Intelligence, Geospatial Systems and Drones, Semiconductor and its eco-system, Space Economy, Genomics and Pharmaceuticals, Green Energy, and Clean Mobility Systems Opportunities, Energy Transition, and Climate Action, etc.
- Prioritizing transition to Carbon Neutral Economy, augmenting solar power generation to be given utmost importance.

### **Financing Public Investment**

- Issue of sovereign Green Bonds for mobilizing resources for green infrastructure
- Promotion of thematic funds for blended finance for encouraging important sunrise sectors such as Climate Action, Deep-Tech, Digital Economy, Pharma and Agri-Tech, enhancing financial viability of projects including PPP, with technical and knowledge assistance from multi-lateral agencies.
- Introduction of Digital Rupee by RBI starting 2022-23.

### **1.1.2 Strengthening of Cooperative Sector**

A cooperative is defined as ‘an autonomous association of persons united voluntarily to meet their common social, economic and cultural needs as well as their aspirations through a jointly owned and democratically controlled enterprise’.

A cooperative is governed by seven major principles, i.e. voluntary and open membership; principle of democratic member control; principle of member economic participation; principle of autonomy and independence; principle of education, training and information; principle of cooperation and, principle of concern for community.

Cooperative enterprises help their members to collectively solve shared socio-economic problems. They strengthen bargaining powers of their members, help them get access to competitive markets and to capitalise on new market opportunities. As such, they improve income opportunities, reduce costs and manage risks of the members.

Sector-wise/ Activity-wise distribution Co-operatives is given in the Table.

<b>Sr. No</b>	<b>Type</b>	<b>Number of Societies</b>
<b>A</b>	<b>Non Credit Cooperative Societies</b>	
1	AH Sector (Milk/Fishery/ Poultry etc.)	185660
2	Consumer Stores	25207
3	Housing Societies	134798
4	Weavers	11521
5	Marketing	8875
6	Labour Societies	46692
7	Industrial Societies	19385
8	Agro Processing and Sugar	5872
9	All others	301572

Sr. No	Type	Number of Societies
	<b>Total</b>	<b>739582</b>
<b>B</b>	<b>Credit Cooperative Societies</b>	
10	Primary Agriculture Credit Societies	93978
<b>C</b>	<b>Multi State Cooperative Societies (MSCs)</b>	
11	MSCs	1469

Source: NCUI 2018

In addition, there are about 2,705 District Level Federations, 390 State Level Federations and 20 National Level Federations in the country.

Govt. of India has set up a separate Ministry for Cooperation on 06 July 2021, which will provide a separate administrative legal and policy framework for strengthening the cooperative movement in the country, to help deepen the presence of cooperatives, to streamline processes for 'Ease of doing business' for co-operatives and enable development of Multi-State Co-operatives (MSCS). In the words of the Hon'ble Prime Minister, "The Cooperative movement is such a model which can provide a successful alternative to socialism and capitalism"

In this direction, the Ministry of Cooperation (MoC) has, in consultation, coordination and partnership with State Governments, NABARD, National Level Federations, Training Establishments at State and National level and other stakeholders, initiated work on five major fronts:

- a. Cooperative Credit Guarantee Fund:** This is a new scheme being created for providing credit guarantee on loans of Primary Agriculture Cooperative Societies and other primary cooperative societies.
- b. Co-operative Education:** This scheme aims at introduction of cooperative education as a course curriculum and also as independent degree / diploma courses in Schools and Universities. This will also take care of research in the field of cooperation.
- c. Cooperative Training:** This scheme aims at revamping strengthening existing cooperative training structure in the country and modernize the training methods through a revamped scheme.
- d. Computerization of Primary Agriculture Cooperative Societies:** This scheme aims at computerization of 63,000 functional PACS leading to increase in efficiency, profitability, transparency and accountability in the working of PACS
- e. Sahkar se Samridhhi:** This scheme is an umbrella scheme with a number of sub-components as mentioned below with the aim of all round development of cooperatives in the country by providing them necessary support in terms of finance, technology and infrastructure and transform them into successful economic entities: (a) Recapitalization of PACS; (b) Seed money for new PACS; (c) Revival of defunct PACS; (d) Transformation of PACS into multi-role cooperatives on the lines of FPOs; (e) Assistance to cooperative societies in branding, marketing and trade; (f) Capital subsidy for creation of basic infrastructure.

All these initiatives will create immense business potential for the Cooperatives from grassroots upward in times to come.

### 1.1.3 Enhancing Credit Flow: Credit Guarantee Schemes

Credit Guarantees are risk sharing instruments for lenders and are aimed to improve flow of credit in borrowers' segment which are normally perceived to be risky by lenders. For the promotion of Agriculture and Allied Sector, GoI has announced two Credit Guarantee Schemes which are being managed by NABSanrakshan Trustee Private Limited, a wholly owned subsidiary of NABARD.

Item	Credit Guarantee Scheme for FPOs	Credit Guarantee Scheme for Animal Husbandry and Dairying
Guarantee Cover	85% of the sanctioned amount max. ₹1.5 cr	25% of the Credit Facility
Annual Guarantee Fee	Upto 0.85% of sanctioned amount	1.0% of the sanctioned amount
Eligible Lending Institutions	Scheduled Commercial Banks, Co-operative Banks NEDFI, NABKISAN, etc.	Scheduled Banks
Eligible Borrower	FPOs (Agri based)	FPO, Pvt Company, Sec. 8 Company, Individual Entrepreneur, MSME, etc.

## 1.2 Policy Initiatives – Reserve Bank of India

The following important initiatives have been taken by the RBI in Agriculture and Rural Sector:

- i. Master circular on Lead Bank Scheme consolidating the relevant guidelines/ instructions issued by Reserve Bank of India on Lead Bank Scheme up to March 31, 2022, was issued vide circular FIDD.CO.LBS.BC.No.02/02.01.001/2022-23 dated 01 April 2022. It reemphasizes the focus of the Lead Bank scheme to inclusive growth and financial inclusion.
- ii. Master circular on SHG- Bank Linkage Programme consolidating the relevant guidelines/ instructions issued by Reserve Bank of India up to March 31, 2022, was issued vide circular FIDD.CO.FID.BC.No.1/12.01.033/2022-23 dated 01 April 2022. As per the circular, utmost priority should be given by banks in lending to SHGs and the same should also form an integral part of the bank's corporate credit plan.
- iii. **Kisan Credit Card Scheme - Eligibility criteria for farmers engaged in fisheries/ aquaculture**  
RBI has issued modified instructions to all Commercial Banks including Small Finance Banks and excluding Regional Rural Banks, with regard to the eligibility criteria for inland fisheries and aquaculture. As per the modified instructions, the beneficiaries must own or lease any fisheries related assets such as ponds, tanks, open water bodies, raceways, hatcheries, rearing units, boats, nets and such other fishing gear as the case may be and possess necessary authorisation/certification as may be applicable in respective states for fish farming and fishing related activities and for any other state specific fisheries and allied activities. The detailed instructions were issued by RBI vide circular FIDD.CO.FSD.BC.No.6/05.05.010/2022-23 dated 18 May 2022.
- iv. **Lending by Commercial Banks to NBFCs and Small Finance Banks (SFBs) to NBFC-MFIs, for the purpose of on-lending to priority sector**  
To ensure continuation of the synergies that have been developed between banks and NBFCs in delivering credit to the specified priority sector, RBI issued instructions to all Scheduled Commercial Banks including Small Finance Banks that Bank credit to NBFCs (including HFCs) for on-lending will be allowed up to an overall limit of 5 percent of an individual bank's total priority sector lending in case of commercial banks. In case of SFBs, credit to NBFC-MFIs and other MFIs (Societies, Trusts, etc.) which are members of RBI recognized 'Self-Regulatory Organisation' of the sector, will be allowed up to an overall limit of 10 percent of an individual bank's total priority sector lending. These limits shall

be computed by averaging across four quarters of the financial year, to determine adherence to the prescribed cap.

SFBs are allowed to lend to registered NBFC-MFIs and other MFIs which have a 'gross loan portfolio' (GLP) of up to Rs.500 crore as on March 31 of the previous financial year, for the purpose of on-lending to priority sector. In case the GLP of the NBFC-MFIs/other MFIs exceeds the stipulated limit at a later date, all priority sector loans created prior to exceeding the GLP limit will continue to be classified by the SFBs as PSL till repayment/maturity, whichever is earlier. The detailed instructions were issued by RBI vide circular FIDD.CO.Plan.BC.No.5/04.09.01/2022-23 dated 13 May 2022.

v. **Modified Interest Subvention Scheme for Short Term Loans for Agriculture and Allied Activities availed through Kisan Credit Card (KCC) during the financial year 2021-22**

Modified instructions on Interest Subvention Scheme for Short Term Loans for Agriculture and Allied Activities availed through Kisan Credit Card (KCC) during the financial year 2021-22 were issued by RBI to all Public Sector Banks, Private Sector banks and Small Finance Banks to extend the benefit of Interest Subvention vide circular FIDD.CO.FSD.BC.No.3/05.02.001/2022-23 dated 28 April 2022. As per the scheme, banks to submit their additional claim pertaining to the disbursement made during the year 2021-22 which is (i) not included in the claim as on 31 March 2022; and (ii) repaid promptly during 2022-23, latest by 30 June 2023.

### **1.3 Policy Initiatives – NABARD**

#### **1.3.1 Long-Term Refinance**

To ensure increased and uninterrupted credit flow to farmers, as also to give a boost to capital formation in agriculture sector, NABARD provides refinance to the cooperative banks and RRBs out of Long Term Rural Credit Fund, at a reasonable rate of interest. An amount of Rs.1,20,000.00 crore was allocated for the year 2021-22.

#### **1.3.2 Short-Term Refinance**

NABARD provides Short Term refinance to Cooperatives & RRBs for their crop loan lending. The allocation for the year 2021-22 was Rs.1,20,727.66 crore.

#### **1.3.3 Other Initiatives**

(i) Special Refinance scheme for financing under Agriculture Infrastructure Fund (AIF) for RRBs, Cooperative Banks and subsidiaries of NABARD with a view to address the existing infrastructure gaps and to provide a fillip to the rural financial institutions for funding projects of other than PACS under AIF and also funding to eligible beneficiaries being covered under AIF. The scheme envisages investment in viable projects relating to post harvest management infrastructure and community farming assets.

#### **(ii) Special Liquidity Facility-2**

NABARD, under Atmanirbhar Bharat Abhiyan, disbursed Rs. 24,399.43 crore to Cooperative Banks, RRBs, SCARDBs, and NBFC-MFIs as special liquidity facility (SLF-2) during the pandemic. Out of which, Rs.15053.30 crore was disbursed to Cooperative Banks, Rs. 7746.13 crore to RRBs for the purpose of ASAO and ST-Others and Rs. 1600 crore to SCARDBs &NBFCs/NBFC-MFIs. Under Additional Special Liquidity Facility (ASLF) an amount of Rs. 150.00 crore was disbursed during the year 2021-22 to NBFCs/NBFC-MFIs with asset size of less than Rs.500.00 crore.

(iii) To improve the flow of credit to priority sector by banks 25% of the corpus of the STRRB Fund and LTRCF, allocated for the RRBs in the credit starved districts.

(iv) Extension of both the Short Term and Long Term refinance to all RRBs, based on internal Risk Rating category of NABARD viz. NBD1 to NBD7.

(v) NABARD has devised a new scheme for providing repayable financial assistance to State Governments for share capital contribution to RRBs under Section 38 read with section 39 of the NABARD Act, 1981 to facilitate release of proportionate share of the State Govt. to RRBs and to ensure uninterrupted credit flow to rural sector.

(vi) Keeping in view the requirements of Cooperatives and RRBs under Short Term Refinance Scheme under ST(SAO) and ST(Others), NABARD has issued guidelines for the State Cooperatives and RRBs, wherein the banks have the option of choosing between fixed and floating rates for short term refinance sanction availed under ST(SAO) and ST(Others) limits.

### **1.3.4 Government Sponsored Programmes with Bank Credit**

- Department of Food and Public Distribution (DFPD), Government of India has notified the "Scheme for extending financial assistance to project proponents for enhancement of their ethanol distillation capacity or to set up distilleries for producing 1st Generation (1G) ethanol from feed stocks such as cereals (rice, wheat, barley, corn & sorghum), sugarcane, sugar beet, etc." NABARD has been appointed as the Nodal Bank for interacting with DFPD and managing interest subvention under the Scheme. The operational guidelines have been issued to Cooperative Banks, RRBs, NCDC, PSBs, Commercial Banks, etc. for implementation of the scheme.
- Administrative approval conveying continuation of the following subsidy schemes for 2021-2022 (till 30 September 2022) has been received from the GoI :
  - Agri Clinics and Agri Business Centres (ACABC)
  - Agri Marketing Infrastructure (AMI) sub scheme of Integrated Scheme for Agricultural Marketing (ISAM)

### **1.3.5 Rural Infrastructure Development Fund (RIDF)**

- The corpus under Rural Infrastructure Development Fund (RIDF) was Rs. 40,000 crores during FY 2021-22.
- During 2021-22, the total sanctions were to the tune of Rs. 46,072.70 crore and disbursements were to the extent of Rs. 33,883.18 crore to various State/UTs.
- Based on the requests received from State Governments, two new activities viz. Road Over Bridges on railway crossings and Ropeway were added in the list of eligible activities under RIDF.

### **Other Important Funds**

#### **i) Long Term Irrigation Fund (LTIF)**

Under LTIF, NABARD has sanctioned a loan amount to the tune of Rs.800.78 crore and Rs.3196.97 crore was released during 2021-22. As on 31 March 2022, the cumulative loan sanctioned and disbursed under LTIF stood at Rs.85, 127.38 crore and Rs.55, 676.68 crore, respectively.

#### **ii) Micro irrigation Fund (MIF)**

Under MIF, an amount of Rs.256.25 crore was released during 2021-22. As on 31 March 2022, the cumulative loan sanctioned and released stood at Rs. 3970.17 crore and Rs.2083.72 crore, respectively. The sanctions made by NABARD till date under MIF envisages expansion of micro irrigation coverage by an area of 12.83 lakh Ha. Total area of 4.23 lakh Ha has been covered by the States up to 31 March 2021. (Source: MoA&FW, GoI)

#### **iii) Pradhan Mantri Awas Yojana-Grameen (PMAY-G)**

As on 31 March 2022, the cumulative loan sanctioned and released under PMAY-G stood at Rs.61,975.00 crore and Rs.48,819.03 crore, respectively. This has facilitated construction of 1.77 crore houses as on 31 March 2022 (Source-MoRD, GoI website).

### **1.3.6 Micro Credit Intervention**

#### **1. Committee to review the SHG-BLP grading norms for credit linkage**

In order to bring about uniformity in SHG grading norms, a Committee was set up to review the existing sets of SHG grading norms for credit linkage and suggest revised norms for fresh credit linkage and repeat linkage of SHGs. The Committee recommended (a) adoption of NRLM norms universally for SHGs; (b) review of grading norms after six months of operation of the National Loan Portal for inclusion of additional parameters by NRLM; (c) RBI to review their guidelines on credit reporting to Credit Information Companies (CICs); (d) development of common technology platform for the banks for collection of the SHG member level data to ensure uniformity; and (e) use of Central KYC Registry for capturing the KYC details of members of SHGs for reporting to CICs.

## **2. Enhancement of collateral free loans to Self Help Groups (SHGs) under DAY-NRLM from Rs.10 lakh to Rs.20 lakh**

Credit Guarantee Fund for Micro Units (CGFMU) is the Trust Fund set up by Government of India, managed by NCGTC as a Trustee, with the purpose of guaranteeing payment against default in Micro Loans extended to eligible borrowers by Banks/ NBFCs/ MFIs/ Other Financial Intermediaries. Consequent to the amendment in the CGFMU scheme, the collateral free loans to SHGs under DAY-NRLM were enhanced from Rs. 10 lakh to Rs.20 lakh and categorised as under.

- i. Loans up to Rs. 10 lakh -No collateral and no margin to be charged
- ii. Loans above Rs. 10 lakh and up to Rs. 20 lakh - No collateral and no lien to be marked against savings bank accounts of SHGs.

However, the entire loan (irrespective of the loan outstanding, even if it subsequently goes below Rs. 10 lakh) would be eligible for coverage under Credit Guarantee Fund for Micro Units (CGFMU).

### **1.3.7 Financial Inclusion**

- **Positive Pay System:** In order to enhance the safety of cheque based transactions of Rs.50,000/- and above, the new scheme with maximum support of Rs. 5.00 lakh for implementation of Positive Pay System (PPS) by Rural Cooperative Banks (RCBs) has been introduced under FIF in September 2021. This enables an additional security layer to the cheque clearing process. As on 31 March 2022, out of 384 banks, more than 100 banks have already availed sanction under FIF for the scheme and during the year 2021-22 an amount of Rs.520.71 lakh has been sanctioned and Rs.241.03 lakh is disbursed under the scheme.
- A scheme under FIF for implementation of Green PIN facility at ATMs and/or micro ATMs for RuPay Kisan Card activation was launched under which maximum Rs.4.00 lakh one-time implementation and application development cost for enabling Green PIN facility is reimbursed. In order to bring digital financial literacy in the remote areas and to give further thrust to effective financial inclusion, the scheme for providing support for mobile vans was modified to support a maximum of five demo vans per district on a select basis. This has greatly helped in delivering banking services during the pandemic.
- Scaling up of the Centre for Financial Literacy (CFL) Project was launched in 2021-22. The pilot project of RBI being implemented in 80 blocks of the country is now up scaled to 200 CFLs. The scaled up project envisages that one CFL will cater to 3 blocks.
- A scheme under FIF for supporting onboarding to Bharat Bill Payment System (BBPS) is granted to encourage banks to provide facility of online utility payment services to their customers to enable rural customers to experience the benefits of online bill payments. Maximum Rs.2.00 lakh one time integration cost of the Bank with the Bharat Bill Payment Operating Unit (BBPOU) is reimbursed under the scheme.
- Support extended to RCBs in addition to CBs and RRBs for opening Kiosk outlets in unbanked villages of North Eastern States in order to augment the banking outlets through BCs for providing comprehensive financial services in unbanked villages with population less than 500.



### **1.3.8 Farm Sector Development – Important Initiatives**

#### **I. Sustainable livelihood & NRM- Watershed and Tribal development Project**

- JIVA: An agro ecological transformation programme, aimed at achieving long-term sustainability of interventions made in the completed NRM projects and promotion of sustainable farming was launched.
- Indo-German Technical Cooperation Project on Capacity enhancement for Sustainable Agriculture and Sustainable Aquaculture (C-SASA) was signed during the FY 2021-22.
- Nationwide exercise of Geo tagging of Wadis was initiated.

#### **II. FPO Promotion**

- NABARD, in collaboration with GiZ, developed a mobile application for conduct of baseline survey of FPOs and an automated rating tool for FPOs (FPO Manak tool).
- BIRD, Lucknow as the Nodal Training Institute for Central Sector Scheme of 10,000 FPOs developed five Basic training modules and eight advanced training modules for FPOs and other stakeholders.
- 417 FPOs were promoted under Central Sector Scheme on 10,000 FPOs during 2021-22. With this, the Cumulative number of FPOs promoted is 1096, of which 774 are registered.

#### **III. IOT and ICT Interventions**

- Deployment of IOT systems in the watershed for delivering advisories on improved agricultural practices (Himachal Pradesh).
- End-to-End ICT and IOT based solutions for farmers (Gujarat & Jharkhand)
- IOT based Soil & Weather Stations through Farmers Producer Company (Tamil Nadu).
- Application of IOT and Machine Learning for cultivation of Chillies (Telangana).
- Development of drone-based package of practices in direct seeded rice (Telangana) and demonstration of spraying pesticides and foliar application of nutrients using Drone (Tamil Nadu).
- Implementation of IOT in vegetable cultivation (Uttar Pradesh).
- Pilot project on encouraging rural youth in agriculture for agri-entrepreneurship development sanctioned in Rajasthan and Jharkhand.
- Agriculture Export Facilitation Centre (AEFC) to function as a 'One Stop Centre' for agri export services and capacity building of farmers in traceability, Good Agriculture Practices, etc. in Maharashtra (various export commodities) and Rajasthan (spices) was set up.

#### **IV. Climate Action**

Under climate change initiatives, NABARD has released an amount of Rs.97.30 crore under various funding mechanisms viz. Adaptation Fund (AF), Green Climate Fund (GCF) and National Adaptation Fund for Climate Change (NAFCC).

#### **1.3.9 Off Farm Sector Initiatives**

- A total of 58 OFPOs, covering around 18,000 beneficiaries have been supported with grant assistance of ₹28.93 crore across 24 states. Of these, 45 OFPOs have been registered under Companies Act while 5 have been registered under the Societies Act and are undertaking business activities of aggregation, marketing and input distribution. Of the 58 OFPOs, 16 OFPOs are all-women OFPOs and are expected to empower 10,000 women weavers and artisans directly.
- Relaxations in norms for skill training providers in the NER, LWE affected states and islands.
- NABARD is the Connect Centre for Stand Up India Scheme for organizing pre and post disbursement handholding events at district level, to share best practices, review the programme, problem solving and guiding the potential borrowers.

- New scheme to support off-farm sector development projects in DPR Mode has been formulated to provide more flexibility to development project partners in designing and implementing projects cater to the vast off-farm sector development landscape that is differentiated by region, material, product, artisan, and a whole host of other factors.
- A scheme to extend assistance for formation and nurturing of mini-OFPOs comprising of less than 200 members was introduced to achieve wider regional spread particularly in North Eastern states, hilly and difficult areas, bring in sustainable development for the unreached and excluded sections, help reduce distress migration of artisans, increase incomes of the artisans, provide a market for products, help revive dying arts, crafts and weaves etc.
- 'Stall in Mall' scheme has been introduced to provide support for hiring and/ or setting up of temporary stalls for a period of between one to three months in a year in reputed malls, stores, market complexes, reputed hotels, and prominent premises (Govt. or private), places with good footfall.

### **1.3.10 Agriculture Credit Target during 2022-23**

For the FY 2021-22, the ground level agricultural credit achievement was Rs.17.10 lakh crore, as against the target of Rs 16.50 lakh crore.

Agriculture credit target for the year 2022-23 has been fixed at Rs.18.50 lakh crore. In order to provide special focus to allied activities, separate sub targets of Rs. 37,800 crore for working capital and Rs. 88,200 crore for term loan towards allied activities under GLC targets have been fixed.

## **1.4 Policy Initiatives – State Government**

The Gross State Domestic Product (GSDP) of Gujarat for 2022-23 (at current prices) is projected to be Rs 22,03,062 crore expecting a growth of 13.3% over the revised estimate of GSDP for 2021-22 (Rs 19,44,107 crore).

### **1.4.1 Budget Initiatives**

State Government has presented a budget of Rs.2,18,408 crore for the year 2022-23. The overall surplus as per budget estimates for the year 2022-23 is Rs. 1,006 crore. The government has declared that there may be no increase in the existing tax rates and it would not impose any new taxes. The budget allotted to the education sector at ₹34,884 crores is highest amongst all sectors.

Major highlights of the budget are:

### **Agriculture, Farmers' Welfare and Cooperation Department**

- A. Total provision of Rs.7737 crore has been earmarked for various activities of Agriculture, farmers' welfare and Cooperation Department. Some components of the allocation are as under-
- i. To clear out the pending applications for agricultural power connection, a subsidy of ₹8300 crore is provided in the budget. This will expedite the access of subsidized power connection to farmers
  - ii. A provision of ₹260 crore has been made to provide subvention in purchasing tractors and various farm machineries for mechanization of agriculture activities/ agriculture operations.
  - iii. Provision of ₹231 crore for various projects related to agriculture and allied sectors under Rashtriya Krishi Vikas Yojana.
  - iv. A provision of ₹213 crore for maintenance of cows for the farmers who are engaged in organic farming with dependence entirely on cows rearing.
  - v. A provision of ₹142 crore for constructing small godowns at farms under Mukhymantri Pak Sangrah Yojana.
  - vi. Gujarat Prakrutik Krushi Vikas Board has been formed to provide a boost to organic farming. The board will work towards enhancing agricultural production by

integrating farmers with this campaign. A provision of ₹100 crore has been made exclusively for this purpose.

- vii. A provision of ₹100 crore to provide subvention to Agro and Food Processing Units under Sarvagrahi Krishi Vyavasay Niti.
- viii. A provision of ₹81 crore under Khedut Khatedar Akasmat Bima Yojana for crop insurance in the State covering crop failure due to emergent reasons.
- ix. A provision of ₹54 crore to provide one drum and two plastic baskets free of cost to farmers of the state to carry out multipurpose activities.
- x. A provision of ₹35 crore for increasing agricultural production by application of fertilizers and insecticides with the help of drone and thereby decreasing the cost of agricultural inputs.
- xi. A provision of ₹32 crore to encourage farmers engaged in organic farming in the Dangs district, for entirely chemical free cultivation.
- xii. A provision of ₹20 crore for erecting solar power fencing around farms to prevent the crop being damaged by wild animals.
- xiii. A provision of ₹17 crore for storage of fertilizers in order to ensure timely supply of fertilizer to the farmers in adequate quantity.
- xiv. A provision of ₹15 crore to provide subvention on the purchase of goods carrying vehicles for transportation of agricultural products.
- xv. A provision of ₹10 crore to promote "Sanedo", an agricultural implement, developed by local manufacturers of the State.

B. For the development of Horticulture, total provision of ₹369 crore was made under various schemes of the Directorate of Horticulture as below.

- i. A provision of ₹10 crore to increase the area under cultivation of Kamalam (dragon fruit).
- ii. A provision of ₹10 crore to engage 10,000 farmers of the state in honey production to provide a boost to the Honey Revolution.
- iii. A provision of ₹7 crore under Comprehensive Horticulture Development Program.
- iv. A provision of ₹7 crore to establish 3 centers of excellence for horticulture crops, one each at Ahmedabad, Jamnagar and Kheda districts.

Apart from this, a provision of ₹757 crore has also been made to intensify Agricultural Research and Education Programmes under Agricultural Universities.

C. For activities related to the Animal Husbandry division, the following provisions have been made:

- i. A provision of ₹500 crore to Gaushala, Panjrapole and Trust managed institutions for preservation of cow and infrastructural facilities in Mukhyamantri Gaumata Poshan Yojana.
- ii. A provision of ₹300 crore for interest relief to Animal keepers on short term loan.
- iii. A provision of ₹80 crore to provide subvention for setting up dairy farm and animal unit at rural level for self-employment.
- iv. A provision of ₹44 crore to provide benefit of cattle feed through 'Pashu Khandan Sahay Yojana' to animal keepers during pre and post deliveries of their animals.
- v. A provision of ₹12 crore for construction of milk house/godowns for rural milk producing cooperative societies.

D. Total provision of ₹880 crore is provided in the budget for following major activities of Fisheries Division.

- i. A provision of ₹264 crore for maintenance of the existing ports, strengthening the infrastructural facilities and to provide facility of floating jetty at Chorwad and Umarsadi.
- ii. A provision of ₹230 crore for the scheme to exempt VAT on high speed diesel oil for the fishermen.
- iii. A provision of ₹201 crore to construct 5 new all-weather fishing ports at Nava Bandar, Veraval, Madhvad, Porbandar and Sutrapada.

- iv. A provision of ₹75 crore to provide interest relief on short term loans to fishermen.
- v. A provision of ₹40 crore to provide modern equipment to fishermen and thereby increase their security and productivity.
- vi. A provision of ₹30 crore for Pradhanmantri Matsya Sampada Yojana.
- vii. A provision of ₹25 crore to provide subvention for equipment to the beneficiaries engaged in inland fisheries.
- viii. A provision of ₹5 crore for various schemes for providing infrastructural facilities to prawn fishing farms for development of brackish water fisheries.

E. Co-operative Sector: There is an increased budgetary allocation in this sector with following major details:

- i. A provision of ₹1250 crore for this scheme to provide interest relief to farmers for Kharif and Rabi crops.
- ii. A provision of ₹50 crore for the management and strengthening of Agricultural Marketing System.
- iii. A provision of ₹13 crore for interest relief on short and long term credit to Sugar Cooperative Societies.
- iv. A provision of ₹10 crore for reviving of Co-operative sugar mills.
- v. A provision of ₹2 crore to provide trollies to porters in agriculture produce marketing committees for transporting goods.

F. **Water Resource:** Total provision of ₹5,339 crore is made under the budget for different activities of Water Resources sector with following details :

- i. With majority works of **Sardar Sarovar Project** - the lifeline of the state - completed, the entire state has been bestowed with water security cover with irrigation facility of 69 lakh ha. of land in the State. Construction of Sardar Sarovar Dam has been completed in the year 2017. Keeping in view the principle of "Per Drop More Crop", State Government is making efforts to use water resources effectively. Provision of ₹6090 crore has been made for the **Narmada Project**. The water stored in Sardar Sarovar reservoir is used for irrigation, generating hydraulic power, drinking and industrial purposes. It has been planned to complete the works of Kutch branch canal and its ancillary network to take Narmada water to Mandvi taluka. Besides, special planning has been made for strengthening the existing canals of Narmada Project in north Gujarat and complete the missing link in Saurashtra.
- ii. **Micro Irrigation** : By taking an initiative in micro irrigation, Gujarat has made remarkable progress. In the last two decades, 13 lakh farmers have been benefitted by putting in place micro irrigation in approximately 21 lakh ha. area. A provision of ₹500 crore for expanding the scope of this scheme in further 1 lakh ha. in the next year.
- iii. **Bhadbhut Barrage project** : Work has started for the ambitious Bhadbhut Barrage to construct a sweet water reservoir on river Narmada at a cost of ₹5322 crore and a provision of ₹1240 crore has been made for this scheme.

G. **Social Justice and Empowerment**

- i. A provision of ₹75 crores to provide assistance for individual/community irrigation wells with 3 HP solar pumps to tribal farmers.
- i. A provision of ₹38 crores under the new scheme of assistance to farmers in tribal areas to use power tillers for cultivation.
- ii. A provision of ₹27 crores for tribal beneficiaries under integrated dairy development scheme in tribal areas.
- iii. A provision of ₹30 crores for tribal beneficiaries under the scheme of agricultural diversification for tribal beneficiaries.
- iv. A provision of ₹3 crores for marketing support to tribal beneficiaries for their production cum sale.

- v. A provision of ₹3 crores for assistance in construction of milk societies in tribal districts.

#### **H. Panchayat, Rural Housing & Rural Development**

- i. Provision of Rs.9048 crores for Panchayat, Rural Housing & Rural Development
- ii. As per 15<sup>th</sup> Finance Commission recommendations, Panchayats would get Rs. 15650 crore for development of Infrastructure facilities. Of this, provision of Rs. 2446 crore is made for next year.
- iii. The Mukhyamantri Gram Asmita Yojana is being implemented for improving the living standard of the village people by developing infrastructural facilities in Gram Panchayats.
- iv. Provision of Rs. 35 crore for strengthening e- Gram Centers to provide approximately 200 services.

#### **I. Rural Development**

- i. Provision of Rs. 933 crore for constructing 4 lakh new houses in the next two years under Pradhanmantri Awas Yojana (Gramin) to achieve the goal of “a house for all” by 2024.
- ii. Provision of Rs.900 crore under Mahatma Gandhi Rashtriya Gramin Rojgar Yojana
- iii. Provision of Rs. 500 crore to create anganwadi, classrooms, mid-day meal sheds, forest nursery, community wells, cattle sheds through Mahatma Gandhi Rashtriya Gramin Rojgar Yojana.
- iv. Provision of Rs. 467 crore for improving cleanliness standards at the rural level under Swachhh Bharat Mission (Gramin).
- v. Provision of Rs. 231 crore for economic development and women empowerment under National Rural Livelihood Mission (Aajivika).
- vi. Provision of Rs. 91 crore to promote basic services for economic upliftment at rural level under Shyama Prasad Mukherjee Urban Mission.
- vii. Provision of Rs. 38 crore for providing bathroom facility in newly approved houses under Pradhanmantri Awas Yojana (Gramin).
- viii. Provision of Rs. 18 crore to provide interest relief to ensure that women Self-Help Groups can avail interest free loans.

##### **1.4.2. Status of Cooperatives in Gujarat**

‘Cooperative’ values such as member-owned democratic control, member-welfare and member economic participation should be inscribed in the process of technological & managerial modernization of the Cooperative institutions- to meet the contemporary realities of rural aspirations. This way, Cooperatives can re-assert their relevance in niche arenas as well such as frugal innovations, ‘common’ ownership of assets and climate change finances also- apart from pre-requisites of attaining business viability and financial health.

The socio-economic landscape in rural areas is increasingly uncertain due to concerns of climate change & food security and technological breakthroughs in banking, new concepts of collaborative consumption etc. The rural community needs a bulwark to withstand shocks while also getting the right platform for actively participating in co-creation of value through steering frugal innovations and catalysing rural entrepreneurship. Cooperative Credit Institutions –be it Rural Cooperative Banks or grass-root institutions such as PACS- hold the promise for strengthening and rejuvenating rural economy in such a rapidly changing landscape: provided they are strengthened and given the opportunity to participate actively in the rural ecosystem.

Cooperative sector in Gujarat is reasonably well developed and sound, as evidenced in the well-developed Dairy sector and a strong system of Rural Cooperative Banks.

