



संभाव्यतायुक्त ऋण योजना 2023-24

Potential Linked Credit Plan 2023-24

महिसागर जिला

MAHISAGAR 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 ऋण योजना

POTENTIAL LINKED CREDIT PLAN
2023 - 24

जिला : महीसागर
DISTRICT : MAHISAGAR
STATE : GUJARAT



NABARD

गाँव बढे तो >> देश बढे
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

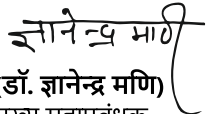
कृषि संवर्धन हेतु वित्तीय और गैर-वित्तीय सहयोगों के माध्यम से कृषि और ग्रामीण विकास के संवर्धन के लिए नाबार्ड को अधिदेश प्राप्त है। ग्रामीण समृद्धि हेतु हमारे अधिदेश और मिशन के अनुसार, जिले में उपलब्ध प्राकृतिक संपदा और आधारभूत सुविधाओं के मद्देनजर प्राथमिकता प्राप्त क्षेत्र की विभिन्न गतिविधियों के 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

INDEX		
Sr. No	Particulars	Page No.
	Executive Summary	i
	Sector / Sub Sector wise Projection : 2023-24 (Appendix A&B)	iii
	District Profile along with the map of the District	v
	Banking Profile	ix
	Methodology of Preparation of Potential Linked Credit Plans (PLPs)	xi
1	Important Policies & Developments	1
2	Credit Potential for Agriculture	
2.1	Farm Credit	
2.1.1	Crop Production, Maintenance and Marketing	15
2.1.2	Water Resources	19
2.1.3	Farm Mechanization	22
2.1.4	Plantation and Horticulture including Sericulture	25
2.1.5	Forestry and Waste Land Development	28
2.1.6	Animal Husbandry - Dairy	32
2.1.7	Animal Husbandry - Poultry	36
2.1.8	Animal Husbandry - Sheep, Goat, Piggery, etc.	39
2.1.9	Fisheries	41
2.1.10	Farm Credit and Others - Bullocks, Bullock-carts, two wheelers, etc.	44
2.1.11	Integrated Farming System	46
2.2	Agriculture Infrastructure	
2.2.1	Construction of Storage and Marketing Infrastructure (warehouses/godowns, market yards, silos, cold storage units/ cold chains)	49
2.2.2	Land Development, Soil Conservation and Watershed Development	52
2.2.3	Agri. Infrastructure – “Others” <ul style="list-style-type: none"> • e-NAM • Tissue culture • Agri “bio-technology” • Seed production • Bio-pesticides/ fertilizer • Vermi-composting 	54
2.3	Agriculture - Ancillary Activities	
2.3.1	Food and Agro Processing	57
2.3.2	Agri. Ancillary Activities – Others <ul style="list-style-type: none"> • Loans to Co-op. Societies of farmers for disposing of their produce • Agri-clinic/ Agri-Business Centres (ACABC) • Loans to PACS/ FSS/ LAMPS • Loans to MFIs for on-lending • Credit Potential for Others - Loans to SHGs/ JLGs, Loans to distressed persons to prepay non-institutional lenders, 	59
3	Credit Potential for Micro, Small and Medium Enterprises (MSME)	64
4	Credit Potential for Export Credit, Education and Housing	67
5	Credit Potential for Infrastructure	
5.1	Infrastructure - Public Investments	71
5.2	Social Infrastructure involving bank credit	74

5.3	Renewable energy	76
6	Informal Credit Delivery System	78

	Annexures	
Annexure-I	Activity-wise & Block-wise Physical and Financial Projections - 2022-23	81
Annexure-II	An overview of Ground Level Credit Flow – Agency-wise and Sector-wise - 2019-20, 2020-21, 2021-22, and target for 2022-23	89
Annexure-III	Sub-sector-wise and Agency-wise Credit Flow under Agriculture and allied activities - - 2019-20, 2020-21, 2021-22, and target for 2022-23	90
Annexure-IV	Indicative unit costs (for major activities of the district) as arrived at by NABARD for its internal use	91
Annexure-V	Scale of Finance for major crops fixed by District Level Technical Committee (DLTC) for 2021-22	93
	List of Abbreviations	

EXECUTIVE SUMMARY

A. Introduction

Potential Linked Credit Plans (PLPs) are a step towards decentralized credit planning with the basic objective of mapping the existing potential for development through bank credit.

Mahisagar district is an important district in North Central Gujarat region. Mahisagar is primarily an agricultural district with paddy, maize as its predominant crops. The other major crops cultivated are wheat, pulses, groundnut, tobacco, etc. About 77% of land holdings are with small and marginal farmers and the average size of the holdings is 2 Ha.

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 **₹125442.81** lakh, of which, Crop Production sector has a major share of 54 % at **₹67171.67 lakh**. Term loan under agriculture is assessed at **₹33808.67 lakh** while provision for Working capital has been made of **₹10245.38 lakh**. Under MSME, **₹5472.00 lakh** has been assessed as potential forming 4 % and balance at **₹8745.09 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:

B. Sector-wise comments on major sectors

1. Crop Production, Maintenance and Marketing

Provision of quality inputs i.e. seeds, fertilizers, pesticides along with suitable training support to farmers needs to be given. There is a need to set up organized sorting, grading, cleaning, packaging facilities to help channelize farm produce for marketing purpose. There is a scope for taking up high value crops and vegetables which will give higher income to small and marginal farmers.

2. Water Resources and Land Development

There is a need for greater focus on water resource management for maintaining ground water level. Farmers may adopt Drip and Sprinkler irrigation system.

3. Farm Mechanisation

Increased bank credit should flow for purchase of different farm machineries like mini tractors, paddy transplanters, threshers, etc. This will increase their productivity and also reduce drudgery.

4. Plantation and Horticulture

Area under Horticulture crops is on the rise. Vegetables cultivation and Floriculture may be encouraged with processing and market infrastructure. Department of Horticulture may like to refer the Wadi model of NABARD which assists in substantially increasing the income level of tribals.

5. Animal husbandry

Dairy is the second largest economic activity after agriculture. Large Milk processing capacity of Panchmahal Dairy Union Ltd. may be taken as an opportunity for earning of farmers and scope for business by banks. Animal Husbandry