1. The operational efficiency and turnover of the Cooperative Dairy sector in Gujarat is well above the national average, anchored by systematic procurement system, efficient payment cycle, robust infrastructure and trained manpower with a cooperative spirit. As regards the Rural Cooperative Banks of Gujarat, it is a 3-tier structure, consisting of Gujarat State Cooperative Bank, 18 DCCBs and over 7700 PACS. All 18 DCCBs are in profit and on CBS

(Core Banking Solution) Platform. 13 DCCBs are offering Mobile Banking facility and all 18 DCCBs are offering RTGS/NEFT facility to their customers. However, there is considerable variation among the DCCBs as regards to their financial resources and business performance. Likewise, out of over 7700 PACS, there are some PACS, which are not profit-making/viable and lack adequate infrastructure or trained man-power to undertake business activities adequately and to play effective role in rural economy.

2. At macro-level, a strong Rural Cooperative Sector will reflect in a rise in percentage share of GLC Flow of DCCBs (relative to other banks) and an increase in Agri-Term loan disbursements in various districts. This has however, become a challenge, particularly with the influx of Small Financial Banks & NBFCs that are foraying into the domain of Rural Cooperative Banks (RCBs). For RCBs to reclaim their prominence in rural credit landscape, it is crucial that PACS play a more decisive role in rural economy through business diversification, thus generating greater demand for credit.

#### 1.4.3 Sector-wise/ Activity-wise distribution Co-operatives-

Sr. No	Type	Number of Societies
<b>A</b>	<b>Details of Non Credit Cooperative Societies*</b>	
1	AH Sector (Milk/Fishery/ Poultry etc.)	17461
2	Consumer Stores	2026
3	Housing Societies	17642
4	Weavers	-
5	Marketing	-
6	Labour Societies	3764
7	Industrial Societies	-
8	Agro Processing and Sugar	2213
9	All others	28363
	<b>Total</b>	<b>71469</b>
<b>B</b>	<b>Details of Credit Cooperative Societies#</b>	
10	Primary Agriculture Credit Societies	7700
<b>C</b>	<b>Details of Multi State Cooperative Societies (MSCs)\$</b>	
11	No. of MSCs	47

[\*Source – RCS, GoG (data as on 31.03.2020); #Source – Institutional Development Department, NABARD, Gujarat; \$ Source- Ministry of Cooperation, GoI]

#### 1.4.4 Recent Developments/Initiatives taken by State Government in strengthening of outreach and activities of Cooperatives

Government of Gujarat is implementing a number of schemes through RCS for strengthening of the cooperatives in the State. A list policies is as under:

1. Progress Under the Centrally Sponsored Scheme of PACS Computerization: It has been agreed to shortlist PACS based on a several agreed-upon criteria including completion of audit of PACS as on 31 March 2022, a good audit score (A or B) etc. State PMU for PACS Computerization has already been formed in Gujarat and State Government is constituting SLIMC and DLIMC committees.

2. Kisan Kalpvriksha Yojna: The scheme is aimed at development of basic infrastructure like auction shed, parking sheds, RCC roads, Weigh over bridge, cold storage, ripening chambers in the 'A' and 'B' category APMCs with 50% capital subsidy. The scheme was formulated in the year 2018-19 with a total outlay of Rs.32.6 crore. A provision of Rs.25 crore has been made during the budget 2022-23.

3. Capital subsidy to PACSs, APMCs, and Cooperative institutions for the construction of new godown and interest subsidy on loan for construction of new godown – A provision of Rs.5.01 crore has been made under the scheme for this year and is expect to benefit 150 PACS and 500 farmers.

4. Under the scheme for “Providing Navigational Aids and other Infrastructural facilities”, assistance is being provided to Fisheries Cooperative societies to establish new processing plant. Provision for development of one such unit has been made in the Budget 2022-23

### **1.5 State Government sponsored programmes with Bank Credit:**

#### **Aatma Nirbhar Gujarat Sahay Yojana**

Government of Gujarat had announced ‘Atmanirbhar Gujarat Sahay Yojana’ to enable the middle class working group to overcome the challenges posed by the disruptive impact of COVID-19 pandemic. Main beneficiaries include small businessmen, skilled workers, autorickshaw owners, electricians & others.

Under the scheme, unsecured collateral free loan of ₹1,00,000/- at effective interest rate of 2% with a moratorium of 6 months, will be provided by Cooperative Banks, Credit Societies and RRBs. Although the total interest rate is 8%, eligible borrowers need to pay only 2% as remaining 6% will be paid by the State government.

The period of loan is 3 years and the Quantum of Assistance from the State Government is Rs. 5000 Crore.

### **1.5.1 Other developments in the State**

#### **a. Mukhya Mantri Kisan Sahay Yojana**

Mukhyamantri Kisan Sahay Yojana was launched in 2021 to bring agriculture under the Insurance. The scheme covers over 53 lakh farmers against crop losses occurred due to drought, excess rain or unseasonal rain, without collecting any premium. Tribal farmers registered under the Forest Rights Act are also eligible for this scheme.

A compensation of Rs.20,000/- will be given per hectare, in case of 33% to 60% damage of Kharif Crops, within an overall limit of 4 hectare. In case of over 60 percent damage to crops, per hectare Rs. 25000/- assistance will be given in 4 hectare limit. Benefits will be transferred to the beneficiaries account directly via Direct Benefit Transfer.

#### **b. Agricultural Diversification Scheme 2021**

State Government in June 2021 launched the Agricultural Diversification Scheme-2021 for benefitting Vanbandhu-farmers in the tribal areas of State. This scheme will benefit more than 1.26 lakh Vanbandhu farmers of 14 tribal districts from Ambaji to Umargam in Gujarat. Under this scheme tribal farmers will get fertilizer-seed assistance of ₹31 crores in which 45 kg of urea, 50 kg of NPK and 50 kg of Ammonium Sulphate will be provided.

An assistance of Rs. 250 crore has been provided to 10 lakh tribal farmers under this scheme in the last ten years. Seeds of crops like maize, Bitter gourd, Sponge gourd, tomato, millet, etc. are provided under this scheme.

#### **c. Kisan Suryodaya Yojana**

Gujarat Government launched Kisan Suryodaya Yojana in October 2020 for providing 16 hours of power supply to farmers. Under the Kisan Suryodaya Yojana farmers will get 3 phase power supply from 5 AM to 9 PM. Provision of electricity during the day would facilitate irrigation of crops during day time, thereby reducing the difficulties of farmers. Uninterrupted daytime supply of electricity will encourage the farmers in setting up micro irrigation system thereby achieving the objective of Per Drop More Crop and also contributes towards doubling of farmers’ income in the State.

**CHAPTER – 2****CREDIT POTENTIAL FOR AGRICULTURE 2023-24****2.1 Farm Credit**

Aravalli district has Gross Cropped Area (GCA) of 328600 ha and Net Sown Area is 209100 with Cropping Intensity (GCA/NSA) of 157.15. Paddy sowing is decreasing while Potato and Guvar is increasing. Cash crop is showing an increasing trend as compared to food crops. Wheat is an important Rabi Crop while Cotton is major Kharif Crop. The climate of the region is semi arid to sub-humid type characterized by three well-defined seasons – monsoon, winter and summer. There is a major effect of climate change and global warming on agriculture of the district. Conversion of Agricultural land into Non Agricultural land and Deforestation due to Housing Colonies increased the effect of global warming. Timber business has been on increase in the district. The rainfall was 110.9 % of the average rainfall during last monsoon season. It is covered as a NFSM-Wheat district and selected under NFSM – Pulses Development Programme of GoI. In Modasa, Bayad and Dhansura blocks, there are a good number of private seed growers and seed agencies. It is a major seed market in the country. Pattern of Land Holdings 71.26% of total farmers are having less than 2 ha. land with 34.40% holding of land area whereas 65.60% landholding is with only 28.74% farmers.

**2.1.1 Crop Production, Maintenance and Marketing****2.1.1.1 Introduction**

In this district, cotton, maize, groundnut, and pulses cover large area under Kharif cropping and wheat is an important rabi crop. As per the latest trend, Papaya and Guvar sowing has been increasing due to increased demand because of its industrial use and export. Farm Credit includes Crop Loans, Medium Term Loans for agriculture and allied activities, Loans for pre and post-harvest expenses, etc. provided to Individual farmers & Corporates directly engaged in Agriculture and Allied Activities

**2.1.1.2 Infrastructure and linkage support available, planned and gaps**

**Land Holding Pattern:** As per Agriculture Census, the number and area of Operational Holdings by Size Group in the district is as follows:

Category	Number	Area (Ha.)
Marginal Farmer (With agricultural land holding up to 1 hectare (2.5 acres)	49360	25354.69
Small Farmer (With agricultural land holding more than 1 hectare and up to 2 hectares)	36370	52698.87
Semi Medium (With agricultural land holding 2-4 ha)	24578	68112.73
Medium (With agricultural land holding 4.9.996 Ha )	9523	53169.06
Large (With agricultural land holding 10.0 & above Ha )	681	11794.03
<b>Total holding</b>	<b>120512</b>	<b>211129.38</b>

**Source: agriculture census 2015-16**

**2.1.1.3 Area and Production:** Though the climatic condition of the district is suitable for cultivation of cotton, maize, groundnut, pulses, vegetables, wheat, mustard, garlic, ginger and cumin, some of the important crops with the details of area and production of principal food crops and non-food crops during the last two years are given below:

Crop	Area ('000 hectares)		Production ('000 tonnes)	
	2020-21	2021-22	2020-21	2021-22
Rice	6084	7045	3012	3101
Wheat	87432	94138	3280	3354
Jowar	0	0	0	0
Bajra	554	551	1200	1400



<b>Total Foodgrains</b>	<b>94070</b>	<b>101734</b>	<b>7492</b>	<b>7855</b>
Cotton	42505	13767	567	43767
Groundnut	76991	66623	2340	164525
<b>Total Oilseeds</b>	<b>119496</b>	<b>80390</b>	<b>2907</b>	<b>208292</b>

Source: District Agriculture Dept

#### 2.1.1.4 Assessment of credit potential for 2023-24

(₹in lakh)

Sr.No.	Activity	Unit Ha/Nos	Scale of Finance	Physical Unit	Bank loan
1	Paddy	Nos.	0.50	7840	3920.00
2	Wheat	Nos.	0.45	44760	20142.00
3	Bajara	Nos.	0.25	2613	653.25
4	Mustard/Other Oil seeds	Nos.	0.30	14107	4232.10
5	Cotton (seed plot)	Nos.	1.00	21905	21905.00
6	Caster	Nos.	0.50	15479	7739.50
7	Maize	Nos.	0.35	34622	12117.70
8	Tobacco	Nos.	0.30	2730	819.00
9	Vegetables	Nos.	0.55	6625	3643.75
10	Ground Nuts	Nos.	0.55	30150	16582.54
11	Potato (High yield)	Nos.	1.25	5380	6725.00
12	Other Flowers	Nos.	0.40	16841	6736.40
	Sub Total			<b>203052</b>	<b>105216.24</b>
Post-harvest/Household/ Consumption + 10% of crop loan total					<b>26304.06</b>
Repairs & Maintenance of Farm Assets + 20% of crop loan total					<b>31564.87</b>
<b>Crop Loan Grand Total</b>					<b>163085.13</b>

#### 2.1.1.4 (2) Interest Subvention:

- Interest Subvention of **1.5% p.a. from Central Government and 2%** from State Government (only to the Co-operative Banks) is available to Banks, on their own funds used for short term-loans (crop loans and WC loans for animal husbandry and fisheries activities) up to ₹3.00 lakh per farmer (subject to maximum of ₹2.00 lakh per farmer for WC loan for AH&F activities) provided the lending institutions make available short-term credit to farmers @ 7% p.a. interest Subvention of 2% p.a. from State Government is available only to the Co-operative Banks on their own funds used for short-term loans.
  - An additional interest subvention @ 3% and @4% will be available from Central Government and State Government respectively to the prompt payee farmers from the date of disbursement of the short-term loan up to the actual date of repayment by farmers or up to the due date fixed by the Bank for repayment of crop loan/WC loan, whichever is earlier, subject to a maximum period of one year from the date of disbursement. Thus, the prompt payee farmers get short term-loans @ 0% interest during the year. This benefit would not accrue to those farmers who repay after one year of availing such loans.
- Soil Health Card:** State Government has launched an innovative programme to provide every farmer a Soil Health Card in a Mission mode for keeping readymade information on fertility of their soil for fertilizers recommendation and for crop planning in succeeding year. The card will carry crop wise recommendations of nutrients/fertilizers required for farms, making it possible for farmers to improve productivity by using appropriate inputs. Soil health being an important factor in agriculture production, productivity and quality of production. The soil testing laboratories working in the State covering all the districts, provide free of charge, soil testing facilities along with testing of soil micronutrient to the

farmers of all the districts of the state. The Soil Health Card is valid for three year. About 2421 farmers have got the soil health card in the district during the year 2019-20. district (District Agriculture Department).

- **Seeds:** Gujarat State Seed Corporation Ltd. has made production of ₹2.96 lakh quintal seeds during 2017-18. The Corporation has constructed its own scientific storage godowns having capacity of 1.84 lakh quintals of seeds at various district/taluka places of the State. Gradually the farmers are switching to the certified seeds available from Govt and private companies. The seed replacement ratio in Aravalli is 100% for cotton and 20% for other crops and as such there is good scope to improve the SRR in district.
- **Post-Harvest Facilities:** In Gujarat the regulated market yards have made satisfactory progress. Gujarat State Agriculture Marketing Board is organizing training programmes for various Govt. functionaries in the district and also providing computer network connection to APMCs under “Agmarknet” scheme of GOI. There are 8 APMCs in the district. There are facilities of grading and sorting through private players in the district. Good number of MSME units are situated to absorb the goods produced by the farmers by way of value addition.
- **RuPay Cards to farmers:** There are 120512 cultivators in the district out of which 73756 farmers are covered under Rupay KCC. The activation rate is 60%.(District Lead Bank).

- **Implementation of PM-KISAN and KCC saturation status:**

Pradhan Mantri Kisan Samman Nidhi (PM-Kisan) is an initiative by the Government of India in which all farmers will get up to ₹6,000 per year as minimum income support. The initiative was announced the 2019 Interim Union Budget of India on 1 February 2019. The scheme will come in effect from December 2018. ₹6,000 per year will be paid to each eligible farmer in three instalments and will be deposited directly to their bank accounts. Govt of India vide their letter dated 04 February 2019 had launched a drive to saturate all eligible farmers with Kisan Credit Card(KCC). Further Govt of India vide their letter dated 26 August 2019 had included Animal Husbandry and Fisheries farmers for KCC benefits. 15 day special drive was started from 06 February 2020. In Aravalli district out of 97891 PM Kisan beneficiaries, 80879 beneficiaries were issued KCC and the remaining 17102 PK Kisan beneficiaries were left to be issued KCC.

**Millet :** Gujarat Agro Industries Corporation Ltd is forming four FPOs on organic farming cultivation in Aravalli district. Around 1200 farmers mobilized as members of these two FPOs. International Year of Millets -2023 – Based on Government of India’s recommendation, United Nation’s General Assembly (UNGA) declared 2023 as International Year of Millets on 5th March, 2021. Bajara and Jowar are the two major millet crops grown in the district. Of which, Bajara is popularly consumed in North Gujarat districts.

#### 2.1.1.6 Suggested action points

##### **Banks:**

- Provide credit to farmers under Negotiable Warehouse Receipt Scheme
- Bringing all the farmers (especially Small & Marginal Farmers) into the formal credit network. Formulate Area Development Schemes dovetailed with Govt. Sponsored Programme and collaborate with entrepreneurs for financing.
- Issue RuPay KCCs to all the KCC holders.
- Create awareness amongst farmers about proper use of KCC.

##### **State Government:**

- All APMCs need to move towards e-NAM platform of “One Nation One Market”. Quick transformation and adoption of e-NAM by APMCs for offering better markets to farmers collection.
- There is need to increase number of rural godown for storage of agriculture commodities and avoid the distress sale of produce.
- Preliminary processing like grading, sorting, cleaning, etc., of the produce should be taken up by farmers or a group of farmers, so that the farmer can get higher prices for their produce.
- Post-harvest credit will discourage distress sale of produce by farmers and encourage them to store their produce in warehouses against warehouse receipts. It ultimately increases income of farmers.
- Procurement and marketing of agriculture produce through FPOs. Need to promote more FPOs in the district.

### **2.1.1.7 –Other Issues -Successful Interventions -Farmers Producers Organization-Role Model for FPOs**

Being an agrarian district, there is a focus on formation of Farmers Producers Organization (FPO). Hathmati Kisan Agro Producer Company (HKAPC) was registered in 2015 under Produce Fund grant programme of NABARD. The company is owned by 700 tribal farmers of Bhiloda taluka. The major objective of the company is to organize the small and marginal farmers so that they can leverage market resources and the small and marginal farmers can be brought into the agricultural value-chain. Primary objectives of HKAPC's Input Service to Shareholders business are –

1. Make farmers access to good quality inputs at best prices
2. Make access to NCDEX services and benefits of collective selling
3. Create facility for aggregation of farm-produces at local level

Year	Type of business	No. of farmers	Gross Sales (in ₹)
2016	Adad seed supply	500	200000
2017	Adad seed supply	400	525000
2017	Val Seed Supply	400	40000
2017	Mango Sapling Supply	400	20000
2017	Wheat seed supply	50	35000
2018	Chili seedling production and selling to	400	150000
2019	Turmeric Powder Selling	100Kg	18000

## 2.1.2 Water Resources

### 2.1.2.1 Introduction

The district possesses multi-seasonal climate which is semi-arid to arid and is characterized by a hot summer with general dryness except in the monsoon season. The highest temperature is 45 °C in summer while the lowest temperature is 5 °C, usually in winter season. The maximum rainfall received is 1100 mm during the monsoon season. Aravalli district is drained by three main rivers; Vatrak, Maum and Meshvo with the Majum dam serving as the major source of water for agricultural irrigation.

There are 93 small irrigation schemes, 41 irrigational facilities are available and 52 irrigation schemes are implemented in the district. The major sources of irrigation are through Canal (16800 Ha), Tanks (3600 Ha), wells (182300 Ha), others (2200 ha). There are 8 medium dams constructed on various rivers with its storage capacity of 3749.26 cubic meters. **Irrigation projects under RIDF are:**

Sr.No.	Details of Projects	Nos. of projects
1	Checkdams	717
2	Major Irrigation (Watrak Pipeline)	1
	<b>Total</b>	<b>718</b>

**Minor irrigation projects are:**

Sr.No.	Project Type	Number of Projects	Irrigated land in ha. (2019-20)
1	Minor Irrigation projects	50	5000
2	Anushravan Lakes	522	4175
3	Checkdam	717	1968

**(Source: District Statistics Office)**

The details of net ground water availability and draft details as per Ground Water Assessment shows that Net Ground Water Availability for future use is 26582.93 ha in the district and Stage of Ground Water Extraction is 57.41%. All blocks fall under safe category. There is likely to be surplus surface water resources in various stretches of canal command which can be diverted to numerous tanks & dry rivulets of the areas which will help to recharge subsurface aquifer. With efficient water management practice, seepage losses and any other surplus water can be diverted to structures built for artificial recharge.

The net ground water available for the district is 38535.58MCM(Source: GSWRDC). As far as ground water is concerned, good quality water is 40% and marginal quality water is 55.4% and the rest is saline. The district has nearly 72% of its area under irrigation through canal and tube wells. Currently, the area under tube well irrigation is increasing at a much faster rate than the increase in area by canals, however with the advent of Narmada Waters, the trend is likely to reverse.

As per the Report of the Estimation of Ground Water Resource and Irrigation Potential in Gujarat State (March 2009) of Central Ground Water Board, the ground water position of the district is very alarming and precarious. The dynamic ground water refers to the quantity of ground water available in the zone of water level fluctuation, which is replenished annually.

### 2.1.2.2 Infrastructure and linkage support available, planned and gaps

Government of India has been according lot of importance to irrigation through the Pradhan Mantri Krishi Sinchai Yojana (PMKSY) with the vision of 'Har Khet Ko Pani' (water to every farm) i.e. extending the coverage of irrigation and 'Per Drop More Crop' i.e. improving water use efficiency. The scheme is to be implemented in a focused manner with end to end solution on source creation, distribution, management, field application and extension activities. The Gujarat Green Revolution Company (GGRC) has been pioneering promotion of micro irrigation with special interest in the NABARD project areas and would be covering majority of the farmer. GGRC has also initiated plans for promoting Solar pumping systems in combination with the micro irrigation systems. This would help farmers in saving precious resources of water & power and also their hard earned money. As far as underground water resources are concerned, maximum of the total water of the district is utilized, thus making the use of underground water for crop production is risky. Therefore, check-dams are necessary for the recharging of underground water and also for minimizing run-off water.

#### Source-wise Area irrigated:

Source	Area (ha)
Canal	16800
Tanks	3600
Well/tube well	182300
Other Source	2200
<b>Total</b>	<b>204900</b>

### 2.1.2.3 Assessment of Credit Potential for 2023-24

The projection for minor irrigation activities is estimated at ₹14256.79 lakh for the year 2023-24 in the district is given in the following table:

(₹In lakh)

Sr. No.	Activity	Unit (Ha. No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Dug Well	Nos.	2.59	645	1670.55	1336.44
2	Borewells ( 1.8x0.6)	Nos.	1.28	2140	2739.20	2191.36
3	Irrigation Pump sets, Lateral size 22 mm, 1x0.6	Nos.	1.27	1326	1684.02	1347.22
4	Drip Sets 1X0.6 (Lateral size 16 mm) (Excluding Sump Cost)	Nos.	1.71	3065	5241.15	4192.92
5	Sprinkler Sets, (Lateral size 25 mm), 7.5x7.5	Nos.	0.73	1784	1302.32	1041.86
6	Lift Irrigation (1 ha)	Nos.	1.30	3298	4287.40	3429.92
7	Pipeline (1 ha)	Nos.	0.46	841	386.86	309.49
8	Renovation of wells(0 to 60) mtrs	Nos.	0.56	918	509.49	407.59
	<b>MI Total</b>			<b>14017</b>	<b>17820.99</b>	<b>14256.79</b>

The block-wise, activity-wise details furnished in Annexure I and GLC flow during the year 2019-20, 2020-21 and 2021-22 was ₹119963.00 lakh, ₹19240.36 lakh and ₹22745.85 lakh respectively.

### 2.1.2.4 Availability of Infrastructure, critical gaps & interventions required, action points/issues

- The net ground water available for the district is 38535.58 Ham (as per GWRDC).
- There are 49 GGRC authorized sprinkler and drip irrigation system dealers in the district. These dealers also offer the services of maintenance and repair.
- Diesel and electric pump sets; RCC/HDPE pipes including Drip/Sprinkler sets of all good quality/make are available locally.

**Development agencies and Department of government:**

- Formation of Water Users' Association to take over the Irrigation Structures created, the participation of WUA in the irrigation command area is very poor
- Encourage creation of farm ponds in farms, if necessary subsidised
- The irrigation utilisation in the District on an average is 50% of potential created which needs to be increased.
- To conserve water, water harvesting and recharge structures have to be encouraged.

**Banks:**

- Banks may consider financing for drip, sprinkler, etc. aggressively.
- Banks may promote Irrigation Pump sets etc. in completed and ongoing watershed projects in the district where there is substantial improvement in water table.
- Banks may consider financing solar energy pumpsets, having central govt. subsidy component, where electric supply is not available sufficiently.

**2.1.2.5 Suggested Action Points and Issues:**

- Proper and regular maintenance of water courses / channels by irrigation department will result in better irrigation efficiency. Construction of more check dams / water harvesting and recharge structures may be encouraged with active participation of farmer.
- GEDA may take initiatives to run remotely located pumps by use of solar energy.
- Artificial recharge measures implemented through GLDC through construction of rain water harvesting structures like rain water storage tanks, percolation tanks, farm ponds, check dams etc. will have to form an integral part of the minor irrigation development. Indiscriminate use and over exploitation of underground water for irrigation to be monitored and regulated by irrigation department. The farmers should be trained and motivated to use water conserving systems.

## **2.1.3- Farm Mechanization**

### **2.1.3.1 Introduction**

Indian agriculture is diverse and capable of producing most of the food and horticultural crops of the world. Agriculture Mechanization is crucial for modernization and commercialization of agriculture as it improves productivity and timeliness of agriculture operations, aids in value addition, brings down the cost of cultivation and enables climate change adaptation. The growth of farm mechanization sector is impeded by some of the characteristics of Indian agriculture such as fragmentation of land holdings, a large presence of small and marginal farmers, unaffordability of farm technology and the practicing of subsistence agriculture. About 85% of the total land holdings are small and marginal in size, and hence require appropriately designed machinery, tools and implements. Effective use of agriculture machinery helps to increase productivity & production of output, undertake timely farm operations and enable the farmers to quickly rotate crops on the same land. By raising a second crop or multi-crops from the same land, there is improvement in the cropping intensity and making agricultural land commercially more viable.

### **2.1.3.2 Infrastructure and linkage support available, planned and gaps**

It is estimated that by 2050, the total population of the world will reach 1000 crores. In the context of increasing population, providing food security and nutritious food to all is a huge challenge. This challenge is even more complex in a developing country like India. Agricultural productivity has increased significantly due to investment in agriculture and use of new technology, but it is not sufficient according to the needs and challenges of the future. Therefore, agricultural mechanization is very important for increasing agricultural productivity. Agricultural mechanization provides many other financial and social benefits to the farmers along with increasing agricultural productivity. Several studies suggest a direct correlation between farm mechanization and crop productivity. It saves inputs like seeds and fertilizers by 15–20%, labour requirement and operational time by 20–30%, increases cropping intensity by 5–20% and crop productivity by 10–15%.

At present, Indian farmers are adopting farm mechanization at a faster rate in comparison to recent past. Farm power availability from tractors has grown from 0.007 kW/ha in 1960–61 to 1.03 kW/ha in 2013–14 and it is further estimated to reach 3.74 kW/ha by 2032–33. According to the World Bank estimates, half of the total Indian population would be in urban areas by 2050. The share of agricultural workers in total power availability in 1960–61 was about 16.3%, which is going to reduce to 2.3% in 2032–33. The percentage of agricultural workers to total workers in India is continuously decreasing from 59.1% in 1991 to 54.6% in the year 2011. It is expected to further decline to 49.9% in 2033 and 25.7% in 2050 leading to severe agricultural worker shortage. *Source: Indian Journal of Agricultural Sciences 2019, 89 (10): 1555–62, October 2019.*

### **2.1.3.3 Assessment of Potential for financial year 2023-24**

The following activities are presently considered, for financing: (1) Tractors - New as well as second hand, (2) Power Tillers and (3) Other Agriculture Implements like sprayers, threshers, grading machines etc. Tractors, being a multifunctional machine, form a major aspect of farm mechanization in agriculture. Farm operations like land levelling, ploughing, harvesting, weeding, threshing, etc. are normally carried out through tractor. The mechanization of farm operations by use of tractors especially under irrigated conditions have resulted in improved agricultural practices, higher level of efficiency and increased productivity of crops. Power tillers are normally replacement for tractors in smaller field. Hand driven but effective, the power tillers are found to be better placed than the traditional plough. The banks finance tractors, power tillers and other mechanized equipments for use in agriculture, in irrigated as well as in rain fed areas. NABARD provides refinance assistance and guidance to banks for

financing of farm mechanization activities. Refinance can be made available in respect of tractors/ power tillers finance which comply with Minimum Performance Standards (MPS). NABARD has from time to time issued guidelines for claiming refinance under Automatic Refinance Facilities (ARF) in terms of which the refinance would also be available in case of second hand tractor. To avail the benefits of these schemes, the farmers need to apply through the i-khedut portal (<https://ikhedut.gujarat.gov.in/>). State sponsored subsidy schemes are given below.

1. AGR 50 Assistance to purchase Tractors
  - a. Upto 40 PTO HP Model Tractors: 25% of expense or ₹45,000/- , whichever is less
  - b. Above 40 PTO HP and upto 60 PTO HP Model Tractors: 25% of expense or ₹60,000/- , whichever is less
2. AGR 2 (Farm Mechanization) for other than SC/ST Farmers
3. AGR 3 (Farm Mechanization) for ST Farmers
4. AGR 4 (Farm Mechanization) for SC Farmers

The block wise, item-wise potential credit requirement during the year 2023-24 has been indicated in Annexure I.

(₹in lakh)

Sr. No.	Activity	Unit (Ha. No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Tractor	Nos.	7.70	600	4620.00	3696.00
2	Power Tillers	Nos.	2.00	490	980.00	784.00
3	Agri. Implements	Nos.	1.20	460	552.00	441.60
<b>Farm Mechanisation Total</b>				<b>1550</b>	<b>6152.00</b>	<b>4921.60</b>

#### 2.1.3.4 Critical intervention required for creating a definitive impact

- ✓ The costly equipment such as tractors, Rotovator, Laser leveller, Harvester etc. may be made available through government departments, NGOs, big farm houses/farmers, PPP mode etc. in a big way to reduce the cost of cultivation and increase the production & productivity of the farm which will result in increase of farmers' income and pave the way for doubling the farmers' income.
- ✓ There is a need to popularize power tiller as well as mini tractors to facilitate various farm operations. It is also necessary to introduce mechanization in other areas like primary and secondary tillage operation, plant protection, harvesting of crops, digging of root crops, threshing, winnowing, chaff cutting, grain cleaning and grading including handling etc. The equipments for the same are available and the need now is to popularize and extend credit support for such equipments.
- ✓ Government agencies should sensitize the farmers about usefulness of potato diggers/planters, zero till drills, laser land leveler etc.
- ✓ As part of the "Swatch Bharat Abhiyan", the mechanized composting units may be thought of for disposal of huge farm waste in a productive and income generation model, beside creating the clean, hygienic and "Zero Waste" environment. The equipment's for the same are available and the need now is to popularize and extend credit support for such equipments.

#### 2.1.3.5 Suggested Action Points

- a) Establishment of Custom hiring centers from farmers group, agri entrepreneurs, FPO, PACS may be promoted (**Action: Banks, Agriculture Department**)



- b) The farmers having operational holding of less than 5-acre perennial irrigated land discouraged to own the tractors, as the same may not be economical. **(Action: Govt of Gujrat, Banks, NGOs)**
- c) Technical know-how should be provided to the farmers with respect to appropriateness of farm machinery for the situation and its proper use. **(Action: Agri Dept, KVK, Agri University)**
- d) Service units should be encouraged and mobile service units should be started. **(Action: Agri Dept, banks)**
- d) Training needs to be imparted to farmers and artisans in handling farm machinery and equipments, and ensured their optimum utilization, etc. **(Action: KVKs, RSETIs).**
- e) Due to the seasonal nature of the agriculture, there is a possibility for the farm machinery to remain idle for longer periods of time. Thus, there is a need to educate farmers on proper alternate use of such machinery in the off-season to avoid defaults and ensure proper utilization of the asset. **(Action: KVKs, RSETIs).**

#### **2.1.3.6 Other Related Matters**

The usage of tractors basically depends on land holding pattern. As can be seen from pattern of land holdings in the district Profile, 71.14% of total farmers are having less than 2 ha. These farmers are potential clients for Farm Mechanization activities and hold good scope for bank financing in the district. For Small and Marginal farmers mini tractor is economically and financially viable. Few farm machinery and tractor manufacturing companies are providing digital / Mobile App based custom hiring services to farmers in the State. e.g. TRRINGO by Mahindra & JFarm Services by TAFE. There are 33 custom hiring centers in the district.

## 2.1.4 - PLANTATION AND HORTICULTURE

### 2.1.4.1 Introduction

Horticulture sector that includes production, post-harvest management, processing, marketing and export of wide range of crops such as fruits, vegetables, flowers, spices, plantation crops, medicinal and aromatic plants contributes significantly to the economy of the country as well as State. Growing plantation & horticulture crops is an ideal option to improve livelihood security, enhance employment generation, attain food & nutritional security and increase income through value addition. Since the past decade, India has witnessed a huge demand for horticultural produce from domestic market due to increase in per capita income and shift in consumption pattern of the population and international markets as well. This phenomenon has provided a big opportunity to the farmers for fetching higher income through high value horticultural crops.

Agro climatic conditions of this district is conducive for development of various horticulture crops. Horticulture accounts for about 30 per cent of India's agricultural GDP from 13.08 per cent of cropped area. The predominant horticulture crops of the district are, Fruit crops like Mango, Guava, Aonla, Papaya, and vegetables like potato tomato, chilli, pigeon pea, cauliflower, cabbage and brinjal, the spices like ginger, turmeric, coriander and flowers like marigold. It also provides about 37 per cent of the total exports of State agricultural commodities.

Plantation and Horticulture sector assumes special place in our agrarian economy. By adopting scientific cultivation of horticulture crops, even small and fragmented land holdings could be transformed as economically viable and ecologically stable units. Horticulture and plantation also enriches the waste lands and dry lands. Aravalli district has coverage of 40018 ha. which is 10.04 % of total cultivated area. There is a large scope for development of horticulture crops in the district. Almost 200 naturally ventilated polyhouses (green houses) for cultivation of flowers / vegetables are established so far. Comparative position of last three years for various Horticulture crops in District is given in the following table:

(Area in Ha; Production & Productivity in MT)

Sr. No	Horti-culture crop	2019-20			2020-21			2021-22		
		Area	Prod-uction	Produ-cti-vity	Area	Prod-uction	Prod-uc-tivity	Area	Prod-uction	Prod-uc-tivity
1	Fruit Crops	4887.5	122047	24.97	4887.5	122047.3	24.97	4613	129939	28.17
2	Vegetables	27130	830543	30.61	27130	830542.8	30.61	27562	825245	29.94
3	Creeper Vegetables	187	36038.6	19.27	1870	36038.61	19.27	1939	38654.2	19.93
4	Spices	3587	13210.4	3.68	3587	13210.39	3.68	3683	13254.9	3.59
5	Floriculture	121	1181.07	9.78	121	1181.07	9.76	126	4812.5	17.3
6	Other Vegetables	140	2970.9	21.22	140	2970.9	21.22	415	7518	18.11
	<b>Total</b>	<b>36053</b>	<b>1005990.97</b>	<b>109.53</b>	<b>37736</b>	<b>1005991</b>	<b>109.51</b>	<b>38338</b>	<b>1019423</b>	<b>117.04</b>

(source: [doh.gujarat.gov.in](http://doh.gujarat.gov.in))

The fruit crop cultivation in last few years has increased as the soil is highly conducive to for the same. Another reason for increase is a few success stories of local farmers, winning various awards.

The major fruit crops are guava, ber, papaya and pomegranate. Potato, Cauliflower and Cabbage are main vegetable crops and Fennel is major spice grown in the district. The papaya

and potato cultivation increased due to suitable climatic conditions and increased awareness of farmers for horticulture crops and its market demand.

#### 2.1.4.2 Assessment of Credit Potential for the year 2023-24

The block wise, item-wise potential credit requirement was achieved during last three years was ₹21356.00 lakh in 2019-20, ₹819.09 lakh in 2020-21 and ₹15381.81 lakh.

The block wise, item-wise potential credit requirement during the year 2023-24 has been indicated in Annexure I and total potential is given below:

Sr. No.	Activity	Unit (Ha. No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Mango (5 x 5)	Nos.	2.17	220	477.40	381.92
2	Lime / lemon	Nos.	1.45	358	519.10	415.28
3	Amla	Nos.	0.90	145	130.50	104.40
4	Dragon Fruit	Nos.	7.19	1900	13661.00	10928.80
6	Nursery(Naturally ventilated)	Nos.	4.24	587	2488.88	1991.10
7	Custard apple	Nos.	1.14	30	34.20	27.36
8	Green House-rose cultivation	Nos.	40.00	45	1800.00	720.00
9	Sapota	Nos.	1.29	24	30.96	24.77
10	Ber	Nos.	0.45	49	22.05	17.64
11	Guava	Nos.	1.10	35	38.50	30.80
12	Pomegranate	Nos.	1.44	63	90.72	72.58
<b>Plantation Horticulture TOTAL</b>				<b>3456</b>	<b>19293.31</b>	<b>14714.96</b>

#### 2.1.4.3 Availability of Infrastructure, Critical Gaps & Interventions Required

- At present the network of extension offices of Dept. of Horticulture is overseeing the task of horticulture development in the district. However, the extension work is affected due to inadequate staff strength of subject expert/ Officer Level.
- NABARD supported Tribal Development Programme, focusing on wadi development for sustainable development of tribal families, may be of help to enhance the horticulture activities. There are two projects under implementation with 2000 Ha of land for horticulture production.
- Under Indo-Israel agriculture cooperation agreement of 2008 and the IIAM (Indo Israel Agriculture Plan), NHM and MASHAV (Israel's Agency for International Development Corporation Ministry of Foreign Affairs) together set up Center for Excellence on Vegetables at Vadradi village in Prantij Block. Vadradi CoE is the only center in India where 23 different types of protected cultivation structures are located at one place with more than 18000 square meter of area under protected cultivation. High tech Plug Nursery provides pest & disease free High Quality Sapling in Plug Tray developed from Farmer's own seeds @ one Rupee per seed.

#### 2.1.4.4 Action Points/Issues to be addressed

- Government may encourage Growers Co-operatives/Associations with a view to facilitating transfer of technology, procurement and distribution of inputs, providing market information, processing, branding and marketing of the produce.
- The government may play a catalytic role in popularization of contract farming of medicinal and aromatic plants and development of standard package of practices for organic cultivation and medicinal plants.
- There is scope to promote nurseries. Government may give thrust for setting up of public and private nurseries.

- iv. Value Chain Management approach can be adopted for major horticulture produce of the State like mango, banana, sapota, onion, etc.
- v. Of late, a greater number of farmers have started potato cultivation in the district. Creation of cold storage facility would attract farmers for cultivation of potatoes. There is a potential for diet wafers market through starch-less potato farming.

#### 2.1.4.5 Other Related Matters

- Programs to improve the quality of seeds, selling and fruits production
- New plantings of Fruits Crops
- Programs to increase the Vegetables production
- Promotion of new FPOs for horticulture production
- To increase productivity in Spice crops
- Cultivation of fragrant and medicinal crops
- Protected agriculture, Organic agriculture
- Mushroom and Beekeeping, Demonstration, training and skill development

#### Success Story in Wadi project under Tribal Development Fund (TDF)

**Project Area :** TDF WADI Project - NABARD has sanctioned TDF



-WADI Project in Bhiloda block of Aravalli in 2014-15 for 1000 tribal farmers. During the implementation of the project VIKSAT (PIA) has formed Joint Liability Group ( JLG )) -Shree Ashirvad Viksat Mahila Swa Sahay Juth was formed in the year 2015 and all small and marginal farmers.

**Objective :** To enhance the income of Tribal Farmers through TDF-WADI programme to increase the income of farmers by promoting entrepreneurship under wadi project.

**Intervention :** Under TDF WADI Project , the trainings was conducted on Vermicomposting during implementation period. The main objective was to build capacity of the JLG/SHG to learn and trained them, how the Vermicomposting is carried out and good quality vermi compost prepared from farm waste.

**Impact:** Skill enhancement, increased income and improved the Socio-Economic status of rural women. Initially JLG was availed loan of Rs.30000/- for carry out the vermicomposting activity. They prepared good quality vermicompost, first they used it on their farm and surplus sold it and earned additional income and also repaid the loan. JLG has produced 37500 kg vermi compost from 5 beds and earned an income of ₹2,62,250/- The JLG is increasing their production every year and earning net profit of ₹2,31,00/-.

## 2.1.5

### FORESTRY AND WASTELAND DEVELOPMENT

#### 1. Introduction

Forests are essential for sustenance of life as well as for maintenance of ecological, biological and environmental equilibrium. Besides, its role is crucial in meeting the fuel wood, fodder, small timber and other forest produce requirements of the rural population. The National Forest Policy 1988 recommends coverage of at least 33% of the geographical area under forest & tree cover to maintain the ecological balance of any region which is envisaged through sustainable interventions. As per latest India State of Forest Report, 2021 the total Forest and tree cover in Gujarat is 11.14% of the State's geographical area which is far below the recommendations of the National Forest Policy, 1988. According to rainfall pattern, the State is divided into eight agroecological zones wherein maximum area of the State is in Arid zone while minimum area is under heavy rainfall. The Aravalli Range (also spelled aravali) is a mountain range in Northern-Western India, running approximately 670 km (430 mi) in a south-west direction.

As per Gujarat Forest Statistics, this district has 50000 ha of land under forest which constitute 14.15 % of it's total area as against average of 11.13% for Gujarat State as a whole. Raising of trees on Farm lands (lands which are lying barren and unutilized for many years) / on bunds and boundaries of agricultural fields. Raising forestry/ farm forestry plantations by Forest Department Corporations/ User Industries/Wasteland Development Corporations etc. on Government wastelands, forest wastelands or private wastelands. Government of Gujarat initiated Joint Forest Management (JFM) Programme in the State from the year 1991 for the rehabilitation of degraded forests Under JFM, Village Forest Protection Committees (VFPC) are constituted to cover the village common land for grounding the programme.

#### 2. Infrastructure and linkage support available, planned and gaps

As per the Wasteland map of India 2015-16, area under wastelands in Gujarat is 2174039 ha which is about 11 percent of the geographical area. The State Forest Department is implementing various afforestation programmes like Joint Forest Management apart from various schemes under Social Forestry. For decentralized nurseries financial support is being provided by the Forest department.

The Forest department is implementing a scheme for rehabilitation of degraded farmlands which is for private farmlands, especially those with medium to low productivity. These are selected for tree plantation in block or on the bunds. The Department undertakes raising of plants, digging of pits and planting in the farm at its cost. National agroforestry policy has been formulated by GoI in 2014 to give impetus to agroforestry in the country. Gujarat State Forest Development Corporation Ltd. is appointed as the sole agent of Government to purchase, sell and transport Non timber Forest Produce in Gujarat. It is engaged in collection, processing and marketing of Non Timber Forest Produce. They have an Ayurvedic and herbal manufacturing project under the brand name Dhanvantari.

Government of India may promote agroforestry and farm forestry by incentivizing these activities. Afforestation of wastelands also needs to be incentivized so that large tracts of such land can be brought under tree plantation.

#### 2.1.5.3 Assessment of credit potential for 2023-24

Forestry and Wasteland development as a sector plays a vital role in the socio-economic and rural development of a country apart from its role in maintaining ecological stability. Wasteland is degraded land, can be reclaimed by the planting of suitable tree species and eventually making it suitable for habitation and cultivation. This involves growing appropriate species of trees of economic value on degraded land that has been unutilized/ underutilized. Farm forestry, agro forestry, community forestry, social forestry, commercial forestry and

commercial nurseries etc are various management practices used for reclamation of degraded and wasteland. In addition, the nature and causes of the land degradation, and the degree and extent of damaged lands need to be determined, so that developmental agencies in participation with stakeholders proactively adopt measures to reclaim degraded lands. Assessment for the year 2023-24 has been made at ₹184.73 lakh. The block-wise, item-wise, potential credit requirement during the year 2023-24 has been indicated in Annexure I.

(₹in lakh)

Sr. No.	Activity	Unit (Ha. No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Farm Forestry	Nos.	0.50	339	169.50	144.08
2	Waste Land Development	Nos.	0.12	85	10.20	8.67
3	Bio Diesel & Jatropha	Nos.	0.71	53	37.63	31.99
<b>Forestry Total</b>				<b>477</b>	<b>217.33</b>	<b>184.73</b>

#### 2.1.5.4 Critical intervention required for creating a definitive impact

- The convergence between MGNREG and the National Afforestation Programme should be ensured.
- Forest Department may promote cattle-protection trenches on experimental basis in farmlands adjoining forest areas to prevent/lower the incidence of foraging animals causing damage to the crops cultivated therein.
- There is a large scope for growing bamboo, both in the forest and non-forest areas, for generating additional income for the farmers and regenerating the soil health.
- Farmers may be educated and encouraged to adopt agro-forestry / farm forestry.

#### 2.1.5.5 Suggested Action Points:

- Credit linked subsidy needs to be provided as incentive to involve farmers/Corporates/NGOs and other interested entities to encourage large scale cultivation of forestry species.
- The problem of timely availability of planting material and quality planting stock could be addressed through promotion of decentralized nurseries.
- In all natural resource management programmes, planting of forestry species needs to be incorporated as a component.
- Value addition to forest based products need to be encouraged and facilitated, training and other infrastructural support could be provided. There is potential for promoting forest based cottage industries in Gujarat.
- The need to make available easy finance for setting up nurseries to individuals/SHGs have to be addressed. Banks may finance SHGs/individuals for setting up of nurseries.

**2.1.5.6 Other related issues:** Considering the national importance of this sector, it is essential to promote the forestry and Wasteland Development Programme, and exploit the potential through Farm Forestry, Agro Forestry, Commercial Forestry and Commercial Nurseries.

- Forestry Department to create awareness among farmers for taking up integrated agroforestry activities on their farm land
- Provide capacity building training to tribal women SHGs under Good Agriculture and Collection Practices (GACP) for collection, processing and marketing of Non Wood Forest Produce.
- Protecting collector's interest by developing models where they are shareholders for collection and marketing of Non Wood Forest Produce.
- There is a need to make available easy finance for setting up nurseries to individuals/SHGs/JLGs which could be addressed by Banks.

## 2.1.6 ANIMAL HUSBANDRY - DAIRY DEVELOPMENT

### 2.1.6.1 Introduction

Dairy farming is one of the major subsidiary activities in the district providing employment opportunities to the rural poor. The milk production during 2019-20 was 1394.54 million tonnes (37<sup>th</sup> Livestock Survey Report). As per the 20<sup>th</sup> livestock census the total cattle and buffalo population in the district is 3.85 lakh and 4.25 lakh respectively (20<sup>th</sup> livestock census 2019). Cross Bred cow rank first with milk production of 248150 tonnes contributing 15.58% in total milk production of the State while total cattle rank second in the State.

The Animal Husbandry sector plays an important and vital role in providing nutritive food, rich in animal protein, to the general public and supplementing income of the farmers & dairy entrepreneur. In addition, it offers a good employment generation potential, if adopted on a large commercial basis. More importantly, Animal husbandry provides scope for woman empowerment in rural India. The agro-climatic conditions in the district are favorable for dairy activities due to good rainfall during monsoon season.

This district has played a pivotal role in strengthening the co-operative movement through dairy development activities that has culminated in laying foundation stone of SABAR DAIRY in Himatnagar the year 1964. Since then, the dairy development has become the backbone of economic activities of the district. The climate of the State is conducive to adoptability of cross bred and up-graded bovines.

As per the breeding policy of the State, indigenous breeds with good genetic potential for milk production (like Gir, Kankrej, Jaffrabadi, Surti, Mehsana and Banni) will be maintained pure and breeding programme will be based on principles of selective breeding for improved milk production. Crossbreeding with Jersey or Holstein Friesian will be used throughout the State for cross breeding of non-descript animals. In view of different geographical factors and local preferences, pure breeding or upgradation with local established breed will be preferred.

### 2.1.6.3 (A) Assessment of potential for the year 2023-24

The credit flow for this sector was ₹45159.00 lakh, ₹13661.01 lakh and ₹29400.87 lakh in 2019-20, 2020-21 & 2021-22 respectively. Dairy is a second main livelihood activity in the district. Considering the receipt of applications for very popular Dairy Entrepreneur Development Scheme and demand from various sectors including farmers, the financial projections has been estimated to Rs.25479.76 lakh. Activity wise assessment of potential for the year 2023-24 (physical and financial terms) is given in the following table.

(₹in lakh)

Sr. No.	Activity	Unit (Ha. No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	CB Cows	Nos.	1.20	6950	8340.00	6672.00
2	Buffaloes	Nos.	1.30	6750	8775.00	7020.00
3	Indigenous cows	Nos.	1.20	6650	7980.00	6384.00
4	Cattle Shed	Nos.	1.70	3256	5535.20	4428.16
5	Milk House	Nos.	3.00	140	420.00	336.00
6	Milk-O-Tester	Nos.	0.50	85	42.50	34.00
7	Fodder Development	Nos.	0.20	3060	612.00	489.60
8	Mini Dairy	Nos.	5.00	29	145.00	116.00
	<b>Dairy Development Total</b>			<b>26920</b>	<b>31849.70</b>	<b>25479.76</b>
	<b>WC_AH</b>		<b>0.15</b>	<b>810000</b>	<b>121500.00</b>	<b>36450.00</b>
<b>Grand Total DD+WC_AH</b>					<b>153348.75</b>	<b>61929.76</b>

### 2.1.6.3 (B) Assessment of potential for Working Capital (WC) -KCC – Dairy, for 2023-24

In the Budget 2018-19 the Union Government had announced their decision to extend the facilities of Kisan Credit Card (KCC) to Animal Husbandry farmers and Fisheries (AH & F) farmers to help them meet their working capital (WC) requirements. In pursuance of the same RBI, vide its Circular No. RBI/2018-19/112 dated 04.02.2019 instructed all Commercial Banks to provide WC to Animal Husbandry farmers (Dairy, Poultry, Sheep-Goat-Piggery) and Fisheries farmers through KCC. NABARD Vide Circular No.34 dated 13.02.19 instructed the same to Cooperatives & RRBs. Both RBI and NABARD advised that Scale of Finance for Animal Husbandry (Dairy, Poultry, Sheep-Goat-Piggery) and Fisheries will be fixed at District level by District Level Technical Committee(DLTC).

The Scale of Finance(SOF) for Animal Husbandry (Dairy, Poultry, Sheep-Goat-Piggery) and Fisheries for Aravalli District was fixed in DLTC meeting held on 27.11.2021 (Activity-wise SOF given in Annexure. Keeping the above in view, Potential for Bank Loan towards WC for Animal Dairy for the year 2023-24 has been worked out in consultation with the major Banks and Animal Husbandry department of the District as given below:

Block-wise, credit potential indicated in Annexure I.

Sr. No	Type of Animal	Total No. of Animals in the District *	No. of animals reckoned for 01 Unit**	Unit Cost (₹Lakh) **	No. of Units of Animals available in the District (3)/(4)	% age of Col.(5) for which potential for Bank Credit is envisaged \$	No. of Units of Animals for which potential for Bank Credit is envisaged (6)x(7)/100	Amount of Bank Loan (₹Lakh) (5)x(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Cows (CB)	200000	1	0.15	200000	30	60000	9000.00
2	Cow (Indigenous)	185000	1	0.15	185000	30	55500	8325.00
3	Buffaloes	425000	1	0.15	425000	30	127500	19125.00
	<b>Total</b>	<b>810000</b>					<b>243000</b>	<b>36450.00</b>

### 2.1.6.3 Infrastructure and linkage support Available, Planned and gaps

#### I. Available Infrastructure

##### i. Veterinary facilities available at present :

Vet. Hospitals/Dispensaries [No]	40	Animal Markets [No]	Nil
Disease Diagnostic Centers [No]	18	Milk Collection Centers [No]	1330
Artificial Insemination Centers [No]	86	Dairy Cooperative Societies [No]	1063

- ii. According to a survey, 5% of total agricultural land is utilized for cultivation of green fodder. Arrangements were also made to get 29 Community Fodder Farms to grow green fodder in different parts of the district under different panchayats. These farms were taken on lease for cultivation of fodder by landless farmers on no-profit-no-loss basis.
- iii. There are animal markets at Ahmedabad, Bayad, Modasa, Mehsana and also purchased from other States like Punjab and Maharashtra.
- iv. Aravalli District Cooperative Milk Producers Union Ltd has also provided A.I. and it was performed to 599967 of which cows-380297, buffaloes-219670. Milk Union has provided 529.5 MT fodder seeds to cooperative milk societies.
- v. There are 1330 centres active under Sabar Dairy. The main activities carried out under Artificial Insemination (A.I.), Castration, and Cattle camp for producing health services, fodder development and other activities.



- vi. There are 1063 dairy cooperatives in the district covering 682 villages with a membership of 2.05 lakh. Average daily procurement by these cooperatives was 33.53 litres per day during 2020-21. The Sabarkantha District Cooperative Milk Producers Union Ltd. is operating a dairy in Sabarkantha and Aravalli districts. The capacity utilization is 70% and the Sabar Union produces packs of Amul Butter, Amul Ghee, Amul Paneer, Amul Masti Dahi, Amul Probiotic Dahi, Amul Shrikhand, Amul Kool, Amul Gold Milk, Amul Shakti Milk, Amul Buttermilk, Amulspray, Amulya & Amul Skimmed Milk Powder etc. There are 04 milk chilling centres at Shyamlji, Dhansura and Bayad with a capacity of 1.5 lakh of litres per day respectively. The average capacity utilization is 100%. There are 658 bulk milk coolers at various villages with a different capacity are as under.

Capacity MT (Bulk milk coolers)	Nos.
1000	28
2000	205
3000	188
4000	41
5000	196

The average capacity utilization of these bulk milk coolers during 2018-19 was around 70%.

- vii. Vaccines and medicines are also provided by the Sabar Dairy Milk Union. There is no problem in supply of vaccines for major diseases.

## II. Infrastructural Development taken up during 2019-20

The loan has been sanctioned by NDDDB under DIDF and Bulk Milk Cooling Plant installation by NABARD to Sabar Dairy.

## III. Infrastructure Gap

To take care of the health needs of the animals, more veterinary institutions are required. According to recommendations of National Commission on Agriculture, one Veterinary institute for 5000 adult cattle units and one AI center for 1000 breedable female population are required.

Sr. No.	Description	Place	Cows (CB)	Cows (Indigenous)	Buffaloes	Goats
1	No. of Animals (Lakh)	Aravalli	2.72	1.37	4.21	3.34
		Gujarat	8.77	19.00	37.01	18.44
2	Productivity (milk yield per day per animal) (kg)	Aravalli	780.49	120.90	467.69	25.46
		Gujarat	4217.17	3235.81	7507.52	331.84
3	Share (%) in total milk production	Aravalli	9.709%	4.012%	4.340%	0.619%
		Gujarat	9.374%	4.462%	5.229%	0.486%

Source (for above para & table): 37<sup>th</sup> Livestock survey report of Gujarat

- The climate of the State is conducive to adaptability of cross-bred and up-graded bovines.
- The district has 40 Veterinary Hospitals/Dispensaries, 18 disease diagnostic centres and 86 artificial insemination centres.

### 2.1.6.4 Critical interventions required for creating a definitive impact

- There is one District Animal Husbandry Office for coordination of Dairy Development activities.
- There is no Cattle Breeding Farm under AH and Buffalo Breeding farm.

- There is need to establish at least one or two cattle feed plants as there is only one cattle feed plant established by SABAR Dairy.
- SABAR DAIRY is the institution instrumental in development of dairy activity in the district. Its handling capacity is 30 lakh liters per day. At present, there are nearly 150 milk routes through which dairy is collecting 30 lakh liters of milk per day. Dairy is having 974 registered Milk Co-operative Societies with membership of 2.06 lakh.

#### **2.1.6.5. Suggested action points**

- State line department as Directorate of Animal husbandry working at district level can proactively work with farmers by massive campaign for vaccination, cattle camp/ exhibitions for creating awareness about cattle disease, Artificial Insemination (AI).
- Issues related with insurance of livestock need to be resolved. Suitable insurance product can motivate bankers in financing more units without hesitation.
- Strengthening of breeding farms for augmenting the supply of quality animals.
- There is no regulated Animal market, Carcass Utilization Centre, Rinderpest Check Post, Cattle and Buffalo Breeding farm in this District. Dairy Co-operatives and Government should come together for betterment of this sector.

#### **2.1.6.6 Any Other Issues**

- The Union Finance Minister made the announcement in the Union Budget for 2017-18 to set up Dairy Processing and Infrastructure Development Fund (DIDF) with NABARD with total financial outlay of Rs.10881 crores. NABARD has sanctioned loan under DIDF to Sabar Dairy of ₹348.80 crore and ₹168 crore disbursed.
- To produce and supply wholesome milk and milk products in hygienic condition at reasonable price to the consumers trust.
- Focus on providing assistance to members of Village Dairy Co-Operative Societies, District Cooperative Milk Producers' Unions and Village Dairy Cooperative Societies for purchase/establishment of various infrastructure/equipment-materials

## 2.1.7 ANIMAL HUSBANDRY – POULTRY DEVELOPMENT

### 2.1.7.1 Introduction

Poultry farming can be taken on a commercial basis and as rural backyard units. They provide supplementary income to the underemployed rural poor besides providing nutritional security. As per 37<sup>th</sup> livestock survey, the total 2.77 lakh birds was available which includes desi birds and improved birds.

Egg production during the year 2019-20 was about 101.61 lakh including production from desi birds. The district ranks last in the State of Gujarat in egg production. As the population of the district are primarily vegetarian, the actual demand is very less. The production of desi poultry during the year 2018-19 was 34556 kg. (Source: 37<sup>th</sup> Survey Report 2019)

The per capita availability is 7.00 eggs per annum as against the nutritional requirement of 180 eggs per annum. The per capita availability of broiler meat is 12029 Kg per annum and in case of desi Layer it is 34556 kg per annum.

Poultry farming has very good potential in the district and it is emerging as important livelihood activity. Farmers are taking interest especially in broiler farming. The total poultry population of the district was 2.76 lakh as per 37<sup>th</sup> Survey Report.

There are 2 Intensive Poultry Development Projects, Poultry Extension Centers and one Poultry Feed Testing Laboratory functioning for the poultry development and allied activities. Moreover, there are 6 Poultry Service Centers functioning for the poultry development and extension activities. For the new entrepreneurs, the basic of poultry production - Day Old Chicks (with improved germ plasma) and balanced poultry feed are provided at their door steps.

### 2.1.7.2 (A) Assessment of Credit Potential for 2023-24

The potential under this sector for the year 2023-24 is assessed at ₹15122.72 lakh. As given in the following table.

Sr. No.	Activity	Unit (Ha. No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Broilers ( 1000 birds)	Nos.	4.60	548	2520.80	2016.64
2	Layers (1000 birds)	Nos.	1.60	536	857.60	686.08
	<b>Poultry TOTAL</b>			<b>1084</b>	<b>3378.40</b>	<b>2702.72</b>
	<b>WC_Poultry</b>		<b>0.15</b>	<b>276000</b>	<b>41400.00</b>	<b>12420.00</b>
	<b>Grand Total Poultry + Working Capital</b>			<b>277084</b>	<b>44778.40</b>	<b>15122.72</b>

GLC flow during the year 2019-20, 2020-21 and 2021-22 was ₹10360.00 lakh, not available and ₹828.34 lakh respectively. Block wise and activity wise given in the Annexure I.

### 2.1.7.2 (B) Assessment of potential for Working Capital (WC) -KCC –Poultry for 2023-24

Keeping the above in view, Potential for Bank Loan towards WC for poultry in the District for the year 2022-23 has been worked out in consultation with the major Banks and Animal Husbandry department of the District as given below:

Sr. No.	Type of Animal	Total No. of Animals in the District *	No. of animals reckoned for 01 Unit**	Unit Cost (₹Lakh) **	No. of Units of Animals available in the District (3)/(4)	% age of Col.(5) for which potential for Bank Credit is envisaged \$	No. of Units of Animals for which potential for Bank Credit is envisaged (6)x(7)/100	Amount of Bank Loan (₹Lakh) (5)x(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Poultry (Commercial Layer)	200000	1	0.15	200000	30	60000	9000
2	Poultry (Brioler)	76000	1	0.15	76000	30	22800	3420.00
	<b>Total Poultry</b>	<b>276000</b>					<b>82800</b>	<b>12420.0</b>

#### 2.1.7.3 Availability of Infrastructure, critical gaps & Intervention required, action points / issues

- Under the Integrated Poultry Development Project there are 6 poultry service centers of which 5 Service Centers are operating in tribal areas. Through poultry service centers, important activities like provision of day old chicks, vaccination, debarking, medication, prevention of diseases, distribution of poultry feed and medicines etc. are undertaken for poultry beneficiaries in tribal areas.
- There is one private and one government poultry feed manufacturing unit providing poultry feed to the beneficiaries and one district poultry-breeding farm is supplying chicks.
- Special component poultry subsidy for assistance on establishment of 25 RIR birds' Unit. 75% subsidy in a form of asset 25 RIR birds is given. Total unit cost -6000/- & subsidy value ₹4500/- for SC/ST.
- Assistance for establishment of 100 Broiler birds' Unit. 75% subsidy in the form of amount. Total unit cost ₹36000/- and subsidy value ₹27000/- for SC.
- Scheme to give stipend on completion of six days' poultry management training. Considering ₹300/- per day, ₹1800/- for 6 days as Daily allowance and Rs.200/- as to & fro transport fare with the maximum total stipend Rs.2000/- for SC.

#### 2.1.7.4 Suggested action points / Issues :

- The focus of the GoI is promotion of improved desi poultry while ensuring the bio-secure environment. Such an approach also provides opportunity for small farmers, especially weaker sections to derive benefit out of poultry production and promotes inclusive growth. Department of Animal husbandry / Banks may promote establishment of backyard poultry farms with low input technology birds in the light of incentives available under GoI scheme.

#### 2.1.7.5 Other related issues :

- Profitable poultry farming requires organized marketing infrastructure. The poultry sector is devoid of modern, hygienic and organized marketing infrastructure. Banks may finance cold chain for poultry products, transport vehicles, refrigerated vehicles for marketing of poultry eggs and broiler meat and egg carts in semi urban and large sized villages.
- Contract broiler farming could be explored with tie up with some private firms like M/s Venkateswara Hatchery, Godrej and M/s Suguna hatchery.
- Backyard poultry could be promoted as an income generating activity through SHGs in coordination with banks in tribal blocks.

## 2.1.8 ANIMAL HUSBANDRY – SHEEP, GOAT AND PIGGERY

### 2.1.8.1 Introduction

Sheep and Goat rearing activities are undertaken on a modest scale in view of agro climatic conditions and limited availability of grazing land in the district.

(’00 Nos)

Species	2019
Goat	177028
Sheep	30536

Source :20<sup>th</sup> Livestock census 2019

Drenching and Vaccination Camps are organized to improve health of Sheep and Goats. Farmers rearing Sheep and Goats are offered Improved Male for breeding at nominal price to help them to fetch more wool production. Training Programmes for profitable Sheep-Goat Farming are organized by Animal Husbandry department. Individual Beneficiary Schemes are implemented for upliftment of the Farmers rearing Goats and Sheep.

**2.1.8.2 (A) Assessment of Credit Potential for 2023-24:** The potential under this sector for the year 2023-24 is assessed at ₹246.64 lakh as detailed below. Block wise and activity wise potential for the year 2023-24 is given in the Annexure I.

(₹in lakh)

Activity	Unit (Ha. No.)	Projections for 2023-24			
		Unit Cost	Physical Unit	TFO	Bank loan
Sheep Rearing (20+1)	Nos.	0.75	171	127.88	102.30
Goat Rearing (10+1)	Nos.	0.45	253	113.85	91.08
<b>Sheep Goat Rearing TOTAL</b>			<b>424</b>	<b>241.73</b>	<b>193.38</b>
<b>WC_SG</b>		<b>0.15</b>	<b>207564</b>	<b>31134.60</b>	<b>9340.38</b>
<b>Grand Total DD+WC_SG</b>			<b>207988</b>	<b>31376.33</b>	<b>9533.76</b>

GLC flow during the year 2019-20, 2020-21 and 2021-22 was ₹3940.00 lakh, ₹81.00 lakh and ₹10267.00 lakh respectively.

### 2.1.8.2 (B) Assessment of potential for Working Capital (WC) -KCC – Sheep, Goatery and Piggery for 2023-24:

As indicated in paragraph 2.1.6.5, the facilities of Kisan Credit Card (KCC) is extended to sheep-goat-piggery sector also. The Scale of Finance(SOF) for Animal Husbandry (Dairy, Poultry, Sheep-Goat-Piggery) and Fisheries for Aravalli District was fixed in DLTC meeting held on 27.11.2021 (Activity-wise SOF given in Annexure V. Keeping the above in view, Potential for Bank Loan towards WC has been worked out in consultation with the major Banks and Animal Husbandry department as given below:

Sr. No	Type of Animal	Total No. of Animals in the District *	No. of animals reckoned for 01 Unit**	Unit Cost (₹Lakh) **	No. of Units of Animals available in the District (3)/(4)	% age of Col.(5) for which potential for Bank Credit is envisaged \$	No. of Units of Animals for which potential for Bank Credit is envisaged (6)x(7)/100	Amount of Bank Loan (₹Lakh) (5)x(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Sheep/Goat	207564	1	0.15	207564	30	62269	9340.38

### 2.1.8.3.Availability of Infrastructure, critical gaps & Intervention required, action points / issues

- Financing of Sheep and Goat sectors has to be scaled up for meeting the growing demand for meat and meat products while bringing positive growth in the population of sheep.

- Minimum Support Price of wool should be increased by Animal Husbandry department so that Bharwad and Rabari community who are leaving this business may turn back to this business again.
- Introduction of health card system is necessary as on account of migration, stay period in Aravalli district is from June to October and deworming and vaccination facilities can be made available during this period. Dept. of Animal husbandry should undertake work of ram certification, flock registration and vaccination and also provide training to shepherds.

#### **2.1.8.4 Critical gaps and interventions required:**

- Gujarat Sheep and Wool Development Corporation may formulate a scheme for financing medium scale sheep & goat units (50+2) to take sheep & goat rearing on commercial scale.
- Setting up of a slaughter house and wool procurement centre in the district would greatly benefit the shepherds.

**2.1.8.5 Action Points and Issues:** Increased coordination between banks and extension agencies needed.

**2.1.8.6 Doubling of Farm income:** As envisaged by Government of India steps have to be taken for doubling of farmers' income by the year 2022. Sheep and Goat rearing taken up as an allied activity along with subsistence agriculture practiced by small and marginal to enhance the income of the farmer.

**2.1.8.7 Climate Change impacts:** Climate change affects livestock both directly and indirectly. Air temperature, humidity, wind speed and other climate factors influence animal performance: growth, milk production, wool production and reproduction. Animal health may be affected by climate change in four ways: heat-related diseases and stress, extreme weather events, adaptation of animal production systems to new environments, and emergence or re-emergence of infectious diseases, especially vector borne diseases which are critically dependent on environmental and climatic conditions. So training session may be organized on adaptation of rearing practices so as to mitigate effects of climate change.

**2.1.9 FISHERIES DEVELOPMENT****2.1.9.1 Introduction**

Holistic development of fisheries through involvement of fisher community and fish farmers keeping in view the sustainability, bio-security and environmental concern are planned priorities in enhancement of fisheries production from the district. The Inland Fisheries resource of the district are divided into capture and culture fisheries. Capture fisheries refers to exploitation of naturally available resource without much stock manipulation viz rivers, reservoirs and large lakes. Culture fisheries involves inland aquaculture of fish and prawn in small and confined water bodies viz. existing ponds, tanks as also newly confined excavated ponds in water retaining soils. Inland fisheries too are now recognized as a powerful income and employment generating activity as it stimulates growth of numerous subsidiary industries and is a source of protein rich nutritious food, besides being a foreign exchange earner.

The fisheries sector of district has undergone radical changes. While inland resources of district are spread mainly in the inland waters in the form of rivers, canals, ponds, reservoirs, waterlogged areas etc. constitute a bed rock of inland fisheries. There are 40 fisher centres available and around 2038 families are involved in inland fisheries and active fishermen are 1177 only.

The major annual potential, utilization and gaps of the district are as under:

S No	Major sector	Unit	Potential	Utilization	Gap
1	Perennial River fisheries	Quintals	-	-	-
2	Seasonal river fisheries	Tonnes	2	1.5	0.5
3	Inland pond/tank fisheries	Hectares	1544.41	887.67	656.74
4	Inland Reservoir fisheries	Hectares	12870.75	1287.075	75.0
5	New ponds in water retaining soils	Hectares	50	6	44
6	Renovation of low laying ponds	Hectares	-	-	-
7	Fish carp hatcheries capacity	Million	3	0	3
8	Prawn and fish feed mills	Quintals	4	0	4

**Infrastructure and linkage support available, planned and gaps****Availability of infrastructure**

- Fisheries, as an important supplementary activity, is not well developed. To change the situation, not a direct intervention but a gradual understanding among the masses, especially from younger generation, that fish consumption is equally important for human food is required to be developed. Considering the importance and strategic location and cosmopolitan nature of this district, the activity offers ample scope for good growth.
- The Panchayats have now been allowed to lease out ponds to fish farmers for a period of upto 10 year. This should facilitate availment of bank loan and thereby have enough period to generate adequate surplus to service / repay the loans
- The department is assisting for supply of seeds at 50% of the cost to the general category and at free of cost to the SC/ ST fish farmers.
- The Fisheries Department has a fish seed rearing farm at Modasa.
- There are no fish clinic, soil and water testing laboratory, and feed mill in the district.
- There are no refrigerated vehicles for transportation and fish catch is transported by train or private vehicle in ice boxes.
- Specific training programme for upgradation of skills of SF/MF, SHGs/ JLGs on Cage Culture in Reservoirs/ Lakes, Inland Fish Feed Mills, Ornamental Fish Rearing & Breeding Units etc. specific to district be planned by District Fisheries Official with the concurrence of the Directorate of Fisheries to plan & avail financial assistance under NFDB Schemes which had been merged under an Umbrella of Blue Revolution.

- The Schemes of the Department need to be popularized amongst Bankers & Farmers.
- Fish farming can be encouraged in shallow ponds.
- Fisheries Dept. may create awareness about scientific fish farming and its benefits among prospective fish farmers.

### 2.1.9.3 (A) Assessment of Credit Potential for 2023-24

The potential under this sector for the year 2023-24 assessed at ₹280.60 lakh including working capital is given in the below table.

(₹in lakh)

Sr. No.	Activity	Unit (Ha. No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Renovation of old Pond for fish culture	Nos.	3.50	50	175.00	148.75
2	Resv. Fishing tin boat (includg nets)	Nos.	1.50	100	150.00	127.50
	<b>FISHERIES TOTAL</b>			<b>150</b>	<b>325.00</b>	<b>276.25</b>
	WC_F		0.15	29	4.35	4.35
<b>Grand Total Fisheries + WC Fisheries</b>				<b>179</b>	<b>329.35</b>	<b>280.60</b>

Block wise and activity wise potential for the year 2023-24 is given in the Annexure I.

### 2.1.9.3 (B) Assessment of potential for Working Capital (WC) –KCC – Fisheries for 2023-24

As indicated in paragraph 2.1.6.3 (B). The Scale of Finance(SOF) for Animal Husbandry (Dairy, Poultry, Sheep-Goat-Piggery) and Fisheries for this District was fixed in DLTC meeting held on 06.07.2019 as detailed in Annexure V.

Keeping the above in view, Potential for Bank Loan towards WC for Fisheries in the District for the year 2023-24 has been worked out in consultation with the major Banks and Fisheries department of the District as given below:

Sr. No	Type of Activity	Total Nos. in the District*	No. of reckon ed for 01 Unit**	Unit Cost (₹Lakh)**	No. of Units availab le in the District (3)/(4)	% age of Col.(5) for which potenti al for Bank Credit is envisag ed \$	No. of Units which potential for Bank Credit is envisaged (6)x(7)/100	Amount of Bank Loan (₹Lakh ) (5)x(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Fisheries Pond (Ha)	40	1	0.15	40	30	12	1.80
2	Mechanical Boat (Nos.)	26	1	0.15	26	30	8	1.20
3	Manual Boat	31	1	0.15	31	30	9	1.35
	<b>Total</b>	<b>97</b>			<b>97</b>		<b>29</b>	<b>4.35</b>

### 2.1.9.4 Critical intervention required for facilitating definite impacts

The fish production in the district in the year 2019-20 was 786917 Kg consisting of Catla 156632 Kg, Rohu 199848 Kg, Mrigal 193202 Kg and Misc. 247935 Kg. Development of



fisheries in area up to 200 ha is looked after by Fish Farmers Development Agency (FFDA) under 75:25 CSS Scheme and area above 200 ha by Fisheries Dept. There are 10 ice plants with capacity of 87 tons per day. Production of ice was approx. 3000 tons to help storage of fish catch. Modasa and Meghraj are two major Fish production centers in the district. Conservation and protection of the fisheries resources is a major objective of the Gujarat Fisheries Act- 2003.

#### **2.1.9.5 Suggestions / Issues**

##### ***A) Skill development training***

Specific training programme for up gradation of skills of SF/MF/SHGs/JLGs on culture cum capture fishery in small and medium reservoirs and lakes need to be planned by the Commissioner of Fisheries, GOG by availing the financial assistance under NFDB schemes, which have been merged under an Umbrella of Blue Revolution.

##### ***B) Pradhan Mantri Matsya Sampada Yojana ( PMMSY)***

The PMMSY has been approved at a total estimated investment of ₹20,050 crore to be implemented over a period of 5 years from FY 2020-21 to FY 2024-25 The Central share of ₹9407 crore, State share of ₹4880 crore and beneficiaries contribution of ₹5763 crore for the all States/UTs in India. The scheme intends to address critical gaps in fish production and productivity, quality, technology, post-harvest infrastructure and management, modernization and strengthening of value chain, traceability, establishing a robust fisheries management framework and fishers' welfare.

Under PMMSY, the Govt. of Gujarat has a provision of ₹200 crore and GOI will contribute ₹300 crore. Many new activities in terms of farming system and species diversification are emerging. The scope for such activities may be assessed and credit potential may be projected.

- Cage Culture in open large inland water bodies
- Ornamental fish breeding
- Joint Liability Groups (JLGs)/Self Help Groups (SHGs) of fishermen may be organized and financed by the banks. Department may consider drawing up an action plan in this regard.
- Department of Fisheries/Co-operative Society/FFDA should make marketing arrangements and from the payment received out of the sale of fish etc., bank installments should be paid. This assurance of repayment may boost financing in fisheries sector and may be helpful to poor fishermen for availing bank finance.

##### ***C) Fisheries and Aquaculture Development Fund (FIDF)***

The Deptt. of Fisheries, Ministry of Agriculture and Farmers Welfare (MOAFW), GOI created FIDF and its implementation from the financial year 2018-19 to 2022-23, however considering the infrastructure created for the fisher community as also facilitating quality enhancement of the associated fish and fisheries economic activities & employment opportunities under fisheries, it is likely that the FIDF may be extended beyond 2022-23 at appropriate time. Presently the FIDF has a total fund size of ₹7522.48 crore comprising of ₹5266.40 crore to be raised by the Nodal Loaning Entities (NLEs) beneficiaries' contribution of ₹1316 crore and budgetary support of ₹939.48 crore. National Bank for Agriculture and Rural Development (NABARD), National Cooperatives Development Corporation (NCDC) and all scheduled banks are the designated NLEs in disbursement of the fund. The terms of credit under FIDF include a maximum repayment of 12 years inclusive of moratorium of 2 years.

Under FIDF, MOAFW, GOI has urged the coastal States to pay attention to Deep Sea fishing, post harvesting, cage culture and export promotion. FIDF provide concessional finance to the eligible entities, cooperatives, entrepreneurs, fishermen and individuals for development of identified infrastructure by States. The Department of Fisheries, MOAFW, GOI under the FIDF provides interest subvention up to 3% per annum for providing the concessional finance by the NLEs at the interest rate not lower than 5% per annum.

NABARD as one of the Nodal Loaning Entities (NLEs) and have sanctioned ₹1260.28 crores involving 35 projects and disbursed ₹365.70 crores up to 2021-22. Further, 4 proposals worth ₹600 crores received from various Eligible Entities (EEs) as on 20 June 2022 are in various stages of sanction.

#### Present status of FIDF involving NABARD in Gujarat State and potential in district

The Commissionerate of Fisheries, Government of Gujarat has been sanctioned 3 projects viz. Fishing Harbour of Navbandar, Sutrapada and Veraval phase II with term loan of ₹450 crores under FIDF. Further, 1 proposal on development of Fishing Harbour at Madhawad, Gir-Somnath district involving term loan of ₹150 crore is under process in NABARD. The State Govt. may avail funds under FIDF for development of cold storage, fish markets and hatcheries, aquaculture, infrastructure for inland fisheries and other fishery units for Aravalli district.

#### ***D) Doubling of fisher income***

The plans and programmes under PMMSY, FIDF, NFDB, National Fisheries Research Institutions, GFCCA, other cooperative institutions etc. jointly will greatly facilitate banking sector in accelerating credit flow, doubling the fisher income and also capital formation in fishery sector of the district.

##### **2.1.9.6 Other related matters**

- SHGs/SHG Federations may be encouraged to attempt fish culture in Panchayat tanks.
- State Government may subsidize the insurance premium for fisheries.
- The Government may offer special incentives in power and taxes to encourage

### 2.1.10 Farm Credit – Others-Bullocks, carts, two wheelers etc.

#### 2.1.10.1 Introduction

Bullocks and bullock carts are still a major source of farm power in many rural areas of the state. The bullocks serve as a major source of power for traction in agriculture operations, load transportation and other rotary and sundry activities. Bullock carts have been used especially in rural India as primary means of transporting since very early ages. Draught animals (work animals) are the main source of motive power (tractive and rotary) for the majority of farmers. India possessed the finest breeds of draught animals. Bullocks, buffaloes and camels are the major draught animals for field operations. Horses, mules, donkeys yak and mithun are the pack animals for transport. These animals are holistic sources of energy and fit well in the rural system. According to 1991 census there were about 86 million draught animals, which comprise of 76 million bullocks, 8 million buffaloes, 1 million camels and donkeys at pan India level. The horsepower obtained from 1 bullock is equivalent 0.75 H.P. Mechanization in agriculture was to the tune of 20% only whereas 80% of the agriculture/ farm operations were done by bullock drawn implements.

As per 20<sup>th</sup> Livestock census, the population of indigenous male cattle (bullocks) was 18,49,804 in the State, of which 12,17,565 were utilized for agriculture purposes viz. plough animals etc. and 86,226 were utilized for other farming operations viz. bullock carts. With the modernization of agriculture, the use of mechanical power in agriculture has increased but draught animal power continues to be used on Indian farms due to small holdings and hill agriculture. 90% of land holdings are distributed in marginal (below 1 ha) to small (2-4 ha) farm holdings. It covers about 50% of total cultivable land.

Un-mechanized farming is still being practiced in many areas, financing bullocks, bullock carts, camel carts is still considered a necessity. Farmers often neglect the male calves and starve them to death, or more often than not, sell them for slaughter for meat and hides. Considering the relevance of draught animal power in farm activities for small landholders and in hilly areas, Government of Gujarat has formulated some schemes to support bullock rearing. Under compensation for accidental animal death scheme a compensation of ₹15,000 is provided per bullock for maximum 2 bullocks per family.

Providing two wheelers to farmers for commuting between home, farm and market is considered as a farm activity. Banks have launched their own schemes for the two wheelers used for commercial purposes only.

#### 2.1.10.2 Infrastructure and linkage support available, planned and gaps

- Veterinary hospitals, doctors may be made available at more number of gram panchayats.
- Good quality draught animals may be made available for agriculture purpose, through Cattle Fairs, weekly haats, etc.
- Two wheeler dealers, service centres, petrol pumps/oil dealers are available in UT.

#### 2.1.10.3 Assessment of potential for the financial year 2023-24

Potential under this sector for the year 2023-24 has been assessed at ₹10572.80 lakh. as given in the following table.

Sr. No.	Activity	Unit (Ha. No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Bullocks	1+1 Unit	0.50	215	107.50	86.00
2	Bullock carts	1 Unit	0.60	230	138.00	110.40
3	Motor cycle to Farmers	Nos.	0.70	5565	3895.50	3116.40
4	Misc. Agri. Advances	Nos.	5.00	1815	9075.00	7260.00
<b>Total Others</b>				<b>7825</b>	<b>13216.00</b>	<b>10572.80</b>

(₹in lakh)

**2.1.10.4 Critical interventions required for creating a definitive impact**

- Events like Krishi Mahotsav have increased the awareness among the farmers about the new and mini farm implements, thus, the demand for such miscellaneous items has grown in the district.
- The Banks, Agriculture Department and Animal Husbandry department need to push these activities for the small and marginal farmers as also the landless farmers for earning additional income out of maintaining and using these resources for farm and off-farm activities.

**2.1.10.5 Suggested Action Points:**

- Banks, Agriculture Department and Animal Husbandry need to consider these activities for the small and marginal farmers as also the landless farmers for earning additional income out of maintaining and using these resources for farm and off-farm activities.
- Banks may finance low cost Bullock carts in remote villages for transportation of agriculture produce from villages /farms to markets at the block/taluka level.

**2.1.10.6 Other Related Matters**

Quality animals and durable/sturdy carts to carry higher load may be made available.

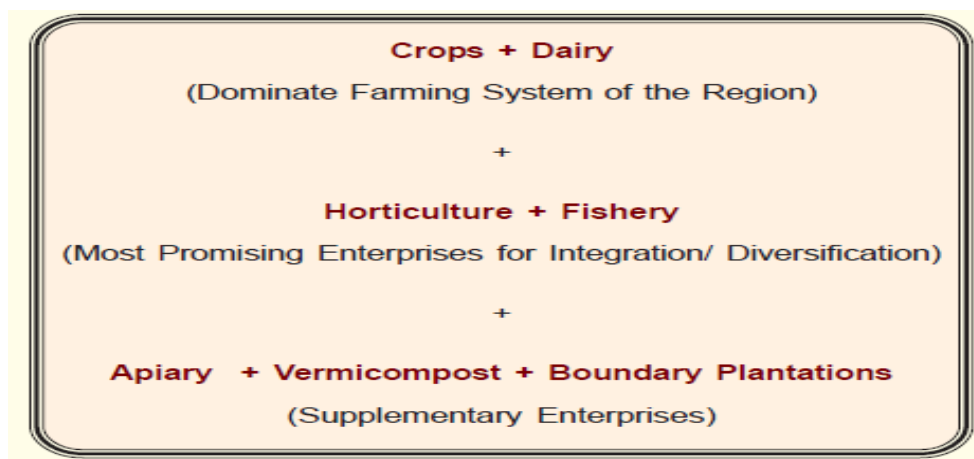
## 2.1.11 Integrated Farming System

### 2.1.11.1 Introduction

Indian agriculture is bestowed with combination of crop + livestock in the farming system. The integrated farming systems are not new to India as natural integration of components in the form of mixed systems namely, crop+dairy, crop+dairy+fishery, crop+goatary+poultry, crop+fishery etc. are present and dominant in many parts of India. However, due to natural integration, complementarity among components or enterprises could not be maximized leading to low productivity and profit from these systems. Migration of family members especially from marginal and small farmers for want of employment during the lean season happens frequently in many parts of country due to the inherent nature of low profitability from the naturally integrated systems. Further, due to lack of proper complementarity in the existing systems, farmers depend far more on market inputs for crop and livestock production, which again contributes for higher production cost. In order to overcome the above lacunae in the present system, Integrated Farming systems with location specific need based integration of components/enterprises are essential to meet the basic objectives of IFS. Integration of components such as crops, horticulture, dairy, poultry, goatary, aquaculture, apiary etc. can be done for improving the production, profitability, employment and nutrition in a sustainable way.

**An Integrated Farming System (IFS)** is defined as “a judicious combination of two or more components using cardinal principles of minimum competition and maximum complementarity with advanced agronomic management tools aiming for sustainable and environment friendly improvement of farm income, family nutrition and ecosystem services”. Assessment of farm incomes indicate that diversified farms with more than two enterprises get twice the income than those with two or less enterprises. Scientifically designed IFS with minimum competition and maximum complementarity are essential to achieve multiple goals.

### Component Enterprises of IFS Model



The various components of IFS are crops, live stocks, birds and trees. The crops may have subsystem like mixed/intercrop, multi-tier crops. The livestock components may be milch animals, goat, sheep, poultry and the tree components include fruits, timber, fuel and fodder. The major factors which need to be considered in choosing an IFS model are soil type, rainfall, its distribution and length of growing season.

The advantages of IFS are indicated below:

- Soil fertility and productivity enhancement through organic waste recycling and increased sustainable farm income

- Integrated farming system shall meet the energy and timber needs of rural households and also timber needs of construction sector in a cost effective manner.
- Higher food production to equate the demand of the exploding population
- Sustained income throughout the year

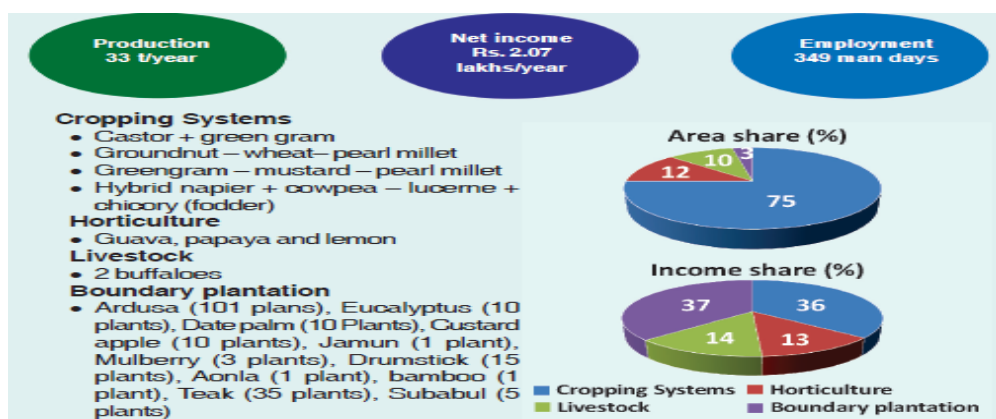
The various components of IFS are crops, live stocks, birds and trees. The crops may have subsystem like monocrop, mixed/intercrop, multi-tier crops of cereals, legumes (pulses), oilseeds, forage etc. The livestock components may be milch animals, goat, sheep, poultry, bees and the tree components include fruits, timber, fuel and fodder. The IFS components and their composition may vary with irrigation water availability viz., irrigated / rainfed/ irrigated – dry (ID) conditions and also vary with category of the farmer (SF/MF, medium and big farmers). The major factors which need to be considered in choosing an IFS model are soil type, rainfall, its distribution and length of growing season. There is a need for evolving appropriate farming systems for diverse agro-ecological situations.

#### 2.1.11.2 Policy Support

The State Government, under various schemes, supports distribution of seeds, implements, etc. through the District Agriculture and Horticulture Departments, as also has subsidy schemes to support investment in agriculture and horticulture activities. In Gujarat, Integrated Farming System Project has one main center at Sardarkrushinagar Dantiwada Agricultural University, Banaskantha and two sub centers at Junagadh Agricultural University and Navsari Agricultural University conducting On Station Research. Similarly, guidance and capacity-building support is available to the farmers through the Agriculture Extension Department at district level, ATMA and KVKs in their respective areas.

#### 2.1.11.3 State / District specific IFS models

Indian Institute of Farming Systems Research (IIFSR), Modipuram and other ICAR institutions have developed 51 integrated farming systems suitable to marginal and small holders of 25 States/UTs of India, including Gujarat. These State-specific IFS models are available at the link given here. <http://www.iifsr.res.in/sites/default/files/progfiles/BulletinIFSJuly2020.pdf>. The location specific IFS models were also evolved by SAUs. The credit potential for IFS is projected under respective sectoral chapters. An IFS model for Gujarat prescribed by SDAU is represented below.



**2.1.11.4 District IFS Models :** Farmers in the district have been traditionally practicing crop husbandry along with dairy farming. There is a huge demand of milk in Aravalli and nearby area. The Crop System (Maize, Paddy, Tuvar, Soybean), Horticulture (Mango, Guava), Dairy (2 Buffaloes) and Boundary plantation (Ardusa, Ber) model of Integrated Farming System (IFS) is recommended for the district.

Type No.	Kharif Crops	Rabi Crops	No. of animal	Horticulture crops	Boundary plantation
1 ha model comprises	0.50 ha of land for all kharif crops	0.50 ha of land for all rabi crops	NA	0.20 ha of land for all horticulture crops	0.10 has land for boundary plantation

#### 2.1.11.5 Issues and Suggestions

- i) Finance for various components of IFS simultaneously and parallelly is not forthcoming. Also the marketable surplus with SF/MF may be small and therefore needs aggregation.
- ii) Anand Agriculture University may work out and test IFS models as per the requirements of small and marginal farmers.
- iii) Initiation of Mission on Integrated Farming Systems in the district by converging various schemes of crop husbandry, horticulture, livestock, and fisheries can give impetus to integrated farming systems approach.
- iv) Banks may explore possibility of financing IFS models in cluster mode.

## CHAPTER 2.2

### Agriculture Infrastructure

#### 2.2.1 Construction of storage and Marketing Infrastructure (warehouses/godowns, market yards, silos, cold storage units/ cold chains)

##### 2.2.1 Introduction

Storage is an important marketing function, which involves holding and preserving goods from the time they are produced until they are needed for consumption.

- The storage of goods ensures a continuous flow of seasonal goods in the market.
- It helps in the stabilization of prices by adjusting demand and supply, prevents distress sale by farmers;
- Storage promotes grading of produce, standardization and quality control
- Storage protects the quality of perishable and semi-perishable products from deterioration by reducing post-harvest & handling losses
- Storage promotes pledge financing and market access.
- Construction and maintenance of storage structures provides employment and income

The different types of scientific storage structures are as follows:

1. Warehouses/Godowns- Covered buildings for storing produce, agri inputs such as fertilizers, pesticides etc
2. Market Yards – Mandi where assembling, grading sale and purchase of agricultural produce is performed.
3. Silos – Vertical storage structures used for storing food grains
4. Cold Storage Units/Cold Chains- Temperature controlled structures and transport equipment for storing and distributing perishable produce

##### 2.2.2 Infrastructure and Linkage Support Available, planned and gaps

1. Grameen Bhandaran Yojana (GBY) was constituted by GoI under NABARD in the year 2001 with an aim to reverse the declining trend of investment in agriculture sector by encouraging private and cooperative sector to invest in the creation of storage infrastructure for the development of the agriculture sector. Over the years, GBY has been instrumental in development of existing storage and warehousing infrastructure. Under GBY 146 godowns were constructed with the 29400 MT.
2. The Warehousing Development and Regulatory Authority (WDRA) was constituted in the year 2010 under the Warehousing (Development and Regulation) Act, 2007 with an aim to promote orderly and targeted growth of the warehousing business. In Aravalli 2000 MT warehouse created.
3. Farmers depositing their produce in the accredited warehouses are provided with a NWR (Negotiable Warehouse Receipt) which can be used as a collateral to avail bank finance. This gives farmers the much needed marketing freedom allowing them to achieve higher remuneration for their produce. The ushering in of IT backed e-NWR (Electronic NWR) which creates a centralized digital repository of stored produce seeks to bring in transparency in warehousing transactions.
4. The integration of e-NWR on the e-NAM portal allows farmers to remotely sell their warehoused produce online at any mandi.
5. RBI has enhanced loan limit per borrower under e-NWR from ₹50 lakhs to ₹75 lakhs under priority sector lending norms. This shall lead to faster adoption of warehousing and scientific storage by farmers.
6. Despite a year ravaged by COVID-19 pandemic, agriculture and rural sector came out as the bellwether sector of the Indian economy. With high growth rates seen in sub-sectors of food processing, fisheries, the demand of warehousing infrastructure is bound to go up on the back of higher exports as well as retail consumption.



7. The pandemic has led to significant growth of businesses operating on Inventory based marketplace model which works on stockpiling of produce. This creates huge potential for warehousing to develop.
8. The setting up of Agriculture Infrastructure Fund with a total corpus of ₹1 lakh crore will channel flow of funds for creation of post-harvest management infrastructure and community farming assets through interest subvention (3% per annum) and credit guarantee (under CGTMSE for loans up to ₹2 Crores).
9. The 3 farm laws that were enacted in 2020, [namely The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, The Essential Commodities (Amendment) Act and The Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act] are a set of path breaking reforms that can revolutionize the agriculture sector by creating One-Nation-One-Agriculture Market. The laws open up the doors for corporate farming as well as providing farmers freedom to sell their produce anywhere in the country.
10. Availability of land, entrepreneurial mindset, skilled workforce in creation and maintenance of godowns is essential for ensuring success of warehousing.
11. Good transport connectivity through land, air and sea routes creates potential for enhancement of intra and international trade. The coming up of National Infrastructural Pipeline, Dedicated Freight Corridor seeks to enhance existing transport capacity.
12. Coming up of Mega Food Parks on hub and spoke model in the state seek to integrate value chains. Backward linkage necessitates development of storage and warehousing infrastructure.
13. The enhancement of MSPs by the GoI creates potential to usher in prosperity for the farmer. Now farmers shall have higher loan to value.

### 2.2.3 Assessment of credit potential for 2023-24 (physical and financial terms)

Assessment for the year 2022-23 has been made at ₹3,698.88 lakh. The block-wise, item wise details have been indicated in the Annexure –I.

(₹in lakh)

Sr. No.	Activity	Unit (Ha. No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Cold Storage units	Nos.	5.50	48	264.00	211.20
2	Market / sub yards	Nos.	240.00	12	2880.00	2304.00
3	Rural Godowns 300MT*7600	Nos.	20.55	72	1479.60	1183.68
<b>Storage Godown Marketyard Total</b>				<b>132</b>	<b>4623.60</b>	<b>3698.88</b>

### 2.2.4 Critical intervention required for creating a definitive impact

This shall be based on the issues identified under infrastructure paragraph and resource endowment of the district. Some illustrated interventions are as below:

- a) All godowns above 1000 MT capacity need to be registered with Warehousing Authority after due accreditation. Legal provisions have been made. There is need for creation of awareness.
- b) Negotiable warehouse receipt system may be encouraged, as this will reduce distress sale immediately after harvest.
- c) The recently launched e-NAM portal facilitates marketing and price discovery of agricultural produce to reduce uncertainty in prices. The portal integrates individual farmers, FPOs and other farmer institutions across the entire nation into one common marketplace.

- d) Mega Food Park Scheme can promote food processing, warehousing and better reach to the markets.

### **2.2.5 Suggested Action Points:**

- Agencies /institutions are to be specified who would implement the actions suggested especially those are integral to achieving the potentials so mapped.
- There is need for creation of awareness among the entrepreneurs and farmers regarding the Negotiable Warehouse Receipt System and availability of pledge loan facility in the district.
- Accreditation of warehouses to Warehousing Development and Regulatory Authority (WDRA) for issuing Negotiable Warehouse Receipts may be ensured. NABARD Consultancy Services (NABCONS) is also facilitating the same as an accreditation agency.
- Farmers may form Producer Groups to aggregate their inputs and produce to leverage economies of scale. e-NAM registration may be facilitated to bring in efficient price discovery.
- Banks to encourage pledge loans to avoid distress sale of agricultural produce. Awareness on warehouse receipts issued by accrediting agency will facilitate access to pledge loans.
- Under the Salient features of Model Contract Farming Act, 2018:
  - Contracted produce is to be covered under crop / livestock insurance in operation
  - Contract framing to be outside the ambit of APMC Act.
  - Farmers can now market their produce outside the purview of designated APMCs

### **2.2.6 Other related matters**

- Banks may finance good quality bullocks in the district to sustain the programme.
- The transport activity by bullock carts needs to be encouraged in industrial and business areas apart from remote villages, contrary to the existing practice.
- The Department of AH should take up breed improvement programme as well male calf rearing.
- Financing advanced tilting carts will help to carry more loads with less strain.

## **2.2.2 Land Development, Soil Conservation & Watershed Development**

### **2.2.2.1 Introduction**

Land Development activity aims at making land suitable for sustainable agriculture, preventing the soil erosion, leading to improvement in soil productivity and fertility through various measures. Unsustainable use of land, including imbalanced use of chemical fertilizers, leads to land degradation, which necessitates substantial investment in land development activities for improvement in chemical and biological properties of soil.

Aravalli is a drought prone district. It falls under North Gujarat agroclimatic zone and is endowed with sandy loam to sandy soils. These soils are low in Nitrogen, medium in Phosphorus, medium in Potassium, medium in Sulphur adequate in Zinc, moderately deficient in Magnesium and high deficiency in Iron.

Dugwells and borewells are major source of groundwater. As per the stage of groundwater development, the entire district is classified as safe. However, high level of nitrate and fluoride in ground water is a matter of concern.

Depending on rainfall, topography, agro-climatic zone, soil, source of ground water, stage of development of ground water, quality of ground water and cropping pattern of the district, land development sector encompasses the following sub activities

- On farm development works - Land levelling, bunding , trenching
- Land Reclamation - Tank silt application and organic manures
- Water Management – lining of field channel and farm ponds
- Watershed Development – field level activities- bunding and trenching

Gujarat State Watershed Management Agency (GSWMA), the State Level Nodal Agency in partnership with technical institutions like Agricultural Universities, Krishi Vigyan Kendra etc and social enterprises such as NGO, Academic institutions like IRMA, NID, NIFT, EDII etc. is implementing the Integrated Watershed Management Programme (IWMP) in Gujarat by undertaking capacity building of all stakeholders and preparing an appropriate strategy to execute the plans in a time bound manner .

### **2.2.2.2 Infrastructure and linkage support available, planned and gaps**

- Enabling conditions like technical expertise, machinery, labour and supervisory staff for implementing land development activities are existent in the district
- There are 3 soil testing laboratories in Aravalli district, which are operated by APMC Bhayad, APMC Bhiloda and APMC Dhansura
- Soil health cards are issued to farmers based on soil testing under National Mission for Sustainable Agriculture to encourage balanced use of fertilizers
- Credit potential exists for post watershed treatment activities in areas where watershed has been implemented.
- GOI extends subsidy to farmers for soil and water conservation measures like bunding, trenching, farm ponds under National Mission for Sustainable Agriculture
- NABARD is implementing Navagam watershed in Meghraj block with Asha Deep Foundation as implementing agency. Capacity Building Phase(CBP) was successfully completed in Navagam watershed
- NABARD will be extending concessional refinance for 5 years in its ongoing and recently completed watershed based on banking plan.
- In view of large area under open well and bore well, credit potential exists for On Farm Development (OFD)works like Land levelling.
- Given that sandy loam, sandy soils are the major soil types in Aravalli, credit potential exists for land reclamation through tank silt application
- Farm ponds are viable solution for water security besides improving ground water quality.

- Field channel is a potential activity for safe conveyance of rain water for recharging open wells and bore wells

### 2.2.2.3 Assessment of Credit Potential for 2023-24

The projection for land development activities is estimated at ₹1695.18 lakh as is given in the following table.

(₹in lakh)						
Sr. No.	Activity	Unit (Ha. No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Land Reclamation	Nos.	0.77	890	685.30	548.24
2	Bunding and Trenching as field level Soil and water conservation activities	Nos.	0.21	638	133.98	107.18
3	OFD - Land Levelling	Nos.	0.29	631	182.99	146.39
4	Lining of Field Channel 100m/ Ha	Nos.	0.27	497	134.19	107.35
5	Farm Ponds as Water Harvesting structures( 20Mx20Mx1.5M)	Nos.	0.77	1276	982.52	786.02
<b>Land Development Total</b>				<b>3932</b>	<b>2118.98</b>	<b>1695.18</b>

### 2.2.2.4 Critical interventions required for creating a definitive impact

- A major portion of land was washed out in heavy rains and floods in 2017, with sand from rivers destroying the fields, particularly in Bhiloda & Meghraj. This land needs to be redeveloped for farming purpose
- Creation of awareness among the farmers about land development activities by extension service agencies like ATMA and KVK
- Motivation of farmers to undertake water management activities like lining field channel, farm pond for improvement along with cropping system of pulses millets and oil seeds for improvement in water use efficiency, cropping intensity and income security
- Coordination between banks and government agencies about providing technical and credit support to individual farmers for land development and water management activities in forums like BLBC and DLCC
- Extension of bank credit in those areas where watersheds projects are being implemented through close interaction with the implementing government departments and NGOs.
- Promotion of land levelling, bunding, trenching, lining of field channel and farm ponds through bank credit

### 2.2.2.5 Suggested Action Points

- Creation of awareness amongst farmers about soil testing and Facilitation of interpretation of soil test results by KVK, Farmers Training Centre(FTC) and ATMA.
- Farmers should be encouraged to undertake water harvesting structure like farm ponds for harvesting rain water and recharge of ground water in Sandy loamy soils of Aravalli district.
- Focused research on integrated farming system for sustainable land use and income security for farmers

### 2.2.2.6 Other related matters

Through proper management of land, productivity and fertility can be enhanced, leading to quality produce. Farmers need to be motivated for getting soil tested once in 2 years for balanced use of fertilizers, leading to reduction in cost and soil health improvement. KVKs and Sardarkrishinagar Dantiwada Agriculture University(SDAU), to create awareness and conduct demonstration on Nano Urea for adoption of Nano Urea by farmers, leading to judicious use of Nitrogen fertilizers, cost advantage and reducing ground water pollution.

Farmers should be encouraged to construct Rain Water Harvesting structures in their fields with lining in sandy loam soils of Aravalli district to avoid heavy percolation and seepage losses in order to provide life –saving irrigation and take up short duration crops.

### 2.2.3 AGRICULTURE INFRASTRUCTURE –OTHERS

#### 2.2.3.1 Introduction.

1. Advances in Agricultural Biotechnology involves development of genetically modified crops with qualities such as being drought-resistant, disease resistant, higher nutritional content, and development of biological pesticides and bio-fertilizers- in effect leading to higher and more stable crop yields.
2. These technologies include plant-breeding, tissue-culture, and various ways of genetic-engineering. Agriculture biotechnology can thus address the growing stress on food-production and special challenges faced by small and marginal farmers, especially those living in tough climatic conditions.
3. To engender the gains of increased agriculture productivity to both consumers and producers in a fair manner, it is vital to strengthen forward linkages in agri-supply chain. **e-NAM-** the pan-India electronic trading portal which networks the existing APMC Mandis to create a unified national market for agriculture commodities- will help in better price-discovery for farmers.
4. In terms of revised Priority Sector Guidelines, issued by Reserve Bank of India, investments such as Tissue culture labs, seed production units, Bio fertilizer / bio-pesticide units, vermi-compost units, etc. have been classified as '**agriculture infrastructure items under agriculture credit**', **thus helping in facilitating greater availability of credit for these activities**. National Horticulture Board, Government of India (NHB) has its Gujarat Office at APMC, Jamalpur, Ahmedabad. It provides a plethora of incentives for establishing of infrastructure and facilitate development of horticulture. Back-ended subsidy in the project cost is also provided from 20% of project cost upto a maximum of ₹25 lacs, and the spectrum of components include biotechnology tissue culture, bio-pesticides, horticulture ancillary units etc.

#### Technologies:

- **Seed Processing:** Seed processing is a crucial step in refining post-harvested seed to its purest form for replanting purposed and human/animal consumption. Seed cleaning and Seed treatment are both important facets of seed processing. Bio-Agriculture techniques yield better results than traditional techniques while maintaining the stability and fertility of soil. High yielding seeds significantly enhance the productivity potential and provide resistance from adverse environmental stress such as droughts and salinity.
- **Tissue Culture:** Tissue culture is a technology for rapid propagation of plants using tissue of selected mother plants with desirable traits wherein large no of true to type plants can be produced under controlled conditions in Laboratory. Some of the advantage of using the technique of tissue culture are that there is production of exact copies of plants that have desirable traits; disease and pest free planting material; ability to produce mature plants; regeneration of whole plants from plant cells that have been genetically modified and possibility of rapidly studying the molecular basis for physiological, biochemical and reproductive mechanisms in plants and also of large scale production of artificial seeds through somatic embryogenesis.
- **Agriculture biotechnology** encompasses a range of scientific tools including genetic engineering, to different aspects of agriculture in order to create, improve/modify plants, animals and microorganisms. It has emerged as a new source of genetic diversity for crop improvement and has led to the development of drought tolerant crop varieties. The thrust areas of Gujarat biotechnology industry include health, pharmaceuticals, agriculture biotechnology, industrial enzymes and bioinformatics. While **Valsad has become India's first integrated horticulture district**, Kaira, Vadodara, Bharuch and Surat districts are the main contributors to the agricultural production of the State. A few of the leading corporates in agri-biotech in the State are Advanta India, Bayer Crop sciences, Gujarat Life sciences Pvt, KN Biotech and GNFC. For facilitating the development of biotechnology in the State,

Government of Gujarat has constituted **Gujarat State Biotechnology Mission**, under the aegis of Department of Science and Technology. **Gujarat Agricultural Biotechnology Institute**, Surat (affiliated to Navsari Agricultural University) has been founded with target to promote the career goals of students in agri-biotechnology and strengthen the linkages of academic with industry.

- **Vermi-compost**-. Vermicomposting is an excellent method for recycling the farm wastes and cow dung into valuable organic manure. Promotion of Vermi Compost is linked to the overall aspiration of encouraging organic farming practices.
- **e-NAM: Gujarat State Agricultural Marketing Board** is the implementing agency of e-NAM. Apart from being a pan-India electronic trading portal, e-NAM provides **single-window service for all APMC related information and services, such** as commodity arrivals and prices, buy and sell trade offers etc. Farmers can access the information on e-NAM easily through their mobile phones from anywhere. However, for volumes on e-NAM to rise, its acceptability has to hugely increase among the farmers and traders and also training is required to enable them to use the electronic platform smoothly. Nevertheless, inter-state trading of agri-items on e-NAM has gained momentum and in the first use of e-NAM in Gujarat, Palanpur mandi of Gujarat sold green gram to Sumerpur mandi of Rajasthan.
- **Organic Farming** that would primarily focus on creation of an eco-system that can achieve sustainable productivity without use of artificial external inputs such as chemical fertilizers and pesticides. The demand for organic foods is rising, especially among the affluent sections of society. Since a significant portion of area in Gujarat is rain-fed, it is well-suited to organic farming. Gujarat Government has also laid foundation to setup the first organic farming university in Vadodara and has a well-laid down policy to promote organic farming in the State.

### 2.2.3.2 Infrastructure and linkage support available, planned and gaps

- Krishi Vigyan Kendra located at Khedbramha has 14.20 Ha of cultivation farm for technology testing and demonstration through which KVK provide various extension services to the farmers. In addition to 01 soil testing laboratory located at Modasa Soil Testing labs of GSFC, IFFCO and GNFC are also providing free services to the farmers. One mobile Soil testing laboratory is also operating and is run by NGO – DSC in the district.

### 2.2.3.3 Assessment of potential for the financial year 2023-24

Assessment for the year 2023-24 has been at ₹20617.02 lakh. The block- wise, item-wise details have been indicated in Annexure I.

Sr. No.	Activity	Unit (Ha. No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Tissue Culture Labs	Nos.	100.00	34	3400.00	2550.00
2	Seed Production Unit	Nos.	30.00	110	3300.00	2640.00
3	Bio Fertilizer / Pesticide	Nos.	63.00	326	20538.00	15403.50
4	Vermi Compost Unit	Nos.	0.35	84	29.40	23.52
<b>Total Others Agriculture Infrastructure</b>				<b>554</b>	<b>27267.40</b>	<b>20617.02</b>

### 2.2.3.4 Critical Interventions required for creating a definitive impact:

- A good number of licensed fertilizer sale points are available across all 8 blocks being operated by Cooperatives, Agro Service Centres, Company Depots and Private Entrepreneurs.
- The district has got APMC in 8 blocks which can be utilized as sale points of organic manure/ pesticides.

#### **2.2.3.5 Suggested Action Points:**

- There is need to demonstrate the use of biotechnology at research farm level as well as field trial levels and organize exposure trips for farmers to understand the impact of biotechnological interventions for better yield and sustainability. (Action : KVK/ATMA/State Govt/NABARD)
- There are a number of private seed growers and dealers. There is urgent need of better tie up arrangements with these seed growers and dealers and regular dialogue should be started by district Agriculture Department for betterment of this sector.
- Bio-fertilizers production plants to be set up and supported to meet the growing demand of bio-fertilizers from farmers. Simultaneously, there is a need undertake programmes on information dissemination on utilization of Bio-fertilizers and Bio-pesticides for empowering the farmers.
- Bankers have been financing Seed Production units. However, there is a need to promote finance applied research through contract research so as to develop better varieties of onion, chillies, soybean, cotton with longer fiber-strength and drought tolerant semi-arid cereals, fodder etc.

#### **2.2.3.6 Other Related Matters**

- More use of organic farming/ vermi compost needs to be encouraged to increase the productivity while retaining the fertility of the land.
- Arrangement of marketing facilities for organic farming products needs to be done so as to motivate more number of farmers for adoption of organic farming.
- Creation of awareness amongst farmers for harmful effects of excessive chemical fertilizers is the need of the hour. KVK, Farmers Training Centre and DAO need to initiate necessary action for the same.

## **2.3 Agriculture Ancillary Activities**

### **2.3.1 Food and Agro-processing**

#### **2.3.1.1 Introduction**

Food processing industry in Gujarat is increasingly seen as potential source for driving the Gujarat economy. A well-developed food processing industry is expected to increase the farm gate prices, reduce wastages, ensure value addition, promote crop diversification and generate employment opportunities for unskilled, semi-skilled and skilled manpower as well as export earnings. It brings about synergy between consumers, industry and agriculture community. In addition to it, a large middle class, increasing income, growing trend of nuclear family, change in eating habits, globalization, opening of markets provide conducive environment for food processing. It has been observed that consumers are spending more than 30% of their income on food products. Food processing has been identified as one of the sunrise sector. It is also a major employment provider, contributing to 11.4 per cent of organized manufacturing employment.

Gujarat is leading State with impressive agriculture performance contributing about 14.2% to the States GVA. The State has identified Agro and Food Processing industries as one of the thrust industries in Industrial Policy for 2020. The State has also identified 'Development of agro & food processing clusters and establishment of integrated food processing parks to cater value chain' as a strategic intervention under the implementation roadmap of 'Strategy for Government of Gujarat to enable India to become a USD 5 trillion economy'. Food processing sector is also a major driver of State's exports and contributing more than USD 5 billion to the exports income.

Ministry of Food Processing Industries (MoFPI), GoI, is implementing various schemes through banks. Gujarat Agro Industries Corporation (GAIC), Government of Gujarat has been appointed as nodal agency by MoFPI for the state of Gujarat. Small and suitable activities related to fruits and vegetables post-harvest management are also being supported by Government of Gujarat through the portal **i-Khedut** for a centralized distribution of subsidy. Thus, the bank loan requirement may also increase due to such initiative.

#### **2.3.1.2 Infrastructure and Support Services**

Food processing is a link between primary sector (agriculture) and secondary sector (manufacturing). Therefore, in addition to general infrastructure facilities like power, water, transport, the infrastructure like storage/ warehousing, silo, cold storage & cold chain, APMC markets for raw material availability, quality control laboratories, machinery and equipments play an important role in growth and development of the food industry. The growth of this sector requires support services of licensing agencies, training and skill development institutes, marketing and branding services, etc.

A brief status of Gujarat's Food Processing Industry is as under

- More than 30,000 food processing units are operating in Gujarat providing employment to over 1 million people.
- Under the Agri-Export Zones scheme of Agricultural and Processed Food Export Development Authority (APEDA), the state government has earmarked Agriculture Export Zones for mangoes and vegetables (Ahmedabad to Valsad) and for value-added onions (Saurashtra).
- Ministry of Food Processing Industries (MoFPI) has awarded Final approval to 02 Mega Food Parks projects in Surat & Mehsana and 05 Agro Processing Cluster in Banaskantha, Kutch, Daman, Bhavnagar and Navsari district. MoFPI has also accorded In-principle approval to Adani Ports for setting up of Special Economic Zone Ltd.
- A total of 28 cold chain projects have been approved by the Ministry in Gujarat and these Projects are being implemented under MoFPI assistance



### 2.3.1.3 Assessment of Credit Potential for 2023-24

Food Processing potential in Gujarat State is broad-based covering almost the entire spectrum of “food”, as outlined below:

- Agri / Horticulture Infrastructure Projects: Onion Cold Storage, Fresh Fruits-Pack house, Vegetables-Pack house, Mechanized Grain handling and storage at port, Food Parks, Terminal Markets, Spices and Isabgul Irradiation center.
- Export Oriented Processing: Peanut Butter, De-hulled Sesame seed & Roasted Sesame oil, Roasted, salted & coated nuts, Integrated Shrimp farming & processing.
- Value added Processing based on local resources: Tomato, Potato Flakes & Powder, Specialty grades- Guar Gum powder, Refined Sugar, Egg Powder, Baker's Yeast, Fish oil extraction.
- Natural Resources based Opportunities: Natural food colors, Medicinal Herbs extraction, Neem / Tobacco Oil base Bio-Pesticides, Food Processing Enzymes, and Fish meal base bio-fertilizer.
- Newer Technology Base Projects / Opportunities: Spices Cryo grinding, Freeze Dried Fruit processing Unit, Instant Vegetables in Retort Pouches, Potato Fabricated Chips.
- Innovative Opportunities: Organic Milk & Milk Products, Ice Cream Balls, Castor Derivatives base Perfumery raw materials, Banana Fibre extraction and Textiles production.

As per the revised priority sector guidelines, loans for food and agro-processing up to an aggregate sanctioned limit of ₹100 crore per borrower from banking system shall be classified under Agriculture – Ancillary activities. The raw material availability is the key requirement for projecting the potential for any food processing unit. Assessment of marketable surplus available for processing needs to be kept in mind while assessing potential for fruit and vegetable products, milk & milk products, meat, fish and marine products. Food grains, pulses, and spices need to be processed before consumption. Therefore, potential for setting up rice mill, flour mills, Dal mills, spice powder making units, etc. are there based on local consumption, demand and food industry scenario of the State. Creation of clusters is gaining momentum because they are increasingly considered as viable option for improved productivity of produce suitable for processing and export development. It is not possible to use standard unit cost for food processing industries. However, one can follow MSME guidelines for food processing units complying with the following MSME criteria detailed in Chapter - 3.

Assessment has been made at ₹4105.50 lakh . The block-wise, item-wise details have been indicated in the Annexure I.

(₹lakh)

Sr. No.	Activity	Unit	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Flour Mills	Nos.	50.00	49	2450.00	1960.00
2	Mini Rice Mill Unit	Nos.	3.50	49	171.50	137.20
3	Mini Dal Mill unit	Nos.	5.00	111	555.00	444.00
4	Oil Mills-( Only Refilter &Packing)	Nos.	5.00	49	245.00	196.00
5	Potato wafers	Nos.	3.00	27	81.00	64.80
6	Fruits (Pulp Chutney etc.)	Nos.	4.00	14	56.00	44.80
7	Vegetables value addition unit	Nos.	3.00	16	48.00	38.40
8	Lime & mango Pickle Unit	Nos.	7.50	18	135.00	108.00
9	Bakery Unit	Nos.	6.00	27	162.00	129.60
10	Farsan, Namkeen making Unit	Nos.	4.00	23	92.00	73.60
11	Spice processing Unit	Nos.	5.00	22	110.00	88.00
12	Working Capital	Nos.	25%		821.10	821.10
<b>Food &amp; Agro Processing Total</b>				<b>405</b>	<b>4926.60</b>	<b>4105.50</b>

#### **2.3.1.4 Critical interventions required for creating definitive impact**

- There are no arrangements for processing of fruits, vegetables/potato/tomato etc. in spite of huge number of godowns available, during the time of bumper crops (potato, groundnut), the district faces shortage of storage space.
- Multi chamber cold storages to be established to increase shelf life of horticulture produce.
- Cluster approach may be adopted for specific commodities like potato grown exclusive in and around Deesa, cumin in and around dry lands of Tharad, to enable value addition.

#### **2.3.1.5 Suggested Action Points :**

- Food processing needs to be strengthened to create demand for agricultural produce, cut down or eliminate post-production losses and provide value added products. Investment in food processing, would lead to a higher realization to farmers as this would generate additional demand for farm products as well as create employment opportunities in the non-farm sector.
- Banks should extend finance for Food & Agro Processing industry which has been declared a thrust area for export promotion and value addition.
- DIC and Horticulture Dept. may encourage and guide entrepreneurs for setting up of such units. A coordinated and participatory approach is required to be adopted by financing banks/ State Government Depts. and various development agencies to create conducive environment for proper harnessing of resource endowment of the district by ensuring enhanced credit flow to Agro and Food Processing Sector.
- REDPs focusing on preliminary value addition activities/skills may be organized for educated rural youth for increasing food processing and agro processing activities in the district.
- Awareness programmes on feasibility of agro-processing and value addition may be undertaken in respect of subsidy assistance available through MOFPI.
- Promotion of Farmers' Producers Organization to aggregate and market the produce after preliminary processing.

#### **2.3.1.6 Other related matters**

**North Region Gujarat- Scope :** Being the hotspot for spices and medicinal plants like Cummin seed, Saunf, Chilly, Coriander, Isabgol, Castor and horticulture crops like Potato, lemon, etc., the region offers much scope for organized approach and export of the commodities including value addition.

### 2.3.2 - Agricultural Ancillary Activities - Others

#### 2.3.2.1 Introduction

Agricultural ancillary activities have unique credit needs which needs to be addressed by financial institutions. Towards fulfilling these needs RBI through its Master Directions FIDD.CO.Plan.BC.5/04.09.01/2020-21 on 'Priority Sector Lending' has declared that, Loans to Primary Agriculture Credit Societies (PACS) by banks, loans to Micro Finance Institutions (MFIs) for on-lending in agriculture sector, Loans under Agri Clinic and Agri Business Center (ACABC) scheme are included in other ancillary activities of agriculture. Under ancillary activities, the following activities are considered:

- i. Loans up to ₹5 crore to co-operative societies of farmers for disposing of the produce of members.
- ii. Loans upto ₹50 crore to Start-ups, as per definition of Ministry of Commerce and Industry, GoI that are engaged in agriculture and allied services.
- iii. Loans for setting up of Agriclincs and Agribusiness Centres. (ACBC)
- iv. Loans for Food and Agro-processing up to an aggregate sanctioned limit of ₹100 crore per borrower from the banking system.
- v. Loans to Customer Service Units managed by individuals, institutions or organizations who maintain a fleet of tractors, bulldozers, well-boring equipment, threshers, combines etc., and undertake farm work for farmers on contract basis.
- vi. Bank loans to Primary Agriculture Credit Societies (PACS), Farmers' Service Societies (FSS) and Large-sized Adivasi Multi-Purpose Societies (LAMPS) for on-lending to agriculture.
- vii. Loans sanctioned by banks to MFIs for on-lending to agriculture sector.
- viii. Loans sanctioned by banks to registered NBFCs (other than MFIs) for on-lending as per RBI conditions
- ix. Loans sanctioned by banks to registered NBFCs (other than MFIs).
- x. Outstanding deposits under RIDF and other eligible funds with NABARD on account of priority sector shortfall.

#### • Loans to Cooperative Societies of farmers for disposing of their produce

Primary Agriculture Cooperative Credit Societies (PACS) undertake a wide variety of operations such as lending, inputs sales, consumer goods sales, farm produce purchase and processing. Following the implementation of Vaidyanathan Committee reforms, PACS are eligible to avail credit facility from any financial institution other than the apex institution to which these are affiliated. Such lending by commercial banks will qualify as priority sector advance under other ancillary activities of agriculture.

Primary Agriculture Credit Societies (PACS), being registered cooperative societies, have been providing credit and other services to their members. PACS generally provide the following facilities to their members viz., i. Input facilities in form of cash or kind component ii. Agriculture implements on hiring basis iii. Storage facilities.

#### • Aggregation of Agri produce

The total number of operational land holdings in the State was 53.21 lakh (2015-16). Land holdings up to 2 Ha accounted for 68.31% of the total land holdings and 34% of the area in the State, while the land holdings  $\geq 10$  Ha accounted for 0.75% of the total holdings and 5.91% share of the area. The land holding size in the State averaged at 2.03 Ha compared to the all-India average of 1.08 Ha. The State ranks fifth in the country in terms of average size of landholding. The total number of landholdings in the state are 5321000 of which 2019000 are marginal landholdings and 1616000 are small landholdings.

In the district nearly 30.43% farm holdings which are less than 2 ha and cover about 28.89% of the cultivated area. There is also a preponderance of marginal farmers with 46.53% holding

only 12.11% of land area. Aggregation of produce by these farmers will lead to better bargaining capacity when dealing with the buyers of their produce. All such loans up to ₹5 crore to co-operative societies of farmers for disposing of the produce of members classify as priority sector loan. (Source: District Statistical Abstract & agcensus.dacnet.nic.in)

#### • **Agri-Clinics and Agri-Business Centre's Scheme (ACABC)**

Agri-Clinics and Agri-Business centres Scheme was launched in April 2002 by Government of India with the objective to supplement the public extension system through committed private extension services at free or nominal cost by educated and trained candidates in a self employment mode, by Extension Division of Department of Agriculture, Cooperation & Farmers Welfare (DAC and FW), Ministry of Agriculture & Farmers Welfare, Government of India. National Institute of Agricultural Extension Management (MANAGE), Hyderabad, provides training to Agricultural Graduates through Nodal Training Institutes (NTIs) under ACABC scheme for performing extension services.

There are 4 Nodal Training Institutes (NTIs) in Gujarat namely ASPEE, Agribusiness Management Institute, Navsari Agricultural University; Navsari, Ganpat University, Meshana; Junagadh Agricultural University (JAU)-Junagadh and Shashwat Sheti Vikas Pratishthan, Sub Center, Amreli. The number of trainees trained under ACABC scheme in Gujarat is 592. (<https://acabcmis.gov.in>)

**Agri-Clinics:** Agri-Clinics are envisaged to provide expert advice and services to farmers on various technologies including soil health, cropping practices, plant protection, crop insurance, post- harvest technology and clinical services for animals, feed and fodder management, prices of various crops in the market etc. which would enhance productivity of crops/animals and ensure increased income to farmers.

**Agri-Business Centres:** Agri-Business Centres are commercial units of Agri-ventures established by trained agriculture professionals and are envisaged to provide services to farmers on maintenance, repair and custom hiring of farm equipment's, sale of inputs and other services in agriculture and allied areas including post- harvest management and market linkages for income generation and entrepreneurship development.

#### **2.3.2.2 Assessment of Credit Potential for 2023-24 for Loans to Coop Societies of Farmers, Loans to PACS/FSS/LAMPS) for ancillary activities**

(₹In lakh)

Sr. No.	Activity	Unit	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Loans to PACS/FSS/LAMPS	Nos.	10.00	775	7750.00	6588.00
2	Loans to MFIs	Nos.	100.00	40	4000.00	3400.00
3	ACABC Finance	Nos.	30.00	22	660.00	561.00
<b>Total Ancillary Activity Others</b>				<b>837</b>	<b>12410.00</b>	<b>10549.00</b>

Source: Consultation with Banks & LDM

#### **2.3.2.3 Critical Interventions required for creating a definitive impact**

- ACBC Scheme may be given larger publicity for encouraging educated youngsters with agriculture background to come forward for their contribution to the farming community. The Scheme may be deliberated in forums such as BLBC / DLCC and taken ahead by various banks.
- PACS may be motivated to function as 'One Stop Shop' for meeting all the credit requirements of farming community, thereby enhancing their own business operations and financial viability.
- Banks may be encouraged to finance Micro Finance Institutions (MFIs) for reaching out to the unreached particularly in rural areas.

- Dissemination of knowledge and information of various schemes benefitting the rural community may be given wide publicity by banks.

#### **2.3.2.4 Suggestions / Issues:**

- There is an immense need of establishing Farmers Producer Organizations in the district which will be helpful in establishing Agro/Food processing unit on a large scale through their combined strength and benefit of having legal identity. Government should encourage vegetable growers in the district for converting them into a registered entity as FPO.

#### **2.3.2.5 Other related issues**

- Commodity specific 'Food Parks' which may provide common infrastructure and services to the stakeholders is the need of the hour.
- Thrust on brand promotion and upgrading packaging standards.
- Farmers Organizations may be encouraged to take up food & agro processing activities like sorting, grading, pre-cooling, packaging etc. for value addition and ultimately for better realization of their produce.

#### **2.3.2.6 Others-Loans to SHGs/JLGs/distressed persons/PMJDY**

- **Loans to Individuals and SHGs/JLGs:** Generally, financial institutions take security for giving loans. In this process, a large section of society was not able to get subsidised rate of interest loans from the banks and their welfare was not addressed. NABARD took lead in this matter and envisaged the concept of SHG and JLG. The poor were united in the form of groups and it showed to the world that poor as a group are loan worthy and rest is history. Group mode of loaning paved the way for giving finance to poorest of poor and improve their social and economic. Moreover, it is a very good proposition for banks also with good rate of recovery from groups.
- **Loans to distressed persons to prepay non-institutional lenders (other than farmers):** In order to get small, quick loans without resorting to much paper work people took loans from non-institutional lenders to meet their emergent requirements on a very high rate of interest. Payment of such a high rate of interest is a big burden on the poor people which create lot of problem in their family life. However, those people can take loan from financial institutions to prepay their debt taken from private lender. Based on the ground level situation in the district as also discussions held with bankers and other agencies involved in implementation and financing under the sector, potential for 2021-22 has been estimated and given in paragraph 2.3.2.7.
  - In terms of revised RBI Master circular on PSL, loans not exceeding ₹50,000/- per borrower financed directly by banks to individuals and their SHG/JLG, provided the individual borrower's household annual income in rural areas does not exceed Rs.1,00,000/- and for non-rural areas it does not exceed Rs.1,60,000/-.
  - Loans to distressed persons (other than farmers) included under "Loans to distressed farmers indebted to non-institutional lenders" not exceeding ₹1,00,000/- per borrower to prepay their debt to non-institutional lender.
  - Loans sanctioned to State Sponsored Organizations for SCs/ STs for the specific purpose of purchase and supply of inputs and/or the marketing of the outputs of the beneficiaries of these organizations are covered under the sector "Others".

- **Pradhan Mantri Jan Dhan Yojana (PMJDY)**

During the year 2014-15, a campaign for Pradhan Mantri Jan Dhan Yojana (PMJDY) was launched to cover all population not under banking fold. As of now each such households has at least one basic savings account in the bank. As a part of second phase, each such account holder is being provided an overdraft facility of upto ₹10000/- through such accounts. This

overdraft facility will act as an important safety net for poor households in the district. Overdraft facility extended in such accounts will be eligible to be reckoned as priority sector finance.

### 2.3.2.7 Credit Potential for 2023-24

(₹in lakh)

Sr. No.	Activity	Unit (Ha. No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	SHG Loans Mature	Nos.	1.50	1845	2767.50	2767.50
2	SHG Loans New	Nos.	1.00	680	680.00	680.00
3	Loans to JLGs	Nos.	2.00	850	1700.00	1700.00
4	PMJDY Loans	Nos.	0.10	1360	136.00	136.00
5	Loans to Distressed	Nos.	0.05	187	9.35	9.35
6	Govt Sponcered SC/ST	Nos.	1.50	629	943.50	754.80
7	Misc	Nos.	1.00	255	255.00	204.00
<b>Other Priority Sector Total</b>				<b>5806</b>	<b>6491.35</b>	<b>6251.65</b>

Block wise and activity wise potential for the year 2023-24 is given in the Annexure I.

### 2.3.2.8 Critical Interventions required for creating a definitive impact

Under PMJDY opening of basic SB A/C work has been completed in the district and bankers have done great job by achieving 100% of target in very short spell. There is an urgent need to credit all the payments of subsidy/pay/remuneration compulsorily through bank accounts only. To start with MNAREGA remunerations should directly to be credited in bank account. Co-operative banks have vide reach up to the last mile villages through their Primary Agriculture Cooperative Societies which may be used for crediting bank accounts in the district

### 2.3.2.9 Suggestions / Issues:

- There is an immense need of establishing Farmers Producer Organizations in the district which will be helpful in establishing Agro/Food processing unit on a large scale through their combined strength and benefit of having legal identity. Government should encourage vegetable growers for converting them into a registered entity as FPO.
- Commodity specific 'Food Parks' which may provide common infrastructure and services to the stakeholders is the need of the hour.
- Thrust on brand promotion and upgrading packaging standards.
- Imparting market oriented training by DIC, DRDA, and NGOs etc.
- More emphasis on design and product development and thrust on R & D and innovations by different Government agencies.
- Top priority is to be given for development of agro-based and food processing infrastructure.
- The stake-holders in the sector will benefit if strategies to promote common brand name are worked out, towards which incentives to cooperatives, growers associations, processed food exporters can be considered on the lines of Maha-mango, Maha-grapes and Safal etc.
- Uptake of innovative / hi-tech schemes is to be encouraged. Therefore, the need is to develop infrastructure for support to R & D / skill upgradation / training for innovative projects.
- Matured Sakhi Mandals (SHG) of women may be given subsidy for establishment of food and agro processing units considering locally available raw materials / vegetables/ fruits etc.
- There is a need of post-harvest infrastructure and supply chain in the district.
- Considering huge cotton production in the district, textiles/power loom sector could be focused for industrialization.
- Considering the skill of farming of low sugar potato and potential of fast-food market and export potential of Diet wafers in the district, Government should take necessary steps to boost this sector.



### **Special Refinance Facility for transforming PACS as MSCs through StCB**

<b>Scheme</b>	Saturate all the potential PACS for conversion as MSC over a period of three years commencing from 2020-21 by providing special long term refinance facility through StCBs at 3%
<b>Sanction of Refinance</b>	<ul style="list-style-type: none"> <li>• To StCB against loan approved for creation of infrastructure facilities by PACS</li> <li>• DPR to be prepared by PACS and submitted to CCBs/StCBs for appraisal and loan approval</li> <li>• StCB may forward individual projects of PACS alongwith their audited balance sheet for the last three years and recommendation for sanction to NABARD</li> <li>• In case StCB desires to promote a particular investment activity by PACS, StCB may prepare the district-wise plan indicating the cost of project at PACS level and details of PACS to be supported and submit the DPR for sanction</li> </ul>
<b>Eligible activities</b>	<ul style="list-style-type: none"> <li>i. Agro-storage centres – new scientific godowns alongwith sorting/grading unit</li> <li>ii. Setting up of cold storage – cold chains, milk collection and chilling centres</li> <li>iii. Agro-service centres – Purchase of hi-tech agri-implements</li> <li>iv. Agro-processing centres – Sorting, grading unit / value addition to produce</li> <li>v. Agri-information centre – Soil &amp; water testing lab, knowledge dissemination, training to farmers</li> <li>vi. Agri-transportation &amp; marketing facilities – setting up of rural mart, weigh bridge, shopping complex</li> <li>vii. Consumer store &amp; other miscellaneous activities – one stop shop, LPG agency, petrol pump outlet</li> <li>viii. Any other post-harvest management infrastructure</li> </ul>
<b>Grant support</b>	If required, PACS may seek grant support not exceeding 10% of loan component – max. ₹2.0 lakh. It will be need based – credit plus support linked to the activity.
<b>Eligibility criteria</b>	PACS should have powers to borrow for creation of infrastructure in the byelaws and should have sufficient borrowing power
<b>Margin</b>	Minimum 10%. Considering the financial status of PACS and to enable them to kick-start establishing agricultural infrastructure, if required, StCB/DCCB may consider relaxing margin money to 5%.
<b>Security</b>	Governed under General Refinance Agreement.
<b>Interest rate</b>	@ 3% per annum to StCBs and the ultimate lending rates to be charged by the banks not be more than 1% over & above the interest rate charged by NABARD. The interest margin to be shared by StCB & CCB will be decided on mutually agreed terms and shall be fixed. NABARD reserves the right of change of interest rate from time to time.
<b>Repayment</b>	Max. period of 7 years including a grace period of 6-24 months
<b>Monitoring &amp; Review</b>	On quarterly basis by Project Monitoring Committee (PMC) at District level – DDM, StCB, DCCB, PACS & RCS Representative

## Chapter -3

### Credit Potential for Micro, Small and Medium Enterprises (MSME)

#### 3.1 Introduction:

**Definition:** Ministry of Micro Small and Medium Enterprises, Government of India, defines MSMEs as under:-

<b>Micro</b>	The investment in plant and machinery or equipment does not exceed ₹1 crore and turnover does not exceed ₹5 crores.
<b>Small</b>	The investment in plant and machinery or equipment does not exceed ₹10 crore and turnover does not exceed ₹50 crore.
<b>Medium</b>	The investment in plant and machinery or equipment does not exceed ₹50 crore and turnover does not exceed ₹250 crore.

With around 63.4 million units in the country, MSMEs contribute around 6.11% of the manufacturing GDP and 24.63% of the GDP from service activities as well as 33.4% of India's manufacturing output. They have been able to provide employment to around 12 crore persons and contribute around 45% of the overall exports from India.

Their capacity to foster entrepreneurship and generate large scale employment opportunities at comparatively low capital cost is pivotal to reducing disproportionate and often disguised employment in agricultural sector in the country. MSMEs also complement large industries which develop core industrial and private sector research in the host region. Health of MSME sector is important for inclusive socio-economic development of the country and putting it on the path of high income country.

#### 3.2 Infrastructure and linkage support available planned and gaps

Importance of MSME sector to economy and employment has been duly realised by policy makers. This has resulted into several policy initiatives aimed at maintaining and improving the sector's health. The sector is eligible for credit under priority sector lending norms. Public procurement policy earmarks 25% of annual procurement by Central Ministry /Department / PSUs to be done from MSE Sector.

Schemes such as PMEGP (Prime Minister's Employment Generation Programme), provision of collateral free credit through credit guarantee fund for MSEs (CGTMSE), (ASPIRE) A Scheme for Promotion of Innovation, Rural Industries & Entrepreneurship), ESDP (Entrepreneurship and Skill Development Programmes), SFURTI (Scheme of Fund for Regeneration of Traditional Industries), MSE-CDP (Micro and Small enterprises Cluster Development Programme), Scheme for providing financial assistance to Khadi institutions under MMDA, The National Scheduled Caste and Scheduled Tribe Hub, Ministry of MSME UNIDO, GEF-5 Project on 'Promoting Market Transformation for Energy Efficiency in Micro, Small & Medium Enterprises' have been launched by government of India to support MSME sector.

Government of Gujarat, under industrial policy 2020, also provides assistance to MSMEs through several schemes such as Scheme for Assistance to MSME, Dr. Baba Saheb Ambedkar Udhayog Uday Yojana for SC/ST Entrepreneurs of MSME, Scheme for Assistance for Mini-Cluster Development etc supports the sector in state.

These schemes are designed after identification of weaknesses and shortcomings of MSME enterprises and are aimed at bridging the gaps in access to credit; improving skill, competitiveness and bargaining power of the sector and creation of assured markets.

In spite of all these schemes and measures by governments and RBI, gaps remain in the achievement of goals. Major obstacles include poor knowledge among beneficiaries, information gap, lack of skill and professionalism, competition from e-commerce websites, insufficient capacity to take advantage of technology, lack of innovation, poor access to formal credit as well as cyclical nature of availability of funds, absence of standardized



policies, legal compliance burden, poor delivery of services at the field level, corruption etc.

### 3.3 Assessment of potential for the financial year 2023-24 (in both physical and financial terms)

The sector, with focus of government but limited access to formal credit, provides a big opportunity for banks. More so in the state of Gujarat. The geographical, infrastructural and entrepreneurial competencies of the state puts it among top ten states in the country in terms of size of MSME sector. Bank's can and have been tapping into this large market and generating business. With disbursement of 94,815 crore of loan to MSME sector, the target of 94,365 crore for FY 22 in the state was crossed in the quarter ending December 2021 itself. The trend of MSME financing in Gujarat state during last 3 years is tabulated below: -

(₹lakh)

	31 March 2020	31 March 2021	31 March 2022
Loan Outstanding to MSMEs	1,29,03,176	1,35,15,964	1,82,38,911
Gross NPA (percent)	6.84 %	5.83 %	5.11 %

Source: SLBC, Gujarat

The credit potential for MSMEs for financial year 2023-24 is given below:-

(₹In lakh)

A	MSME Term Loans					
Sr. No.	Activity	Unit	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Micro Enterprise	Nos.	1.00	210	210.00	168.00
2	Small Enterprise	Nos.	25.00	145	3625.00	2900.00
3	Medium Enterprise	Nos.	100.00	240	24000.00	19200.00
4	KVIC Loans	Nos.	3.00	180	540.00	432.00
<b>Total MSME Term Loan</b>				<b>775</b>	<b>28375.00</b>	<b>22700.00</b>
B	MSME Working Capital					
1	Transport Operators	Nos.	10.00	190	1900.00	1520.00
2	Retail Traders	Nos.	5.00	190	950.00	760.00
3	Professional Self Empl.	Nos.	5.00	163	816.00	652.00
4	Miscellaneous	Nos.	5.00	105	525.00	420.00
<b>Total MSME Working Capital</b>				<b>648</b>	<b>4191.00</b>	<b>3352.00</b>
<b>Total A &amp; B MSME</b>				<b>1423.00</b>	<b>32566.00</b>	<b>26052.00</b>

Source: Financing major banks & LDM

### 3.4 Critical Intervention required for creating a definitive impact

- Adequate and timely bank finance to the MSMEs is key of its sustained growth in the district. The district has huge network of Bank Branches with deep penetration even in remote villages, availability of Bank credit is not an issue, most of the time, however timely disposal of application is a cause of concern.
- There is a urgent need to map units of these clusters with the branches of various banks to address the financial requirement of these units whether they are Micro, Small or Medium. This will pave a way for huge MSME revolution and help in realising the dream of ₹5 Trillion Economy and laid a solid foundation for ATMA NIRBHAR BHARAT. A similar exercise is required to be done for GIDC.

### 3.5 Suggested Action Points

- Unorganized clusters of artisans pursuing various rural arts in the district have to be mapped and guided to avail benefits offered under various State and Central

Government schemes so as to enable them to better commercialize their arts, undertake larger production to benefit from economies of scale and also be in a better position to market their produce.

- MSMEs may be encouraged MSMEs to adopt technology, formalize their enterprise, produce quality competitive products of global standards through in-house innovation.
- MSMEs may be encouraged to accept e-payments to gain economies of scale, gradually expand in size. The banks may appraise the MSME loan proposals expeditiously by doing due diligence online. The lenders should make full use of goods and service tax (GST) and Jan Dhan-Aadhaar-Mobile (JAM) trinity.
- Recently announced schemes by Government of India and RBI must be implemented in transparent manner and executed in letter and spirit. Banks must also ensure that at least 20% growth must happen in outstanding level on YOY basis. This will happen only when growth in disbursement will be in the range of 35 to 40% on YOY basis owing to substantial recovery and closure of accounts. Banks should give focussed attention towards disbursement in addition to sanctions.

### **3.6 Other related Matters**

MSMEs are already under pressure on account of demonetization, GST and now due to current pandemic so it becomes all the more important to initiate measures and execute them with close monitoring. Each District must have a MSME Development Office to look after the interests and development of MSME in its jurisdiction. All stakeholders must work towards kindling an animal spirit among MSME Entrepreneurs to make this sector dynamic and globally competitive. Banks play a very vital role in MSMEs financing. Providing adequate and timely credit, execution of RBI directions for MSMEs with regard to financing and assistance to stressed MSMEs, guiding them to manage various kind of risks etc., are key components of overall development of MSMEs. Banks should also have senior officer posted in each district to look after the interest of MSMEs. Senior Management to ensure that bona-fide commercial decisions taken by officers/executives are not questioned, to avoid aversion to lending MSMEs. Banks must keep a close eye on end use of the funds and ensure that lent money is channelized into productive section of economy. Recently announced schemes by Government of India and RBI must be implemented in transparent manner and executed in letter and spirit. Banks must also ensure that at least 20% growth must happen in outstanding level on YOY basis. This will happen only when growth in disbursements will be in the range of 35 to 40% on YOY basis owing to substantial recovery and closure of accounts. Banks should give focused attention towards disbursement in addition to sanctions.

## Chapter 4- Credit Potential for Export credit, Education and Housing

### 4.1. Credit Potential for Export Credit

**4.1.1** Exports play an important role in a country's economy. A healthy balance between foreign trade and exchange reserves to maintain the country's export growth should be the constant endeavor. Exports also have a correlation with the prevailing industrial environment with quality standards, competitive pricing and attractive packaging playing key roles. Exports are a national priority for the Government and private sectors which is recognized by all. In terms of RBI guidelines, financing for exports is available for "Pre-shipment/Packing Credit" and "Post-shipment Credit". For Domestic banks, export credit subject to a sanctioned limit of Incremental export credit over corresponding date of the preceding year, up to 2 per cent of ANBC or CEOBE whichever is higher, subject to a sanctioned limit of up to ₹40 crore per borrower.

### 4.1.2 Assessment of Credit Potential for 2023-24

The projections for the year 2023-24 is given as under:

Sr. No.	Activity	Unit	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Preshipment export credit	Nos.	100.00	34	3400.00	1648.00
2	Post shipment export credit	Nos.	150.00	34	5100.00	4080.00
<b>Total Export Credit</b>				<b>68</b>	<b>8500.00</b>	<b>5728.00</b>

### 4.1.3 Availability of Infrastructure & Gaps

- District has been classified as industrially backward by the State Government However, ceramic industries, cotton ginning and pressing, pharmaceutical industry, quarry and tiles industries etc. have come up due to raw material availability.
- There is no export SEZ in the district.
- Traditional activities viz. Handloom, Beauty Parlor, Sewing Work etc. are also providing employment in rural areas but does not have export potential.
- There is no major export oriented trades available in the district. As Ahmedabad city and Airport is nearer to the district all the export credit files are handled by Forex the branches of Ahmedabad / Gandhinagar based Banks' forex offices.
- As discussed with bankers in the district there are Ceramic Industry and Machine tools industry availing export credit in the district.
- There is an export potential in a district for starch less (sugar free) potato wafers as farmers are expert in growing starch less potato. Committee is to prepare and act on District Specific Export Action Plans in collaboration with all the relevant stakeholders from the Center, State and the District.
- The initiative of One District One Product (ODOP) launched by Department for Promotion of Industry and Internal Trade (DPIIT) has been operationally merged with DEH. Therefore, the initiative of ODOP is now being implemented by DGFT under the aegis of Department of Commerce with DPIIT as a major 2 stakeholder. New scheme 'Districts as Export Hubs' proposed under the Foreign Trade Policy with an allocation of ₹4500.00 crore. For formation of District Export Promotion Committee (DEPC); and (ii) Preparation of District Export Strategy/ Action Plan. District Export Promotion Committees (DEPCs) being created at the district level has been created. The Committee is headed by District Magistrate or the head in-charge of the District and would be co-chaired by the designated Regional Authority (RA) of DGFT.

### 4.1.4 Action Points / Issues to be addressed

- Creation of Godowns/ Cold storages
- Quality control through international level grading / sorting / packaging.
- FPOs could be encouraged to go in for branding & export
- Training and exposure visits to potential exporters

## 4.2 Credit Potential for Education

### 4.2.1. Introduction

Education is central to the human resources development and empowerment in any country. National and State level policies are framed to ensure that this basic need of the population is met through appropriate public and private sector initiatives. While governments endeavour to provide primary education to all on a universal basis, higher education is progressively moving into the domain of private sector. With a gradual reduction in government subsidies higher education is getting more and more costly and hence the need for institutional funding in this area.

**The Education Loan Scheme** aims at providing financial support from the banking system to deserving/ meritorious students for pursuing higher education in India and abroad. After introduction of the scheme in 2010, new modifications have been incorporated in the scheme that now states that loans to individuals for inland educational purposes, including vocational courses, up to ₹20 lakh, irrespective of the sanctioned amount will be considered as eligible for priority sector. These do not include loans granted to institutions.

### 4.2.2 Assessment of potential for financial year 2023-24

(₹lakh)

Sr. No.	Activity	Unit (Ha. No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Education Loan	Nos.	10.00	78	780.00	624.00
2	Vocational Course	Nos.	4.00	52	208.00	208.00
3	Overseas Education	Nos.	10.00	17	170.00	136.00
	<b>Education Loan Total</b>			<b>144</b>	<b>1158.00</b>	<b>968.00</b>

The projections under Education Loan in the District for the year 2023-24 are estimated at ₹968.00 lakh. The Block-wise details are given in Annexure I.

### 4.2.3 Availability of Infrastructure & Gaps

- No. of schools (education up to Standard 8th) per 1 lakh population (24.27 lakh population and 2455 school) is 101.15 against the state average of 77.10.
- No. of secondary and sr. secondary schools per 1 lakh population (24.27 lakh population and 532 Secondary & HS school) is 21.92 against State average of 15.25.
- No. of Degree and professional colleges per 1 lakh population (24.27 lakh population and 31 colleges) is 0.78 against state average of 1.43 so there is an immense need for Degree and Professional colleges in the district.

### 4.2.4 Action points / issues

- Insistence on collateral for education loans is one of the biggest hurdle in its growth. Steps need to be taken at policy making level to popularize education loans.
- Transparent grading and placement records of various educational institutes may be made available to banks so as to gain confidence in the institute to finance its students.
- Banks may conduct camps in higher secondary schools and colleges and provide check list of documents to be submitted for availing education loan.
- There is an intense need for creation of awareness of the education loan products amongst the aspiring students and their parents. Banks may display their schemes at the schools and colleges for a wider publicity.
- The education department may play a pro-active role in sensitizing the students about benefits of higher education and loan facilities available from various banks. The credit discipline and inculcating the habit of regular repayment of instalment can be infused right from the student stage itself.
- Considering that higher education has become costlier in self-finance Institutes, Bankers should come forward for issuing education loan in large scale to needy and brilliant students.

### 4.3 Credit Potential for Housing

#### 4.3.1 Introduction

**Housing Finance under priority Sector lending cover the following:**

Housing Finance under Priority Sector Lending cover the following:

1. Bank loans to Housing sector as per limits prescribed below are eligible for priority sector classification:
  - a. Loans to individuals up to ₹35 lakh in metropolitan centres (with population of ten lakh and above) and up to ₹25 lakh in other centres for purchase/construction of a dwelling unit per family provided the overall cost of the dwelling unit in the metropolitan centre and at other centres does not exceed ₹45 lakh and ₹30 lakh respectively. Existing individual housing loans of UCBs presently classified under PSL will continue as PSL till maturity or repayment.
  - b. Housing loans to banks' own employees will not be eligible for classification under the priority sector.
2. Loans up to ₹10 lakh in metropolitan centres and up to ₹6 lakh in other centres for repairs to damaged dwelling units conforming to the overall cost of the dwelling unit as prescribed in para 1.
3. Bank loans to any governmental agency for construction of dwelling units or for slum clearance and rehabilitation of slum dwellers subject to dwelling units with carpet area of not more than 60 sq.m.
4. Bank loans for affordable housing projects using at least 50% of FAR/FSI for dwelling units with carpet area of not more than 60 sq.m.

#### 4.3.2 Assessment of Credit Potential for the financial year 2023-24

(₹lakh)

Sr. No.	Activity	Unit	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Purchase/ construction of dwelling units (upto 20 Lakhs)	Nos.	16.00	1900	30400.00	24320.00
2	Repairing of House	Nos.	2.00	911	1822.00	1457.60
<b>Total Housing Credit</b>				<b>2811</b>	<b>32222.00</b>	<b>25777.60</b>

#### 4.3.3 Availability of Infrastructure, critical gaps & Intervention required, action points/ issues to addressed

The total population of the district is 1023724 (Male 524103 and Female 499621) as per 2011 census. Population density has increased to 328, as per 2011 provisional census data from 282 (2001 census).

#### 4.3.4 Suggestions / Action points:

- Promotion of affordable housing for weaker section through credit linked subsidy
- Affordable housing in partnership with Public & Private sectors and Subsidy for beneficiary-led individual house construction or enhancement
- There is poor response from bankers for loan of ₹20000/- for IAY beneficiaries. As against sponsored cases of 1332, only were 339 sanctioned with huge pendency of 849 cases in Aravalli district. Bankers should come forward for financing IAY beneficiaries as Government is paying ₹97030/- for one house whereas bank loan is ₹20000/-. Bankers may put mortgage entry in revenue records for loan amount also.

## Chapter 5: Credit Potential for Infrastructure

### 5.1 Infrastructure –Public investments

#### 5.1.1 Introduction

Infrastructure is the sum total of basic facilities and services required for proper utilization of resources (physical & human) for the development of an area. Infrastructure development plays a significant role in economic growth and poverty alleviation, more so, in the rural area. Rural infrastructure comprises of core infrastructure viz., irrigation, connectivity (road, power, IT), transportation, energy (generation, transmission, distribution), post-harvest and social infrastructure viz., drinking water, sanitation, sewerage, health, housing and education etc.

Investment in rural infrastructure fosters agricultural growth, creates new economic opportunities and activities, generates employment and income, and improves delivery of other rural services. Therefore, in 1995-96, Rural Infrastructure Development Fund (RIDF) was created in NABARD to facilitate public investments for rural infrastructure. State Governments avail RIDF assistance for creation of wide variety of rural infrastructure covering 39 activities (Recently 2 activities namely Ropeway and Road Over-bridge on Railway crossing are included under Rural Connectivity sector) under three broad categories, viz., Agriculture and related sectors, Rural connectivity and Social sector. The cumulative loan assistance sanctioned under the fund to the Government of Gujarat since inception of RIDF stands at Rs 35225 crore under 63172 projects.

Over the years, RIDF has emerged as a preferred source of funding for State Governments. This led to creation of many other funds in NABARD for supporting specific rural infrastructure activities viz. Warehouse Infrastructure Fund, Food processing Fund, Long term Irrigation Fund, Dairy Processing and Infrastructure Development Fund, Micro Irrigation Fund, Fisheries and Aquaculture Infrastructure Development Fund, NABARD Infrastructure Development Assistance etc. The details of sanction and disbursement since inception under various infrastructural funds are given as under :

NABARD - Infrastructure Fund and Sector	Projects Sanctioned since inception		Disbursement
	Number	Amount	Amount
<b>RIDF</b>			
Agriculture Related	30056	25009	21865
Social Sector	21473	7594	5780
Rural Connectivity	11643	2622	2232
<b>Total</b>	<b>63172</b>	<b>35225</b>	<b>29877</b>
LTIF	1	3611	3611
NIDA	9	1704	594
FIDF	3	450	-
WIF	10	470	383
MIF	1	764	297
FPF	7	97	68
FAIDF	3	450	0
<b>Total</b>	<b>63206</b>	<b>42771</b>	<b>34830</b>

#### 5.1.2 Infrastructure and linkage support available, planned and gaps:

In Gujarat, major share (71%) of RIDF assistance has gone for Agriculture and related sector followed by social sector (22%) and rural connectivity (7%). Some of the major RIDF projects that are under implementation include SAUNI (Saurashtra Narmada Avtaran Irrigation) Yojana which involves construction of four links under various packages in the drought prone Saurashtra region and Expansion of the network of Narmada Main Canal viz., Saurashtra and

Kutch Branch Canals & construction of Sub-minors for delivering water to the last mile farmer. RIDF has therefore proved an exemplary financial intervention for boosting agricultural production and productivity in the State.

The details of benefit accrued under the infrastructural projects of NABARD are highlighted as under:

<b>Fund</b>	<b>Benefits</b>	<b>Units</b>	<b>Quantity</b>
<b>RIDF</b>	Irrigation Potential	Lakh Ha	33
	Villages benefitted - Rural drinking water supply	Number	14775
	Anganwadi Centers constructed	Number	9134
	PHCs constructed	Number	7203
	Rural Road constructed	Km	21,076
	Dry Warehouse Storage for Grass ( 12 districts )	Lakh MT	1.1
	Dry Warehouse Storage for Seed and Agri Inputs ( 14 districts)	Lakh MT	1.85
	SKY project - farmers benefitted	Number	4445
	SKY project - Solar feeders commissioned	Number	93
	SKY project – Electricity generation capacity	Mega Watt	101
<b>MIF</b>	Micro-irrigation facility	Lakh Ha	2.07
<b>LTIF</b>	Irrigation Potential	Lakh Ha	18
	Drinking water facility - Villages covered	Number	3112
	Drinking water facility - Population benefitted	Lakh	2.75
	Hydro-electricity Generation capacity	Mega Watt	1450
<b>WIF</b>	Warehousing capacity	Lakh MT	6.5

Details of RIDF project in the district:

(₹in lakhs)

<b>Sr.</b>	<b>Details of Projects</b>	<b>No. of</b>	<b>Total</b>	<b>NABARD</b>
1	Public Health Centre and	145	2820.55	2397.46
2	Checkdams 5272- RIDF - XVI	717	2918.57	2772.64
3	84 Underground Drainage-	5	4397.56	3737.92
4	Major Irrigation (Watrak	1	44500.00	42275.00
5	Rural Roads 21 MDR-RIDF-	1	1092.80	874.24
6	Warehouses 52-RIDF- XVII	2	93.00	88.35
7	Anaganwadi Centres –RIDF-	300	1184.10	1006.49
8	2000 Health Centres-RIDF - XX	3	2171.50	1845.77
	<b>Total</b>	<b>1174</b>	<b>59178.08</b>	<b>54997.87</b>

### 5.1.3 Assessment of potential for financial year 2023-24

<b>S.No</b>	<b>Potential areas of financing</b>	<b>TFO</b>	<b>RIDF Loan</b>	<b>Area Benefitted</b>
1.	Irrigation	15820.00	12656.00.	3915
2.	Drinking Water Supply	2674.80	2139.84	1354
3.	Health Centres/Anganwadis	1200.00	960.00	6
4.	Underground Drainage	-	-	-
5.	Rural Roads	-	-	-
6.	Others (If any)	1741.44	1393.15	3031
	<b>Total</b>	<b>21436.00</b>	<b>4493.00</b>	<b>8306.00</b>



#### 5.1.4 Critical Intervention required for creating a definitive impact:

Sr.No	Sector/Activity	Infrastructure gap identified
1.	<b>Farm Fencing / protection wall</b>	There is a great need for farm fencing / protection wall for entire farm area in the district as the wild animals viz. wild pig, Neel Gay (Rozada) etc. pose a serious threat to crops grown in the area. State Government's intervention in this area could prove to be a boon to the farmers. There is subsidy scheme under Forest Department with very small budgetary provision for farm fencing. The problem still persists in all the blocks of the district.
2.	<b>Village level RO water purifier Plant</b>	Low Availability of ground water as also its poor quality is a matter of concern in the district increasing health related problems. There is a need to help PACS / Gram Panchayat on a larger scale for RO water purifier in all blocks.
3.	<b>Fertilizer Rack for storage</b>	IFFCO, GNFC, GSFC, major dealers in fertilizer, in co-operative sector should come together to build the Fertilizer Storage Rack required in the district.
4.	<b>Fertilizer vending machine</b>	IFFCO, GNFC, GSFC, Fertilizer Major Dealers in co-op sector should come together to provide fertilizer Vending Machine in the tribal area of the district. Alternatively, Fertilizer manufacturers should pack and supply small packets of fertilizers in 2 kg, 5 kg and 10 kg packing considering very large number of marginal farmers.
5	<b>Need for construction of farm ponds in all blocks</b>	This District falls under the over-exploited category of ground water availability, hence the harvesting and prudent utilization of surface water is a must. Farm ponds are the only immediate solution to the problem for rain water harvesting and recharge the ground water level.
6	<b>Absence of proper storage arrangements compels farmers to go in for distress sales resulting in heavy losses.</b>	To address the problem, there is an urgent need to establish storages/ cold storages for horticultural produce with grading facilities, market- yards with structures required for sale and purchase and rodent free dampness proof, properly ventilated structures for storage of food grains.
7	<b>Agro-Processing Unit potential available in Aravalli district</b>	The farmers in the district have diversified to horticulture produce, that needs preliminary or advanced processing to increase the shelf life and also fetch good price for produce like potatoes, tomatoes, chilies, lady fingers and cauliflower.

#### 5.1.5 Suggested Action Points

- Farmers in the canal area of Vatrak, Meshwo and Mazum and Sujalam Suflam have suggested for repairing of the narmada canal.



- Government of Gujarat has taken up the excellent programme for soil health card for all farmers. This requires a lot of infrastructure in the form of soil testing centres. A minimum of one soil testing centre for each taluka will be required. In addition to Government investment in this regard, private investment also should be encouraged as an agri business activity. Private investment may be encouraged in agriculture related business activities by district administration through organizing of workshops, seminar and awareness camps in the district.
- The other agriculture and horticulture infrastructure activities that are identified are establishment of High tech Government Seed Testing Laboratory, establishment of horticultural nurseries and ventilated storage facilities for garlic/ onion, tissue culture labs for fruits and vegetables, facilities for production and purchase of organic agri inputs, establishment of research station for off season vegetables and floriculture cultivation in poly-house, establishment of AEZ for floriculture, establishment of research station and poly-technics for horticulture, strengthening of soil testing laboratories/ Multi Facility Testing Laboratories at district level, strengthening of training infrastructure facilities at Farmers Training Center in the district.

#### **5.1.6 Other related matters**

- Land acquisition issues regarding non allotment of government land for construction of social infrastructure
- Issues pertaining to getting farmers' consent to carry out civil works in their farms.
- Infrastructure development is an essential facilitating measure for economic growth and local development. Infrastructure development, poverty reduction and employment creation are linked.
- Investing in infrastructure creates income opportunities and generates jobs. Directly as employment can be created during the construction and maintenance of infrastructure by using labour-based methods. An increased use of local resources (labour and materials) in addition will have backward and forward linkages further stimulating the local economy. Indirectly as the assets created by themselves will improve access to income and employment opportunities.
- Providing adequate infrastructure such as clean sources of water, health, education, markets and proper transport access is still a major task, which is yet to be achieved in some parts of district.

## 5.2 Social Infrastructure Involving Bank Credit

### 5.2.1 Introduction

Standard of Living is an integral element of Human Development. The provision of drinking water, sanitation, education and health defines the quality of life of an individual. Accessibility to these services shape the day-to-day life of people and have long-term impact in terms of longevity, productivity and earning capacity of an individual. Amidst a steady economic growth in last 2 decades, Government of India has come up with numerous schemes and programmes to address the challenge of creating robust Social infrastructure. These include providing quality potable water to rural areas using Piped drinking water supply, enhancing rural sanitation under the Swachh Bharat campaign, providing universal elementary education under Right to Education, nutrition & health facilities using Anganwadis and community Health Centres and training for gainful employment in Skill development centres.

Reckoning the importance of social infrastructure for development in its latest Priority Sector Lending Classification as on 04 September 2020, RBI has brought Bank loans up to a limit of ₹5 crore per borrower for setting up schools, drinking water facilities and sanitation facilities including construction/ refurbishment of household toilets and water improvements at household level, etc. and loans up to a limit of ₹10 crore per borrower for building health care facilities including under 'Ayushman Bharat' in Tier II to Tier VI centres (In case of UCBs, the above limits are applicable only in centres having a population of less than one lakh) under the ambit of PSL norms. Also, bank credit to Micro Finance Institutions (MFIs) extended for on-lending to individuals and members of SHGs/JLGs for water and sanitation facilities will be eligible for categorization as priority sector under 'Social Infrastructure'.

Two Rural Drinking Water Supply project namely, Budhel to Borda Bulk Pipeline for drinking water supply (Rs 293.69 crore) and Dhanki to Navda Bulk Pipeline for drinking water supply (Rs 794.48 crore) have been sanctioned during 2021-22 under social sector which will ensure providing of potable water to 68.3 lakh rural populace. Besides, one Rural Drinking Water Supply Project has been sanctioned covering 23 schemes (Rs 1006.60 crore) in 08 districts of Gujarat which aims to provide 'Functional Household Tap Connections' (FHTC) to 85.76 lakh rural population under "Jal Jeevan Mission" the flagship programme of Govt. of India.

### 5.2.2 Social Infrastructure in the District available, planned and gaps

Social Infrastructure	Gujarat State	District
Primary Schools	44545 (73 per 1 lakh population)	1223
High School	11478 (19 per 1 lakh population)	288
Hospitals / Dispensary	1968 (3 per 1 lakh population)	3 Govt. & 60 dispensaries
Drinking Water (household covered under Tap Water)	8408796 (69% household)	271766 households covered

(Source: District & State Statistical Book)

### 5.2.3 Assessment of potential for financial year 2023-24

(₹in lakh)

Sr. No.	Activity	Unit (No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Sanitation (Toilets)	Nos.	0.12	310	37.20	29.76
2	Hospital	Nos.	50.00	9	450.00	360.00
3	School	Nos.	20.00	22	440.00	352.00
4	RO Plant	Nos.	6.00	36	216.00	172.80
	<b>Total</b>			<b>377</b>	<b>1143.20</b>	<b>914.56</b>

The Block-wise/Activity-wise details are indicated at Annexure -I.

### 5.2.4 Critical Intervention required for creating a definitive impact

- Need for setting up of Water Treatment plants to ensure supply of clean water to the people.

- ii. Need for solid waste management and sewage treatment plants.
- iii. Education Department may ensure availability of infrastructure facilities in schools. Digitisation of the schools and provision for drinking water plants, toilet, etc., therein.
- iv. Strengthening the transport services to ensure smooth communication.
- v. Strengthening of the health institutions in the district.

#### **5.2.5 Suggested Action Points**

- i. Banks should come forward and finance aggressively to the social infrastructure activities so as to fulfil priority sector obligations.
- ii. Collaborative efforts of departments like Education, Agriculture, and Health would certainly help in creating rural infrastructure for benefits of the people.
- iii. State Department needs to create awareness among the rural people about the importance of social sector development for improving standard of living of people.
- iv. NABARD can also help the State Govt. in identifying the potential infrastructure gaps and providing financial assistance to the Govt. to bridge the gaps.

### **5.3 Credit Potential for Renewable Energy**

#### **5.3.1 Introduction**

Renewable energy, often referred to as clean energy, comes from natural sources or processes that are constantly replenished. For example, sunlight or wind keep shining and blowing, even if their availability depends on time and weather. India is anticipated to be the biggest contributor to the renewables boom in recent years, with the country's annual growth in renewables growing since 2020. As the world witnesses a growth in demand for clean energy, the generation of power through new and renewable energy has been the thrust area of our State and Central Government. The Government of Gujarat recognizes green energy as one of its focus sectors and has thus emerged as a leader of India's future renewable energy programme.

Gujarat Renewable energy generation capacity is 10,648 MW, moreover, Gujarat contributes to nearly 12% of total renewable energy capacity of India i.e. it ranks 03<sup>rd</sup> amongst other states ranking. The State has witnessed 2x increase in installed capacity in last 4 years. Gujarat ranks first in India when it comes to Rooftop Solar power generation capacity. The Government of Gujarat, realizing the importance of renewable energy in dealing with Global Warming and Climate Change, has taken a bold initiative to announce the Solar Power Policy 2009 and Solar Power Policy 2015. With the announcement of the Solar Power Policy in 2009, a new vista has been opened to chart the 'Renewable Map' of the Country.

#### **Status of Renewable Energy in Gujarat**

Gujarat is one State which has fully converted the challenges into opportunities. It ranks first in setting up of a separate Climate Change Department – the 4<sup>th</sup> province in Asia, which emphasizes the Government's commitment to Go Clean & Green. Gujarat as a State has laid constant emphasis on mitigation initiatives, exploiting the clean and green energy potential, through the promotion of wind energy, solar energy and bio energy. There are 6 major institutions / departments in Gujarat which are looking after the affairs related to Renewable Energy and Climate Change.

1. Gujarat Energy Development Agency (GEDA) a State Nodal Agency that rolled off the Renewable Energy Development in India also looks after Climate Change. GEDA is the first State Nodal Agency in the Country for promotion, popularization and development of Renewable Energy and Energy Conservation projects in the State of Gujarat. Bureau of Energy Efficiency (BEE), Government of India has notified GEDA as the State Designated Agency – SDA for implementation of EC Act 2001.

- Gujarat Agro Industries Corporation (GAIC) has been established for popularization and implementation of National Programme on Biogas Development. This nodal agency has been involved in Biogas based development at family and farmers level.

The cost and subsidy details of family size Biogas plants are given here under:

Sr. No.	Capacity of Biogas	Cost (Rs.)	Subsidy – Gen. (60%)	Subsidy – SC/ST/OBC (75%)
			(₹)	(₹)
1	CuM/Day-540 cum.	13500	8100	10125
2	CuM/Day-820 cum.	20500	12300	15375
3	CuM/Day-930 cum.	23500	14100	17625
4	CuM/Day-1060 cum/	26500	15900	19875

- Surya Shakti Kisan Yojana (SKY) : Government of Gujarat has promoted this scheme for providing Solar PV Pump Sets to individual farmers for generating power for their captive use of water pumping and surplus power if any may be sold to Gujarat Urja Vij Nigam Limited for earning extra income. Earlier, Gujarat Green Revolution Company had implemented Solar Photo Voltaic Pumping Systems for agriculture with assistance from Ministry of New & Renewable Energy, GOI. The capacity and cost details are given below for reference and are indicative only;

Gujarat Green Revolution Co. Ltd.						
TOTAL COST FOR SPV WATER PUMP SYSTEM						
S. No	Type of Pump	MNRE subsidy Amount	For Banaskantha and Kutch		For all districts of Gujarat	
			Total Cost	Farmer Contri.	Total Cost	Farmer Contri.
1	3 HP DC Surface	121500	303000	181500	301000	179500
2	3 HP DC submersible	121500	284449	162949	284449	162949
3	5 HP DC Submersible	202500	401449	198949	400449	197949
4	3 HP AC Surface	97200	269000	171800	266000	168800
5	5 HP AC Surface	162000	-	-	349000	187000
6	3 HP AC Submersible	97200	265000	167800	263000	165800
7	5 HP AC Submersible	162000	343000	181000	346000	184000

- Khadi & Village Industries (KVIC): This agency is also involved in promotion of Biogas based scheme.
- Climate Change Department (GoG): This department is involved in climate mitigation / adaptation through various government agencies.
- National Bank for Agriculture & Rural Development (NABARD): The organization has been implementing MNRE, GoI scheme on Solar Energy as well as Water Pumping Schemes. NABARD has been implementing this subsidy scheme through Banks and subsidy is delivered as back ended through financing bank. The salient features of the schemes are available in the websites of NABARD and MNRE.

The State Government has adopted a two-pronged strategy to ensure energy security to generate renewable power and mooting energy efficiency in all the sectors of the economy.

### 5.3.2 Assessment of potential credit for 2023-24

Assessment for the year 2023-24 has been made at ₹47.12 lakh. The block-wise, item-wise potential credit requirement is indicated in Annexure 1.

(₹in lakh)

Sr. No.	Activity	Unit (No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
1	Renewal source of energy & waste utilisation/ Bio Gas plant	Nos.	0.250	133	33.25	26.60
2	Solar Pumping system (with DC motor pumpset)3HP	Nos.	5.130	5	25.65	20.52

Sr. No.	Activity	Unit (No.)	Projections for 2023-24			
			Unit Cost	Physical Unit	TFO	Bank loan
	<b>Total Renewable Energy Credit</b>			<b>138</b>	<b>58.90</b>	<b>47.12</b>

### 5.3.3 Availability of Infrastructure, critical gaps & interventions required

- Government of Gujarat took a bold initiative to announce Solar Power Policy -2009 and Solar Power Policy 2015, allowing investors to set up MW-scale Solar Power Projects. As a result, Solar Power Projects of 1584 MW have been commissioned till date in the State. In addition to this, 25MW solar Rooftop systems have been commissioned in the State. These Rooftop systems have been installed at various Government offices, Engineering colleges, Medical colleges, Court buildings, Hospitals, etc.
- Government of Gujarat has taken a prompt initiative in extending the benefit of solar energy to individual household by promoting a subsidy scheme in assistance with GOI for installation of Solar Roof Top System for house hold, mainly for 1 KW and 2 KW. This initiative has added value at the level of all the stake holders. This has proved as one more step in generation of clean and renewable energy with people's participation.
- Wind Energy is clean and safe energy that emerged as a state renewable power. On the wind energy front the State has also embarked upon an ambitious plan to tap the large wind power potential. Gujarat grabbed the lion's share of 68% in the new wind power capacity addition across the country in 2020-21. About 1,503.3MW of new wind power generation capacity was installed in India in fiscal 2021. With these new installations, Gujarat's current operational capacity for generation of power from wind energy sources stands at 8,561.8MW as against 7541.5MW in 2019-20. At 1,468.4MW, Gujarat created the highest wind power capacity in the previous fiscal as well. The state government sources pegged the capacity of new wind projects commissioned in Gujarat at 890MW for the fiscal 2021.
- Gujarat has set the pace for Renewable Energy Development in the Country with the foundation of Asia's first Solar Park being laid by the then Hon'ble Chief Minister Shri Narendra Modi in December 2010. The Solar Park is established on 2,024 ha of arid land in Village Charanka, Taluka Santalpur of Patan District.

### 5.3.5 Suggested Action Points

- Govt bungalows/institutions to cover with solar wind hybrid roof top system and solar water heating system.
- Reaching out to school and educational institutions to generate awareness on renewable energy technologies through the mobile demonstration unit.
- The Gujarat Energy Development Agency has set the pace of Renewable Energy Development in the country with the foundation laid for Asia's first Solar Park in Village: Charanka (Taluka: Santalpur) District Patan bordering Pakistan. The similar initiative can be taken up in other areas.
- Govt support for solar co-operative society in line with Dhundi model being implemented in Anand district.
- Being an industrialized district, the industries shall be compelled to adopt renewable source of energy wherever possible.
- A composite scheme of small cattle shed with five milch animals and a bio-gas plant could be prepared by DRDA for financing to SHGs. GEDA may plan, with milk cooperatives, for promotion of community biogas plants.
- Pradhan Mantri Kisan Urja Suraksha evem Utthan Mahabhiyan (PM-KUSUM) scheme was launched by the Ministry of New and Renewable Energy (MNRE) to support installation of off-grid solar pumps in rural areas and reduce dependence on grid, in grid-connected areas may be made farmers friendly so as to increase its coverage.

### 5.3.6 Other Related Matters

By adopting the use of bio-gas and solar pumping systems, the precious and hard-earned money of farmers can be saved. The expenditure on diesel and electricity can be saved by using renewable energy instead of fossil fuel. This would help in reduction of greenhouse gases and global warming issues can be addressed.

**CHAPTER-6****INFORMAL CREDIT DELIVERY SYSTEM****6.1 Introduction**

Micro finance occupies a pivotal position in the Socio- economic development of India. Microfinance is playing a crucial role in development of Indian Economy by enhancing credit access for rural households through its initiatives, which have a major stake in bringing the unbanked women to the mainstream by drawing them into the domain of SHG- BLP on a continuous basis. Being one of the most effective tools of reducing poverty, Microfinance has a significant role in bridging the gap between the formal financial institutions and the rural poor. Among the various models, the SHG - Bank Linkage Programme (BLP) helped extensively to empower the poor, especially rural women, through providing savings and credit windows from banks. NABARD has truly played the role of an enabler in the Microfinance Drive helping it to evolve rapidly into a global movement dedicated to providing access to a range of financial services to the financially excluded through various products and delivery channels. The bank led SHG-BLP, pioneered by NABARD, has grown from small pilot programme of 500 SHGs in 1992, has now metamorphosed into the world's largest microfinance movement that changed the lives of more than 13.8 crore poor involving 112.23 lakh SHGs with aggregate bank deposits of over ₹37000 crores, annual loan offtake of more than ₹58000 cr and with a credit outstanding of around over ₹100000 crore as on 31 March 2021.

For making SHG Bank linkage programme more client friendly and addressing some emerging issues, NABARD suggested certain product level changes under SHG -2 by reiterating thrust on savings with introduction of voluntary savings, smooth flow of credit with sanction of cash credit limit to SHGs, improved risk mitigation mechanism.

(Source-Status of Micro Finance in India Booklet 2021-22).

**6.2 Status of SHG-BLP in the district**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Status As on 31-03-2022</b>
1	Potential for formation of SHGs	8750
2	No. of SHGs Promoted	8193
3	No. of Saving linked	8193
4	Total Amount of Savings	₹198.00
5	Average Savings per Group-State average is Rs.12400	₹14000
6	No. of SHGs credit linked	3200
7	Amount of loan outstanding as on 31-March 2022	₹105.00
8	No. of SHGs credit linked during 2021-22	1994
9	Amount of credit sanctioned during 2021-22	₹3155.00
10	Amount of credit disbursed during 2021-22	₹3155.00
11	Credit disbursed per SHG during 2021-22	₹150.00
12	of which no. of SHGs who availed fresh loans	700
13	No. of SHGs who availed repeat loans	800
14	Recovery position of SHGs loans	NA
15	NPAs under SHG finance (%)	20

**Gujarat Livelihood Promotion Company (GLPC)**, an executive arm of Mission Mangalam and the implementation agency for NRLM, is playing a major role in the State in implementing the micro finance programme by organizing the poor into self-help groups. GLPC is implementing the following scheme for interest subvention in Gujarat in coordination with Ministry of Rural Development, GoI

In district apart from GLPC, NGOs were involved in the formation and handholding of SHGs through NABARD supported Wadi, Watershed programmes and other programmes by VIKSAT.

### **6.3 Outreach of SHG programme in Aravalli district**

Based on the 2011 census, the rural households in the district are estimated at 3,76,005 and the poor families as per Tendulkar Committee report are estimated at 38,151 (BPL). The number of poor rural household's families including marginally poor has been arrived at by taking 140% of the above to draw a potential of formation of SHGs in the district. As on 31 March 2022, about (17%) of rural households have been covered under the SHG Bank Linkage programme and it is expected that the entire rural population would be covered under the programme by March 2023.

### **6.4 Issues related to micro finance**

Although 8750 SHGs have been savings linked in the district, a mere 1994 SHGs have availed credit facilities from the banks as on 31 March 2022. The declining number of SHGs being financed by banks every year is a cause of concern. Some of the issues that are hampering the programme are given below:

- There is a huge gap between savings and credit linkage of SHGs
- Lack of awareness and motivation among the SHG members, should be addressed.
- Lack of awareness on suitable Income Generating Activities
- Bankers' apathy towards credit linkage of SHGs.
- Lack of awareness of services other than micro credit viz., micro insurance, pension and other government sponsored schemes
- Focus on group formation for availing subsidy from Government
- Regular drop out of SHG members due to migration
- Rotation of leadership within the SHG
- Heavy dependence on Bank Mitras
- Women are reluctant to spend time and travel outside the village to attend training programme for capacity building

### **6.5 Estimation of Potential under SHG-BLP**

Out of the total potential for promotion of 8750 SHGs in the district, as on 31 March 2022, 8193 SHGs have been promoted and savings linked in the district, thereby leaving a gap for promotion of further 2700 SHGs. The number of SHGs credit linked stood at 3200. The block wise details of potential available for promotion and savings linkage of SHGs in the district is furnished below in with paragraph 6.7. Similarly, the potential for credit linkage of the SHGs is furnished in paragraph 6.8.

### **6.6 Financing through Joint Liability Groups (JLGs)**

A lot of emphasis is being laid by the GOI for providing hassle free credit to landless farmers. Accordingly, besides SHG-BLP, NABARD made efforts in innovating and reaching out to the landless farmers through JLG scheme of financing and extends grant support for formation and nurturing of JLGs with 4-10 members, to banks and other JLG promoting agencies. Apart from extending 100% refinance support to Banks, NABARD also extends financial support for awareness creation and capacity building of all stakeholders of the programme.. The groups are basically mid-segments clients engaged in similar economic activities like crop production and who are willing to jointly undertake to repay loans taken by the groups. The JLG mode of financing serves as collateral substitute for loans provided to small, marginal, tenant farmers, oral lessees, share croppers, etc. It enables the banks to reach farmers through group approach, adopt cluster approach, facilitates peer education and credit discipline.



Considering an estimated number of 8,64,636 small and marginal farmers/agricultural labourers in the district, there is potential for financing of 700 JLGs (considering average 4-6 members per JLG) in the district. So far, a cumulative number of 300 JLGs have been financed to the tune of ₹150.lakh by different banks in the district. The banks are expected to extend financial support to a minimum of 700 JLGs during the current year, including 100 JLGs of tenant farmers.

**Business Model on Financing JLGs through RRBs** - NABARD has developed a business model on financing JLGs through RRBs. In order to scale up the JLG performance, NABARD has entered into MoU with 2 RRBs of the State.

**Women Self Help Group (WSHG) programme** -WSHG is a programme of Government of India for formation, financing and nurturing of SHGs in backward and Left Wing Extremism affected districts. At present the programme is being implemented in Dangs, Dahod and Union Territory of Dadra & Nagar Haveli (D&NH).

#### 6.7 Block wise details of potential available for promotion and savings linkage of SHGs

Sl. No.	Name of the block	Total potential for promotion of SHGs	No. of SHGs savings linked on 31 March 2022	Balance potential 2021-22	No. of SHGs to be promoted and savings linked during 2022-23	No. of SHGs to be promoted and savings linked during 2023-24
1	Bhiloda	2200	2137	63	63	94
2	Bayad	1800	1701	99	99	148
3	Dhansura	950	853	97	97	145
4	Modasa	1950	1896	54	54	81
5	Malpur	1050	999	51	51	76
6	Meghraj	800	607	193	193	289
	<b>Dist. Total</b>	8750	8193	557	557	833

#### 6.8 Block wise potential for credit linkage of SHGs

Sl. no.	Name of the block	No. of SHGs (credit linked) as on 31 Mar. 2023	SHGs to be credit linked during 2022-23				SHGs to be credit linked during 2023-24			
			Fresh		Repeat		Fresh		Repeat	
			No.	Amount (₹lakh)	No.	Amount (₹lakh)	No.	Amount (₹lakh)	No.	Amount (₹lakh)
1	Bhiloda	700	120	120.00	300	600.00	465	465	465	930
2	Bayad	600	100	100.00	300	600.00	400	400	400	800
3	Dhansura	400	90	90.00	150	300.00	300	300	325	650
4	Modasa	700	125	125.00	289	450.00	475	475	450	900
5	Malpur	400	85	85.00	175	300.00	350	350	350	700
6	Meghraj	400	85	85.00	175	300.00	250	250	300	600
	<b>Total</b>	3200	605	605.00	1389	2550.00	2240	2240	2290	4580



ANNEXURE-I

ACTIVITY-WISE / BLOCK-WISE PHYSICAL & FINANCIAL PROJECTIONS FOR 2023-24

State: GUJARAT

District: ARAVALLI

(₹lakhs)

Sr. No.	Activity / Unit cost	Unit Size/ BL	Bayad	Bhiloda	Dhansura	Malpur	Megharaj	Modasa	District Total
<b>I</b>	<b>Credit Potential for Agriculture</b>								
<b>A</b>	<b>Farm Credit</b>								
<b>i</b>	<b>Crop Production, Maintenance and Marketing</b>								
1	Paddy	Ha	1050	1840	1950	800	1200	1000	7840
	0.5	BL	525.00	920.00	975.00	400.00	600.00	500.00	3920.00
2	Wheat	Ha	8795	7450	9430	6300	4550	8235	44760
	0.45	BL	3957.75	3352.50	4243.50	2835.00	2047.50	3705.75	20142.00
3	Jowar	Ha	0	0	0	0	0	0	0
	0.3	BL	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Bajara	Ha	459	137	485	678	654	200	2613
	0.25	BL	114.75	34.25	121.25	169.50	163.50	50.00	653.25
5	Mustard/Other Oil seeds	Ha	1291	685	274	6617	445	4795	14107
	0.3	BL	387.30	205.50	82.20	1985.10	133.50	1438.50	4232.10
6	Cotton (seed plot)	Ha	4000	5960	3590	2795	2110	3450	21905
	1	BL	4000.00	5960.00	3590.00	2795.00	2110.00	3450.00	21905.00
7	Caster	Ha	4110	1439	4110	1370	2740	1710	15479
	0.5	BL	2055.00	719.50	2055.00	685.00	1370.00	855.00	7739.50
8	Maize	Ha	4521	10070	3151	2220	10550	4110	34622
	0.35	BL	1582.35	3524.50	1102.85	777.00	3692.50	1438.50	12117.70
9	Tobacco	Ha	130	800	900	400	300	200	2730
	0.3	BL	39.00	240.00	270.00	120.00	90.00	60.00	819.00
10	Vegetable	Ha	2014	980	480	822	1096	1233	6625
	0.55	BL	1107.70	539.00	264.00	452.10	602.80	678.15	3643.75
11	Ground Nuts	Ha	7600	2300	7440	3000	5850	3960	30150
	0.55	BL	4180.00	1265.00	4092.00	1650.04	3217.50	2178.00	16582.54
12	Potato (High yield)	Ha	1050	600	800	800	900	1230	5380
	1.25	BL	1312.50	750.00	1000.00	1000.00	1125.00	1537.50	6725.00
13	Other Flowers	Ha.	1096	6850	3425	1360	2740	1370	16841
	0.4	BL	438.40	2740.00	1370.00	544.00	1096.00	548.00	6736.40
	<b>Sub Total</b>		<b>19699.75</b>	<b>20250.25</b>	<b>19165.80</b>	<b>13412.74</b>	<b>16248.30</b>	<b>16439.40</b>	<b>105216.24</b>

Sr. No.	Activity / Unit cost	Unit Size/ BL	Bayad	Bhiloda	Dhansura	Malpur	Megharaj	Modasa	District Total
	<b>Post harvest/Household/Consumption + 10% of crop loan total</b>		<b>4924.94</b>	<b>5062.56</b>	<b>4791.45</b>	<b>3353.19</b>	<b>4062.08</b>	<b>4109.85</b>	<b>26304.06</b>
	<b>Repairs &amp; Maintenance of Farm Assets + 20% of crop loan total</b>		<b>5909.93</b>	<b>6075.08</b>	<b>5749.74</b>	<b>4023.82</b>	<b>4874.49</b>	<b>4931.82</b>	<b>31564.87</b>
	<b>Crop Loan Grand Total</b>		<b>30534.61</b>	<b>31387.89</b>	<b>29706.99</b>	<b>20789.75</b>	<b>25184.87</b>	<b>25481.07</b>	<b>163085.17</b>
<b>ii</b>	<b>Water Resources</b>								
1	Dug Well	Nos.	153	136	128	128	50	50	645
	2.59	BL	317.02	281.79	265.22	265.22	103.60	103.60	1336.44
2	Borewells ( 1.8x0.6)	Nos.	510	340	680	510	50	50	2140
	1.28	BL	522.24	348.16	696.32	522.24	51.20	51.20	2191.36
3	Irrigation Pump sets, Lateral size 22 mm, 1x0.6	Nos.	255	255	204	102	170	340	1326
	1.27	BL	259.08	259.08	207.26	103.63	172.72	345.44	1347.22
4	Drip Sets 1X0.6 (Lateral size 16 mm) (Excluding Sump Cost)	Ha	1020	255	340	300	300	850	3065
	1.71	BL	1395.36	348.84	465.12	410.40	410.40	1162.80	4192.92
5	Sprinkler Sets, (Lateral size 25 mm), 7.5x7.5	Ha	510	170	255	170	170	509	1784
	0.73	BL	297.84	99.28	148.92	99.28	99.28	297.26	1041.86
6	Lift Irrigation (1 ha)	Ha	340	510	425	510	510	1003	3298
	1.30	BL	353.60	530.40	442.00	530.40	530.40	1043.12	3429.92
7	Pipeline (1 ha)	Nos.	170	162	170	85	84	170	841
	0.46	BL	62.56	59.62	62.56	31.28	30.91	62.56	309.49
8	Renovation of wells(0 tp 60) mtrs	Nos.	153	68	85	17	255	340	918
	0.56	BL	67.93	30.19	37.74	7.55	113.22	150.96	407.59
	<b>MI Total</b>	<b>BL</b>	<b>3275.63</b>	<b>1957.36</b>	<b>2325.14</b>	<b>1970.00</b>	<b>1511.73</b>	<b>3216.94</b>	<b>14256.79</b>
<b>iii</b>	<b>Farm Mechanisation</b>								
1	Tractor	Nos.	100	150	150	80	50	70	600
	7.7	BL	616.00	924.00	924.00	492.80	308.00	431.20	3696.00
2	Power Tillers	Nos.	100	80	70	80	80	80	490
	2	BL	160.00	128.00	112.00	128.00	128.00	128.00	784.00
3	Agri. Implements	Nos.	80	70	80	80	70	80	460
	1.2	BL	76.80	67.20	76.80	76.80	67.20	76.80	441.60
	<b>FM TOTAL</b>	<b>BL</b>	<b>852.80</b>	<b>1119.20</b>	<b>1112.80</b>	<b>697.60</b>	<b>503.20</b>	<b>636.00</b>	<b>4921.60</b>
<b>iv</b>	<b>Plantation and Horticulture (including sericulture)</b>								
1	Mango (5 x 5)	Ha	60	30	35	25	20	50	220
	2.17	BL	104.16	52.08	60.76	43.40	34.72	86.80	381.92
2	Lime / lemon	Ha	70	80	65	54	34	55	358

Sr. No.	Activity / Unit cost	Unit Size/ BL	Bayad	Bhiloda	Dhansura	Malpur	Megharaj	Modasa	District Total
	1.45	BL	81.20	92.80	75.40	62.64	39.44	63.80	415.28
3	Amla	Ha	40	35	25	20	10	15	145
	0.90	BL	28.80	25.20	18.00	14.40	7.20	10.80	104.40
4	Dragon Fruit	Ha	200	100	300	200	500	600	1900
	7.19	BL	1150.40	575.20	1725.60	1150.40	2876.00	3451.20	10928.80
5	Nursery(Naturally ventillated)	Ha	100	200	69	88	30	100	587
	4.24	BL	339.20	678.40	234.05	298.50	101.76	339.20	1991.10
6	Custard apple	Ha	5	5	5	5	5	5	30
	1.14	BL	4.56	4.56	4.56	4.56	4.56	4.56	27.36
7	Green House-rose cultivation	Ha	10	9	8	7	6	5	45
	40	BL	160.00	144.00	128.00	112.00	96.00	80.00	720.00
8	Spota	Ha	2	14	0	0	8	0	24
	1.29	BL	2.06	14.45	0.00	0.00	8.26	0.00	24.77
9	Ber	Ha	7	9	9	8	8	8	49
	0.45	BL	2.52	3.24	3.24	2.88	2.88	2.88	17.64
10	Guava	Ha	17	6	8	1	0	3	35
	1.10	BL	14.96	5.28	7.04	0.88	0.00	2.64	30.80
11	Pomegranate	Ha	20	16	10	0	0	17	63
	1.44	BL	23.04	18.43	11.52	0.00	0.00	19.58	72.58
	<b>PH TOTAL</b>	<b>BL</b>	<b>1910.90</b>	<b>1613.64</b>	<b>2268.17</b>	<b>1689.66</b>	<b>3170.82</b>	<b>4061.46</b>	<b>14714.65</b>
<b>v</b>	<b>Forestry and Waste Land Development</b>								
1	Farm Forestry	Ha	17	170	8	51	85	8	339.00
	0.5	BL	7.23	72.25	3.40	21.68	36.13	3.40	144.08
2	Waste Land Development	Ha	16	15	16	16	6	16	85.00
	0.12	BL	1.63	1.53	1.63	1.63	0.61	1.63	8.67
3	Bio Diesel & Jatropha	Ha	8	9	9	9	9	9	53.00
	0.71	BL	4.83	5.43	5.43	5.43	5.43	5.43	31.99
	<b>Forestry TOTAL</b>	<b>BL</b>	<b>13.69</b>	<b>79.21</b>	<b>10.46</b>	<b>28.74</b>	<b>42.17</b>	<b>10.46</b>	<b>184.73</b>
<b>vi</b>	<b>Animal Husbandry – Dairy</b>								
1	CB Cows	Nos.	1200	1100	1100	1250	1050	1250	6950
	1.2	BL	1152.00	1056.00	1056.00	1200.00	1008.00	1200.00	6672.00
2	Buffaloes	Nos.	1200	1250	1050	1050	1200	1000	6750
	1.3	BL	1248.00	1300.00	1092.00	1092.00	1248.00	1040.00	7020.00
3	Indigenous cows	Nos.	900	1200	1050	1200	1100	1200	6650
	1.2	BL	864.00	1152.00	1008.00	1152.00	1056.00	1152.00	6384.00
4	Cattle Shed	Nos.	700	630	270	456	300	900	3256
	1.7	BL	952.00	856.80	367.20	620.16	408.00	1224.00	4428.16

Sr. No.	Activity / Unit cost	Unit Size/ BL	Bayad	Bhiloda	Dhansura	Malpur	Megharaj	Modasa	District Total
5	Milk House	Nos.	25	30	35	10	15	25	140
	3	BL	60.00	72.00	84.00	24.00	36.00	60.00	336.00
6	Milk-O-Tester	Nos.	34	9	9	4	3	26	85
	0.5	BL	13.60	3.60	3.60	1.60	1.20	10.40	34.00
7	Fodder Development	Nos.	1360	170	510	170	170	680	3060
	0.2	BL	217.60	27.20	81.60	27.20	27.20	108.80	489.60
8	Mini Dairy	Nos.	6	6	5	4	3	5	29.00
	5	BL	24.00	24.00	20.00	16.00	12.00	20.00	116.00
	<b>DD TOTAL</b>	<b>BL</b>	<b>4531.20</b>	<b>4491.60</b>	<b>3712.40</b>	<b>4132.96</b>	<b>3796.40</b>	<b>4815.20</b>	<b>25479.76</b>
9	<b>Working Capital(KCC)- Dairy(BL)</b>	Nos.	180000	131000	122000	122000	85000	170000	810000.00
	0.15	<b>BL</b>	<b>8100.00</b>	<b>5895.00</b>	<b>5490.00</b>	<b>5490.00</b>	<b>3825.00</b>	<b>7650.00</b>	<b>36450.00</b>
	<b>Grand Total Dairy(BL)</b>		<b>12631.20</b>	<b>10386.60</b>	<b>9202.40</b>	<b>9622.96</b>	<b>7621.40</b>	<b>12465.20</b>	<b>61929.76</b>
<b>vii</b>	<b>Animal Husbandry – Poultry</b>								
1	Broilers ( 1000 birds)	PU	98	90	60	70	120	110	548
	4.60	BL	360.64	331.20	220.80	257.60	441.60	404.80	2016.64
2	Layers (1000 birds)	PU	57	90	80	89	100	120	536
	1.6	BL	72.96	115.20	102.40	113.92	128.00	153.60	686.08
	<b>POULTRY TOTAL</b>	<b>BL</b>	<b>433.60</b>	<b>446.40</b>	<b>323.20</b>	<b>371.52</b>	<b>569.60</b>	<b>558.40</b>	<b>2702.72</b>
	<b>Total WC KCC Poultry</b>	<b>PU</b>	<b>46000</b>	<b>45000</b>	<b>44000</b>	<b>45000</b>	<b>46000</b>	<b>50000</b>	<b>276000</b>
	0.15	<b>BL</b>	<b>2070.00</b>	<b>2025.00</b>	<b>1980.00</b>	<b>2025.00</b>	<b>2070.00</b>	<b>2250.00</b>	<b>12420.00</b>
	<b>Grand Total Poultry</b>	<b>BL</b>	<b>2503.60</b>	<b>2471.40</b>	<b>2303.20</b>	<b>2396.52</b>	<b>2639.60</b>	<b>2808.40</b>	<b>15122.72</b>
<b>viii</b>	<b>Animal Husbandry – Sheep, Goat, Piggery, etc.</b>								
1	Sheep Rearing (20+1)	PU	34	34	34	25.5	26	17	171
	0.75	BL	20.40	20.40	20.40	15.30	15.60	10.20	102.30
2	Goat Rearing (10+1)	PU	51	51	35	39	43	34	253
	0.45	BL	18.36	18.36	12.60	14.04	15.48	12.24	91.08
	<b>S/G/P TOTAL</b>		<b>38.76</b>	<b>38.76</b>	<b>33.00</b>	<b>29.34</b>	<b>31.08</b>	<b>22.44</b>	<b>193.38</b>
	<b>Total WC KCC Sheep Goat</b>	<b>PU</b>	<b>34594</b>	<b>34500</b>	<b>34500</b>	<b>34500</b>	<b>34500</b>	<b>34970</b>	<b>207564</b>
	0.15	<b>BL</b>	<b>1556.73</b>	<b>1552.50</b>	<b>1552.50</b>	<b>1552.50</b>	<b>1552.50</b>	<b>1573.65</b>	<b>9340.38</b>
	<b>Grand Total Sheep Goat</b>	<b>BL</b>	<b>1595.49</b>	<b>1591.26</b>	<b>1585.50</b>	<b>1581.84</b>	<b>1583.58</b>	<b>1596.09</b>	<b>9533.76</b>
<b>ix</b>	<b>Fisheries (Marine, Inland, Brackish water)</b>								
1	Renovation of old Pond for fish culture	Nos	15	15	5	5	5	5	50
	3.50	BL	44.63	44.63	14.88	14.88	14.88	14.88	148.75
2	Resv. Fishing tin boat (inclgd nets)	Nos	40	10	10	20	10	10	100
	1.50	BL	51.00	12.75	12.75	25.50	12.75	12.75	127.50
	<b>FISHERIES TOTAL</b>	<b>BL</b>	<b>95.63</b>	<b>57.38</b>	<b>27.63</b>	<b>40.38</b>	<b>27.63</b>	<b>27.63</b>	<b>276.25</b>
	<b>Total WC KCC Fisheries</b>	<b>No</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>29</b>

Sr. No.	Activity / Unit cost	Unit Size/ BL	Bayad	Bhiloda	Dhansura	Malpur	Megharaj	Modasa	District Total
	0.15	BL	0.77	0.64	0.77	0.51	0.38	0.64	3.70
	<b>Grand Total Fisheries</b>		<b>96.39</b>	<b>58.01</b>	<b>28.39</b>	<b>40.89</b>	<b>28.01</b>	<b>28.26</b>	<b>279.95</b>
	<b>Grand Total of Working Capital of AH, Poultry, SGP &amp; Fisheries</b>		<b>11727.50</b>	<b>9473.14</b>	<b>9023.27</b>	<b>9068.01</b>	<b>7447.88</b>	<b>11474.29</b>	<b>58214.08</b>
<b>x</b>	<b>Others-Bullock, Bullock cart, etc</b>								
1	Bullocks (1+1)	Nos.	42	66	8	33	49	17	215
	0.50	BL	16.80	26.40	3.20	13.20	19.60	6.80	86.00
2	Bullock carts	Nos.	33	40	25	50	50	32	230
	0.60	BL	15.84	19.20	12.00	24.00	24.00	15.36	110.40
3	Motor cycle to Farmers	Nos.	1485	1320	495	200	250	1815	5565
	0.70	BL	831.60	739.20	277.20	112.00	140.00	1016.40	3116.40
4	Misc. Agri. Advances	Nos.	413	164	248	82	83	825	1815
	5.00	BL	1652.00	656.00	992.00	328.00	332.00	3300.00	7260.00
	<b>TOTAL</b>	<b>BL</b>	<b>2516.24</b>	<b>1440.80</b>	<b>1284.40</b>	<b>477.20</b>	<b>515.60</b>	<b>4338.56</b>	<b>10572.80</b>
	<b>TOTAL FARM CREDIT (TL+Agri allied)</b>		<b>13668.44</b>	<b>11244.35</b>	<b>11097.20</b>	<b>9437.39</b>	<b>10168.22</b>	<b>17687.09</b>	<b>73302.68</b>
<b>B</b>	<b>Agriculture Infrastructure</b>								
<b>I</b>	<b>Storage Facilities</b>								
1	Cold Storage units	Nos.	10	8	7	6	5	12	48
	5.5	BL	44.00	35.20	30.80	26.40	22.00	52.80	211.20
2	Market / sub yards	Nos.	2	2	2	2	2	2	12
	240	BL	384.00	384.00	384.00	384.00	384.00	384.00	2304.00
3	Rural Godowns 300MT*7600	Nos.	14	15	10	13	10	10	72
	20.55	BL	230.16	246.60	164.40	213.72	164.40	164.40	1183.68
	<b>SG/MY Total</b>	<b>BL</b>	<b>658.16</b>	<b>665.80</b>	<b>579.20</b>	<b>624.12</b>	<b>570.40</b>	<b>601.20</b>	<b>3698.88</b>
<b>ii</b>	<b>Land development, Soil conservation, Watershed development</b>								
1	Land Reclamation	Ha	205	155	130	130	160	110	890
	0.77	BL	126.28	95.48	80.08	80.08	98.56	67.76	548.24
2	Bunding and Trenching as field level Soil and water conservation activities	Ha	165	100	135	35	36	167	638
	0.21	BL	27.72	16.80	22.68	5.88	6.05	28.06	107.18
3	OFD - Land Levelling	Ha	118	116	52	85	90	170	631
	0.29	BL	27.38	26.91	12.06	19.72	20.88	39.44	146.39
4	Lining of Field Channel 100m/ Ha	Ha	168	68	55	55	35	116	497
	0.27	BL	36.29	14.69	11.88	11.88	7.56	25.06	107.35
5	Farm Ponds as Water Harvesting structures( 20Mx20Mx1.5M)	Nos.	335	330	99	99	83	330	1276
	0.77	BL	206.36	203.28	60.98	60.98	51.13	203.28	786.02

Sr. No.	Activity / Unit cost	Unit Size/ BL	Bayad	Bhiloda	Dhansura	Malpur	Megharaj	Modasa	District Total
	<b>LD TOTAL</b>	<b>BL</b>	<b>424.02</b>	<b>357.16</b>	<b>187.69</b>	<b>178.54</b>	<b>184.18</b>	<b>363.59</b>	<b>1695.18</b>
<b>iii</b>	<b>Other Agriculture Infrastructure</b>								
1	Tissue Culture Labs	Nos.	8	6	4	2	2	12	34
	100.00	BL	600.00	450.00	300.00	150.00	150.00	900.00	2550.00
2	Seed Production Unit	Nos.	40	20	10	12	12	16	110
	30.00	BL	960.00	480.00	240.00	288.00	288.00	384.00	2640.00
3	Bio Fertilizer / Pesticide	Nos.	60	70	80	50	30	36	326
	63.00	BL	2835.00	3307.50	3780.00	2362.50	1417.50	1701.00	15403.50
4	Vermi Compost Unit	Nos.	18	16	14	12	8	16	84
	0.35	BL	5.04	4.48	3.92	3.36	2.24	4.48	23.52
	<b>TOTAL</b>	<b>BL</b>	<b>4400.04</b>	<b>4241.98</b>	<b>4323.92</b>	<b>2803.86</b>	<b>1857.74</b>	<b>2989.48</b>	<b>20617.02</b>
	<b>Total Agriculturue Infra</b>		<b>5482.22</b>	<b>5264.94</b>	<b>5090.81</b>	<b>3606.52</b>	<b>2612.32</b>	<b>3954.27</b>	<b>26011.08</b>
<b>C</b>	<b>Ancillary activities</b>								
<b>i</b>	<b>Food and Agro processing</b>								
1	Flour Mills	Tiny	8	8	8	8	8	9	49
	50	BL	320.00	320.00	320.00	320.00	320.00	360.00	1960.00
2	Mini Rice Mill Unit	SME	8	8	8	8	8	9	49
	3.5	BL	22.40	22.40	22.40	22.40	22.40	25.20	137.20
3	Mini Dal Mill unit	SME	17	20	17	20	17	20	111
	5	BL	68.00	80.00	68.00	80.00	68.00	80.00	444.00
4	Oil Mills-( Only Refilter &Packing)	SME	9	8	8	8	8	8	49
	5	BL	36.00	32.00	32.00	32.00	32.00	32.00	196.00
5	Potato wafers	SME	8	8	3	0	0	8	27
	3	BL	19.20	19.20	7.20	0.00	0.00	19.20	64.80
6	Fruits (Pulp Chutney etc.)	Tiny	3	2	2	2	3	2	14
	4	BL	9.60	6.40	6.40	6.40	9.60	6.40	44.80
7	Vegetables value addition unit	Tiny	2	2	3	3	3	3	16
	3	BL	4.80	4.80	7.20	7.20	7.20	7.20	38.40
8	Lime & mango Pickle Unit	Tiny	3	3	3	3	3	3	18
	7.5	BL	18.00	18.00	18.00	18.00	18.00	18.00	108.00
9	Bakery Unit	Tiny	7	3	3	3	3	8	27
	6	BL	33.60	14.40	14.40	14.40	14.40	38.40	129.60
10	Farsan, Namkeen making Unit	Tiny	4	4	4	4	4	3	23
	4	BL	12.80	12.80	12.80	12.80	12.80	9.60	73.60
11	Spice processing Unit	Tiny	5	4	3	3	4	3	22
	5	BL	20.00	16.00	12.00	12.00	16.00	12.00	88.00
12	Working Capital	25%	141.10	136.50	130.10	131.30	130.10	152.00	821.10

Sr. No.	Activity / Unit cost	Unit Size/ BL	Bayad	Bhiloda	Dhansura	Malpur	Megharaj	Modasa	District Total
	<b>TOTAL</b>		<b>705.50</b>	<b>682.50</b>	<b>650.50</b>	<b>656.50</b>	<b>650.50</b>	<b>760.00</b>	<b>4105.50</b>
<b>ii</b>	<b>Agri Ancillary-Others</b>								
1.00	Loans to PACS/FSS/LAMPs	Nos.	132.00	10.00	6.00	330.00	165.00	132.00	775.00
	10.00	BL	1122.00	85.00	51.00	2805.00	1402.50	1122.00	6587.50
2.00	Loans to MFIs	Nos.	4.00	16.00	18.00	2.00	0.00	0.00	40.00
	100.00	BL	340.00	1360.00	1530.00	170.00	0.00	0.00	3400.00
3.00	ACABC Finance	Nos.	5.00	5.00	4.00	2.00	2.00	4.00	22.00
	30.00	BL	127.50	127.50	102.00	51.00	51.00	102.00	561.00
	<b>TOTAL</b>	<b>BL</b>	<b>1589.50</b>	<b>1572.50</b>	<b>1683.00</b>	<b>3026.00</b>	<b>1453.50</b>	<b>1224.00</b>	<b>10548.50</b>
	<b>Total Ancillary Activities</b>		<b>2295.00</b>	<b>2255.00</b>	<b>2333.50</b>	<b>3682.50</b>	<b>2104.00</b>	<b>1984.00</b>	<b>14654.00</b>
	<b>TOTAL AGRICULTURE</b>		<b>51980.28</b>	<b>50152.17</b>	<b>48228.49</b>	<b>37516.16</b>	<b>40069.40</b>	<b>49106.43</b>	<b>277052.94</b>
	<b>WC-AH+F-KCC(BL)</b>		<b>11727.50</b>	<b>9473.14</b>	<b>9023.27</b>	<b>9068.01</b>	<b>7447.88</b>	<b>11474.29</b>	<b>58214.08</b>
	<b>GT Agri</b>		<b>63707.77</b>	<b>59625.31</b>	<b>57251.76</b>	<b>46584.17</b>	<b>47517.29</b>	<b>60580.72</b>	<b>335267.01</b>
<b>II</b>	<b>Micro, Small and Medium Enterprises</b>								
<b>i</b>	<b>Manufacturing Sector - Term Loans + Working Capital</b>								
1	Micro Enterprise	Nos.	40	40	40	35	25	30	210
	1.00	BL	32.00	32.00	32.00	28.00	20.00	24.00	168.00
2	Small Enterprise	Nos.	20	25	25	20	25	30	145
	25.00	BL	400.00	500.00	500.00	400.00	500.00	600.00	2900.00
3	Medium Enterprise	Nos.	45	46	45	40	35	29	240
	100.00	BL	3600.00	3680.00	3600.00	3200.00	2800.00	2320.00	19200.00
4	KVIC Loans	Nos.	40	30	40	20	30	20	180
	3.00	BL	96.00	72.00	96.00	48.00	72.00	48.00	432.00
	<b>TOTAL</b>	<b>BL</b>	<b>4128.00</b>	<b>4284.00</b>	<b>4228.00</b>	<b>3676.00</b>	<b>3392.00</b>	<b>2992.00</b>	<b>22700.00</b>
<b>iii</b>	<b>Service Sector - Term Loans + Working Capital</b>								
1	Transport Operators	Nos.	25	25	30	35	25	50	190
	10.00	BL	200.00	200.00	240.00	280.00	200.00	400.00	1520.00
2	Retail Traders	Nos.	25	30	25	30	20	60	190
	5.00	BL	100.00	120.00	100.00	120.00	80.00	240.00	760.00
3	Professional Self Empl.	Nos.	20	30	40	33	20	20	163
	5.00	BL	80.00	120.00	160.00	132.00	80.00	80.00	652.00
4	Miscellaneous	Nos.	25	20	15	10	10	25	105
	5.00	BL	100.00	80.00	60.00	40.00	40.00	100.00	420.00
	<b>TOTAL</b>	<b>BL</b>	<b>480.00</b>	<b>520.00</b>	<b>560.00</b>	<b>572.00</b>	<b>400.00</b>	<b>820.00</b>	<b>3352.00</b>
	<b>TOTAL MSME</b>		<b>4608.00</b>	<b>4804.00</b>	<b>4788.00</b>	<b>4248.00</b>	<b>3792.00</b>	<b>3812.00</b>	<b>26052.00</b>
<b>III</b>	<b>Export Credit</b>								
1	Preshipment export credit	Nos.	5	2	5	5	2	15	34

Sr. No.	Activity / Unit cost	Unit Size/ BL	Bayad	Bhiloda	Dhansura	Malpur	Megharaj	Modasa	District Total
	100.00	BL	400.00	160.00	400.00	400.00	160.00	128.00	1648.00
2	Post shipment export credit	Nos.	5	2	5	5	2	15	34
	150.00	BL	600.00	240.00	600.00	600.00	240.00	1800.00	4080.00
	<b>Total Export Credit</b>	<b>BL</b>	<b>1000.00</b>	<b>400.00</b>	<b>1000.00</b>	<b>1000.00</b>	<b>400.00</b>	<b>1928.00</b>	<b>5728.00</b>
<b>IV</b>	<b>Education</b>								
1	Education Loan	Nos.	20	9	5	5	5	34	78
	10.00	BL	160.00	72.00	40.00	40.00	40.00	272.00	624.00
2	Vocational Course	Nos.	9	9	8	0	0	26	52
	4.00	BL	36.00	36.00	32.00	0.00	0.00	104.00	208.00
3	Overseas Education	Nos.	5	1	2	0	0	9	17
	10.00	BL	40.00	8.00	16.00	0.00	0.00	72.00	136.00
	<b>TOTAL Education Credit</b>	<b>BL</b>	<b>236.00</b>	<b>116.00</b>	<b>88.00</b>	<b>40.00</b>	<b>40.00</b>	<b>448.00</b>	<b>968.00</b>
<b>V</b>	<b>Housing</b>								
1	Purchase/ construction of dwelling units (upto 20 Lakhs)	Nos.	200	600	300	400	100	300	1900
	16.00	BL	2560.00	7680.00	3840.00	5120.00	1280.00	3840.00	24320.00
2	Repairing of House	Nos.	200	150	85	68	68	340	911
	2.00	BL	320.00	240.00	136.00	108.80	108.80	544.00	1457.60
	<b>Total Housing Credit</b>	<b>BL</b>	<b>2880.00</b>	<b>7920.00</b>	<b>3976.00</b>	<b>5228.80</b>	<b>1388.80</b>	<b>4384.00</b>	<b>25777.60</b>
<b>VI</b>	<b>Renewable Energy</b>								
1	Renewal source of energy & waste utilisation/ Bio Gas plant	Nos.	17	34	17	17	31	17	133
	0.25	BL	3.40	6.80	3.40	3.40	6.20	3.40	26.60
2	Solar Pumping system (with DC motor pumpset)3HP	Nos	2	0	2	0	0	1	5
	5.13	BL	8.21	0.00	8.21	0.00	0.00	4.10	20.52
	<b>Total RE Credit</b>	<b>BL</b>	<b>11.608</b>	<b>6.80</b>	<b>11.61</b>	<b>3.40</b>	<b>6.20</b>	<b>7.50</b>	<b>47.12</b>
<b>VII</b>	<b>Others Loan</b>								
1	SHG Loans Mature	Nos.	340	425	468	136	136	340	1845
	1.50	BL	510.00	637.50	702.00	204.00	204.00	510.00	2767.50
2	SHG Loans New	Nos	143	214	122	0	97	104	680
	1.00	BL	142.80	214.20	122.40	0.00	96.90	103.70	680.00
3	Loans to JLGs	Nos.	221	85	85	85	85	289	850
	2.00	BL	442.00	170.00	170.00	170.00	170.00	578.00	1700.00
4	PMJDY Loans	Nos	340	170	170	170	170	340	1360
	0.10	BL	34.00	17.00	17.00	17.00	17.00	34.00	136.00
5	Loans to Distressed	Nos.	17	51	17	34	51	17	187
	0.05	BL	0.85	2.55	0.85	1.70	2.55	0.85	9.35



Sr. No.	Activity / Unit cost	Unit Size/ BL	Bayad	Bhiloda	Dhansura	Malpur	Megharaj	Modasa	District Total
6	Govt Sponcered SC/ST	Nos	34	85	85	85	170	170	629
	1.50	BL	40.80	102.00	102.00	102.00	204.00	204.00	754.80
7	Misc	Nos	51	34	34	34	17	85	255
	1.00	BL	40.80	27.20	27.20	27.20	13.60	68.00	204.00
	OPS Total	BL	1211.25	1170.45	1141.45	521.90	708.05	1498.55	6251.65
<b>VIII</b>	<b>Social Infrastructure involving bank credit</b>								
1	Sanitation (Toilets)	Nos.	20	50	20	100	100	20	310
	0.12	BL	1.92	4.80	1.92	9.60	9.60	1.92	29.76
2	Hospital	Nos.	2	2	1	1	1	2	9
	50.00	BL	80.00	80.00	40.00	40.00	40.00	80.00	360.00
3	School	Nos.	5	5	2	3	2	5	22
	20.00	BL	80.00	80.00	32.00	48.00	32.00	80.00	352.00
4	RO Plant	Nos.	10	5	5	3	3	10	36
	6.00	BL	48.00	24.00	24.00	14.40	14.40	48.00	172.80
	<b>Total Social Infra</b>	<b>BL</b>	<b>209.92</b>	<b>188.80</b>	<b>97.92</b>	<b>112.00</b>	<b>96.00</b>	<b>209.92</b>	<b>914.56</b>
<b>TOTAL PRIORITY SECTOR</b>			<b>62135.99</b>	<b>64758.51</b>	<b>62137.06</b>	<b>64758.22</b>	<b>59331.47</b>	<b>48670.26</b>	<b>46500.45</b>
	@ Excluding WC-AH&F		11727.50	9473.14	9023.27	9068.01	7447.88	11474.29	58214.08
	@@ Including WC-AH&F		73864.55	74231.36	68354.74	57738.27	53948.34	72868.69	401005.94

**ANNEXURE II**  
**AN OVERVIEW OF FLOW OF GROUND LEVEL CREDIT -AGENCY WISE /**  
**SECTOR WISE DISTRICT: ARAVALLI**

(₹Lakh)

		2019-20		2020-21		2021-22		2022-23
Sr. No .	AGENCY/ TYPE OF LOAN	Target	ACHIEV	Target	ACHIEV	Target	ACHIEV	Target
	CROP LOAN							
A	CB	112957	52271.85	98784.36	79420.01	97348.41	83856.51	80579.00
	CCB/SCB	80879	48969.00	0	51279.00	46420.40	52798.22	50000.00
	SCARDB	430	0	2651.85	0	0.00		
	RRBs	22214	7170.74	10979.59	8599.27	14811.45	10832.33	11025.00
	Pvt. Banks	10632	2712.88	42644.85	2385.37	11371.00	2117.83	2161.00
	sub total	<b>227112</b>	<b>111124.47</b>	<b>155060.65</b>	<b>141683.65</b>	<b>169951.26</b>	<b>149604.89</b>	<b>143765.00</b>
B	TERM LOAN (MT+LT)							
	CB	166715	13145.67	29557.25	16718.46	63002.41	27773.98	74023.63
	CCB/SCB	103226	1865	0	3790	15203	7924.94	31641
	SCARDB	432	0	793.45	0	4108.99		
	RRBs	26130	212.76	3285.19	342.43	4635.47	637.94	6377.08
	Pvt. Banks	19970	14719.13	12759.81	15844.4	11805.86	16466.86	16830
	sub total	<b>316473</b>	<b>29942.56</b>	<b>46395.7</b>	<b>36695.29</b>	<b>98755.73</b>	<b>52803.72</b>	<b>128871.71</b>
C	TOTAL AGRICULTURAL CREDIT (A+B)							
	CB	279672	65417.52	128341.61	96138.47	160350.82	111630.49	154602.63
	CCB/SCB	184105	50834.00	0	55069.00	61623.40	60723.16	81641.00
	SCARDB	862	0.00	3445.3	0.00	4108.99	0.00	0.00
	RRBs	48344	7383.50	14264.78	8941.70	19446.92	11470.27	17402.08
	Pvt. Banks	30602	17432.01	55404.66	18229.77	23176.86	18584.69	18991.00
	Sub total	<b>543585</b>	<b>141067.03</b>	<b>234295.61</b>	<b>183060.86</b>	<b>268706.99</b>	<b>202408.61</b>	<b>272636.71</b>
D	NON FARM SECTOR							
	CB	41403	8212.3	9298.24	14002.39	14678.49	20410.01	24649.5
	CCB/SCB	2386	840.5	0	193	561.71	1996.8	8784
	SCARDB	1480		249.61	0	0		
	RRBs	1998	240.56	1033.48	456.37	1055.69	1285.22	1480
	Pvt. Banks	6615	11683.815	4014.01	4495.29	9498.21	9489.02	5140
	sub total	<b>53882</b>	<b>20977.175</b>	<b>14595.34</b>	<b>19147.05</b>	<b>25794.1</b>	<b>33181.05</b>	<b>40053.5</b>
E	OTHER PRIORITY SECTORS							
	CB	65335	2834.5	6685.18	2080.24	3350	48.89	1022.5
	CCB/SCB	3499	140.55	0	13	62	1320.66	3555
	SCARDB	635		179.46	0	0		0
	RRBs	2085	789.56	3293.32	8.85	948	282.25	142
	Pvt. Banks	5267	13406.19	7287.01	7854.04	9826.01	1153.73	758
	Sub.Total	<b>76821</b>	<b>17170.8</b>	<b>17444.97</b>	<b>9956.13</b>	<b>14186.01</b>	<b>2805.53</b>	<b>5477.5</b>
	GRAND TOTAL (C+D+E)	<b>674288</b>	<b>179215.01</b>	<b>266335.92</b>	<b>212164.04</b>	<b>308687.10</b>	<b>238395.19</b>	<b>318167.71</b>

ANNEXURE III

AGENCY WISE / SUB SECTOR-WISE DETAILS OF GROUND LEVEL CREDIT DISBURSEMENTS UNDER AGRICULTURE AND ALLIED ACTIVITIES

STATE : GUJARAT

NAME OF THE DISTRICT: ARAVALLI

(₹In lakh)

SR.N O.	Particulars Agency/ Activity	2019-20 ARAVALLI				2020-21 ARAVALLI				2021-22 ARAVALLI				2022-23 (TARGET) ARAVALLI			
		CBs	COOPs.	RRBs	Total	CBs	COOPs.	RRBs	Total	CBs	COOPs.	RRBs	Total	CBs	COOPs.	RRBs	Total
I	Crop loan	112957.00	81309.00	32846.00	227112.00	89354.09	49838.89	15867.67	155060.65	108719.41	46420.40	14811.45	169951.26	82740.00	50000.00	11025.00	143765.00
ii	Term Loans																
a	MI	40075.00	77300.00	2588.00	119963.00	15073.06	2700.03	1467.27	19240.36	18110.85	3435.00	1200.00	22745.85	11654.00	1000.00	1000.00	13654.00
b	LD	30050.00	110.00	1435.00	31595.00	4773.56	962.77	719.60	6455.93	16014.35	4300.00	1095.00	21409.35	16600.00	3200.00	1100.00	20900.00
c	FM	20060.00	13848.00	4176.00	38084.00	21546.64	6575.24	1177.51	29299.39	17047.00	2000.99	777.12	19825.11	37468.00	1840.00	780.00	40088.00
d	P&H	15016.00	1980.00	4360.00	21356.00	717.89	91.60	9.60	819.09	2271.81	9288.00	3822.00	15381.81	2300.00	8464.00	3945.00	14709.00
e	DD	34030.00	10060.00	1069.00	45159.00	9119.45	3552.93	988.63	13661.01	18581.52	8344.00	2475.35	29400.87	47759.00	9545.00	1648.00	58952.00
f	Poultry	0.00	360.00	10000.00	10360.00	0.00	0.00	0.00	0.00	785.34	31.00	12.00	828.34	846.00	36.00	15.00	897.00
g	S/G/P	0.00	0.00	3940.00	3940.00	81.00	0.00	0.00	81.00	67.00	3400.00	6800.00	10267.00	68.00	2810.00	4450.00	7328.00
h	Fisheries	0.00	0.00	3550.00	3550.00	302.72	0.00	0.00	302.72	118.50	800.00	600.00	1518.50	146.00	400.00	400.00	946.00
I	F/WLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8910.00	1200.00	1340.00	11450.00	9100.00	1000.00	1360.00	11460.00
j	SMY	27484.00	0.00	8500.00	35984.00	2811.97	327.50	0.00	3139.47	932.00	609.00	72.00	1613.00	1967.00	614.00	116.00	2697.00
k	BG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.00	42.00	719.01	791.01	40.00	48.00	400.00	488.00
l	Sericulture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	821.00	534.00	670.00	2025.00	340.00	314.00	129.71	783.71
m	Others	0.00	0.00	6482.00	6482.00	14372.68	14210.07	3049.58	31632.33	849.20	550.00	80.80	1480.00	1200.00	200.00	100.00	1500.00
	Sub- Total	166715.00	103658.00	46100.00	316473.00	68798.97	28420.14	7412.19	104631.30	84538.57	34533.99	19663.28	138735.84	129488.00	29471.00	15443.71	174402.71
	Grand Total I+II	216615.00	127409.00	349319.00	543585.00	158153.06	78259.03	23279.86	259691.95	193257.98	80954.39	34474.73	308687.10	212228.00	79471.00	26468.71	318167.71

Annexure IV					
Indicative Unit Costs (for major activities of the district)					
Activity	Unit cost	Unit size	Activity	Unit cost	Unit size
WATER RESOURCES			DAIRY DEVELOPMENT		
Dug wells	2,59,000	Nos.	Jersey Crossbred cows	91,000	2
Bore well / Tube well (1.8x0.6)	1,27,932	Nos.	Mehsanai Buffaloes	1,30,000	2
Drip irrigation System Lateral size 16mm)	1,27,392	Nos.	Gir Cow	1,20,000	2
Lift Irrigation	1,30,000	Ha	Draught Animal -1 Gir Bullock	35,000	2
Sprinkler irrigation HDPE Pipe coupler size 90mm	45,562	Ha	Bullock Cart / Camel Cart	35000 to 50000	Nos.
LAND DEVELOPMENT			POULTRY DEVELOPMENT		
Bunding & soil conservation	21,000	Ha.	Broilers	1,35,000	300 Birds
Land reclamation	76,800	Ha.	Layers	1,20,000	300 Birds
Farm Ponds & C.D.	77,300	Ha.	GOATERY		
Rain Harvesting	54,200	Ha.	Goat rearing	45,000	10 + 1
Farm ponds	54,200	Ha.	Sheep	75,000	20 + 1
Vermi compost	20,000	No.			
			Fisheries		
PLANTATION / HORTICULTURE			Construction of New Fish Pond	7,00,000	Ha.
Mango 5x5	2,17,000	Ha.	Motorisation of traditional craft by 4 stroke engine	1,60,000	Ha.
Lime	1,45,000	Ha.	Renovation of old Ponds	3,50,000	Nos.
Sapota	1,28,603	Ha.	Fibre Glass boat without board engine	6,00,000	Nos.
Pomegranate	1,44,000		Solar Fish Dryer	1,50,000	Nos.
Guava	1,10,050	Ha.	Storage godown / Market yards		
Custard apple	1,14,000	Ha.	Market yards (1000 MT)	1,50,00,000	Nos.
Aonla	90,000	Ha.	Rural godowns (300 MT)	45,00,000	Nos.
Coconut	128000		Rural Godowns ( 200 MT)	30,60,000	Nos.
Ber irrigated	45,000 for 1st year	Ha.			
Dragon fruit	719000	Ha.	Bio-gas		
Creeper Vegetables	45,000	Ha.	Bio Gas (2 Cum /day)	25,000	Nos.
Med. Plants (AV, SM, Patchouli)	70,000	Ha.	Other allied activities		
Others (Onion, Binjal, Tomato etc.)	70,000	Ha.	Camel single	35,000	Nos.
Nursery	4,24,000	Ha.	Bullocks carts	60,000	Nos.
FARM MECHANIZATION			Land purchase/ Misc.	3,00,000	
Tractors 40 HP to 50 HP	7,70,000	Nos.			
Power tillers	2,00,000	Nos.	FORESTRY AND WASTE LAND DEVELOPMENT		
Rotavators	1,20,000	Nos.	Eculaptyus	4,00,000	Ha.
Seed drill	40,000	Nos.	Melia Dubia	71,000	Ha.
Thresher	2,00,000	Nos.	Jatropha	71,000	Ha
Veg Transplanter	87,000	Nos.	Others (Bamboo)	42,700	Ha.
Note : Above-mentioned unit costs are only indicative and based on the viability of the project, the banks may decide about the unit cost / loan amount.					

Scale of Finance for major crops fixed by State Level Technical Committee (SLTC) for year 2022-23		
Sr. No	CROP NAME	SCALE OF FIANNCE
<b>Annexure V-A</b>		
1	GROUNDNUT	55000
2	TUR	33000
3	BLACK GRAM	25000
4	GREEN GRAM	25000
5	PADDY/IRRIGATED	50000
6	PADDY/ NON IRRIGATED	28000
7	HY.MAIZE	35000
8	HY.BAJRA	25000
9	VEGETABLE	55000
10	HY.COTTON(NON IRRIGATED)	25000
11	HY.COTTON( IRRIGATED)	70000
12	SUGAR CANE	70000
13	FENNEL	40000
14	COBBIZ/FLOWER	65000
15	CASTOR IRRIGATED	50000
16	CASTOR NON IRRIGATED	15000
17	SUN FLOWER	15000
18	ZINGER	35000
19	TURMERIC	35000
20	RATALU	35000
21	TOBBECCO	30000
22	HY.BAJRA BIJ PLOT	25000
23	HY.CASTOR BIJ PLOT	50000
24	HY.COTTON BIJ PLOT	100000
25	SESAMUM	25000
26	TOMMETO	100000
27	PEACH/POMOGRANED/BOR	21000
28	GRAM	30000
29	WHEAT IRR	45000
30	POTETTO HY-YEILD PROCESSING	125000
31	POTETO VEGETABLE	70000
32	CUMIN	30000
33	GARLIC	30000
34	ONION (IRRI)	40000
35	MUSTURD/ ISABGUL/ SARSAV	30000
36	GREEN GRAM(SUMMER)	25000
37	WHAT BIJ PLOT	45000
38	GROUNDNUT SUMMER	55000
39	BANANA	90000
40	PAPIYYA	50000
41	BAJRA (SUMMER)	25000
42	JUWAR	30000
43	SOYABIN	35000
44	GAVAR	35000
45	ONION(BIJ PLOT)	18000
<b>Annexure V-B- AH/Poultry/SGP/Fisheries</b>		
46	PASHUPALAN(UNIT-1)	15000
47	POULTRY (100 UNIT)	15000
48	FISHRIES(1 ELE.BOAT)	15000

### Abbreviations

A & FPS	Agro & Food Processing Sector	GEB	Gujarat Electricity Board	NHB	National Horticulture Board
AC & ABC	Agri.Clinic and Agri Business Centres	GEDA	Gujarat Energy Development Agency	NHM	National Horticulture Mission
AH	Animal Husbandry	GIC	General Insurance Corporation	NMPB	National Medicinal Plant Board
APEDA	Agricultural & Processed Food Products Export Development Authority	GLC	Ground Level Credit	NOVOD	National Oilseeds & Vegetable Oil Board
APMC	Agriculture Produce Marketing Committee	GLDC	Gujarat Land Dev. Corporation	NPOF	National Project on Organic Farming
BF BC	Business Facilitator ,Business Correspondents	GOG	Government of Gujarat	P & H	Plantation & Horticulture
BL	Bank Loan	GOI	Government of India	PACS	Primary Agriculture Credit Society
BWSC	Brackish Water Shrimp Culture	GSCARDB	Gujarat State Cooperative Agriculture and Rural Development Bank	PHC	Primary Health Centre
CBs	Commercial Banks	GSCDC	Gujarat Scheduled Caste Dev. Corp.	PLP	Potential Linked Credit Plan
DAHD	Dept. of Animal Husbandry & Dairying Scheme	GSFC	Gujarat State Finance Corporation	PU	Physical Units
DAHO	District Animal Husbandry Officer	GWRDC	Gujarat Water Resource Dev. Corp.	RBI	Reserve Bank of India
DAO	District Agriculture Officer	ha	hectares	RIDF	Rural Infrastructure Development Fund
DCB	Demand Collection Balance	HP	Horse Power	RIF	Rural Innovation Fund
DCCB	District Central Cooperative Bank	HYV	High Yielding Variety	RNFS RKVY	Rural Non Farm Sector Rashtriya Krishi Vikas Yojana
DCP	District Credit Plan	IFDP	Integrated Forestry Dev.Programme	RRBs	Regional Rural Banks
DDM	District Development Manager	IGWDP	Indo German Watershed Development Programme	SACP	Service Area Credit Plan
DDO	District Development Officer	IRDP	Integrated Rural Development Programme	SAMIS	Service Area Monitoring and Information System
DIC	District Industries Centre	ISB	Industries, Services, Business	SAMRU- DDHI	Service Area Monitoring & Review Using Developed Data Handling Implements
DLCC	District Level Coordination Committee	JFM	Joint Forest Management	SCBs	State Cooperative Banks
DLMRC	District Level Monitoring and Review Committee	JLGs	Joint Liability Groups	SCC	Swarojgar Credit Card
DLTC	District Level Technical Committee	KCC	Kisan Credit Card	SHG	Self Help Groups
DRDA	District Rural Development Agency	KVIB	Khadi & Village Industries Board	SIP	Salinity Ingress Prevention Projects
DRI	Differential Rate of Interest	KVIC	Khadi & Village Industries Commission	SISI	Small Industries Service Institute
FFDA	Fisheries Farmers Development Agency	KVK	Krishak Vigyan Kendra	SJSRY	Swarn Jayanti Shahari Rojgar Yojana
FI	Financial Inclusion	LAMPS	Large Sized Adivasi Multi Purpose Society	SMPB	State Medicinal Plant Board
FIF	Financial Inclusion Fund	LBR	Lead Bank Return	SRTWO	Small Road & Water Transport Operators
FIPF	Farm Innovation Promotion Fund	LIS	Lift Irrigation Scheme	SSIs	Small Scale Industries
FITF	Financial Inclusion Technology Fund	MI	Minor Irrigation	TDF	Tribal Development Fund
FLCCs	Financial Literacy and Credit Counseling Centres	NAIS	National Agricultural Insurance	UPNRM	Umbrella Programme for Natural Resource Management
FTTF	Farmers Technology Transfer Fund	NATUECO Farming	Natural and Ecological Farming	VAs	Voluntary Agencies
FWPC	Fresh Water Prawn Culture	NFS	Non Farm Sector	WDF	Watershed Development Fund

<b>GBCDC</b>	<b>Gujarat Backward Class Development Corporation</b>	<b>NGOs</b>	<b>Non Governmental Organization</b>	<b>SF/MF</b>	<b>Small &amp; Marginal Farmers SS</b>
<b>PMFBY</b>	<b>Pradhan Mantri Fasal Bhima Yojana</b>				

## गुजरात के जिला विकास प्रबंधक

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## NABVENTURES Limited

A wholly owned Subsidiary of NABARD

NABVENTURES Ltd., a Company registered under the Companies Act, 2013, with a paid-up capital of INR 25 crore, is the Sponsor and Investment Manager of NABVENTURES Fund-I, a SEBI-registered Category II Alternative Investment Fund (AIF), with a base corpus of INR 500 crore and greenshoe option of INR 200 crore.

**Investment focus:** Start-ups/MSMEs operating in/with

► **Sectors:** Agri-tech, rural fin-tech, food-tech, health-tech and edu-tech, with a rural focus

► **Stage:** Pre-Series A (INR 5-20 cr.) & Series A (INR 20-50 cr.)

**Model:** asset-light, technology-led models, which can be quickly scaled up across geographies

As on 31st March 2022:

► **Corpus raised:** INR 598 crore

► **Investments made:** INR 148.21 crore in 9 start-ups

**Registered Office:** NABARD, 2nd Floor, A Wing, Plot No. C-24, G Block, BKC, Bandra (East), Mumbai-400051

✉ e-mail: nabventure@nabard.org ☎ Phone: 91-22-26539149 🌐 www.nabventure.in



## NABSAMRUDDHI FINANCE Limited

A Subsidiary of NABARD

"The objective of NABSAMRUDDHI is to provide credit facilities to legal entities for the promotion, expansion, commercialisation and modernisation in non-farm & agri allied activities including microfinance, MSME, housing, education, transport, etc."

**Corporate Office:**

NABARD, Gr. Floor, D Wing, Plot No. C-24, G Block, BKC, Bandra (East), Mumbai-400051

Ph: 022-2653 7091/9693

✉ e-mail: nabsamruddhi@nabard.org

### FOCUS SEGMENTS

Green Finance & Wellness (Renewable Energy, Electric Vehicle, Healthcare, WASH) Fabrics & textiles, Handicrafts

### OTHER SEGMENTS

► Small Business  
► Microfinance  
► Transport  
► Housing  
► Education  
► Allied Agriculture  
► Agri/Food processing

**Registered Office:**

NABARD, Regional Office 1-1-61, RTC 'X' Road, P.B. No. 1863 Hyderabad- 500020, Telangana

Ph: 040-23241155/56

🌐 www.nabsamruddhi.in



## NABFOUNDATION

Leveraging the power of convergence

NABFOUNDATION is a wholly owned, not for profit, subsidiary of NABARD, established under Sec 8 of Companies Act, 2013. The organization draws its strength and experience from the thousands of development projects grounded by its parent body, NABARD, in multiple domains over nearly last four decades.

### What does NABFOUNDATION want from you ?

#### IF YOU ARE AN INDIVIDUAL

Reach out to us with your ideas about development projects which you believe need to be implemented. We really look forward to your fresh ideas

#### IF YOU ARE A CSR UNIT

Of a corporate and believe that there is a scope for collaborating with us to have access to the vast network of resources of NABARD in a structured manner, just give us a call

#### IF YOU ARE A CIVIL SOCIETY ORGANIZATION/ NGO

With an idea whose time you think has come and have not been able to find willing partners, reach out to us

#### IF YOU ARE WITH THE GOVERNMENT

And believe that there is a need for reimagining implementation of your Central or State government projects, allow us to be a part of your vision



My Pad | My Right  
• Health • Cleanliness • Livelihood

**Registered Office:** NABARD, 2nd Floor, B Wing, Plot No. C-24, G Block, BKC, Bandra (East), Mumbai-400051

✉ e-mail: nabfoundation@nabard.org

☎ Phone: 91-22-2653 9404/9054

🌐 www.nabfoundation.in



## NABKISAN Finance Limited

A Subsidiary of NABARD

- › Largest lender in FPO space
- › Present in 20+ States
- › 1400+ FPOs credit linked
- › Collateral free lending at affordable rates
- › Financing FPOs through
  - ▶ Working Capital
  - ▶ Term loan
  - ▶ Pledge Financing (eNWR)
- › Term lending for Corporates/ NBFCs/ MFIs
- › Soft loans for Agri Startups

### Corporate Office

C/o NABARD, Mumbai

✉ e-mail:corporate@nabkisan.org

☎ Phone:022- 26539620/26539415

🌐 www.nabkisan.org

### Registered Office

C/o NABARD, Tamil Nadu RO, Chennai

✉ e-mail:finance@nabkisan.org

☎ Phone:044- 28270138/28304658

🌐 Web-portal:krishimanch.co.in



## NABARD Consultancy Services Private Limited [NABCONS]

A wholly owned Subsidiary of NABARD

ISO-9001:2015 COMPANY

### OFFERS

**CONSULTANCY AND ADVISORY SERVICES**

Pan India  
Presence with  
offices in 31  
States/UTs

### 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 Development
- › Infrastructure Monitoring
- › Climate Change

### Registered Office

NABARD, Plot No. C-24,  
G Block, BKC, Bandra (East)  
Mumbai-400051, Ph: 022-26539419

✉ e-mail:headoffice@nabcons.in

### Corporate Office

NABARD Tower, 7th floor  
Rajendra Place, New Delhi -110125  
Ph: 011-25745103/07

🌐 www.nabcons.com



## NABFINS Limited

A Subsidiary of NABARD

- › A Non Deposit taking Systemically Important NBFC – MFI with a vision to become a model MFI in the country
- › 63% of shares held by NABARD, with other shareholders being Government of Karnataka and Public Sector Banks
- › Mission - To be a trusted client centric financial institution advancing hassle free services to the low income households and the unorganised sector
- › The company has a range of financial products and services including financing of SHGs in partnership with NGOs and JLGs directly through its branches
- › Operating across in 16 States of India and touching lives of more than 5.50 lakh households with a commitment towards their socio-economic empowerment and furthering the cause for financial inclusion

**Registered Office:** #3072, 14th Cross, K R Road, Banashankari 2nd stage, Bengaluru - 560 070, Karnataka, India

✉ e-mail: ho@nabfins.org

☎ Phone: 080 2697 0500

🌐 www.nabfins.org



## NABSanrakshan Trustee Private Limited, A wholly owned Subsidiary of NABARD

Building Trust for Rural Prosperity

### Corporate Office

NABARD, Plot No. C-24,  
G Block, BKC, Bandra (East)  
Mumbai-400051

Ph:022-26539243/26539241

e-mail:ho@nabsanrakshan.org

- › Offers credit guarantee through the Trusts under its Trusteeship
- › Two sovereign Credit Guarantee Schemes offered:
  - ▶ FPO Financing
  - ▶ Under Animal Husbandry Infrastructure Development Fund (AHIDF)
- › Credit guarantee given against the credit offered by the Eligible Lending Institutions registered under the Scheme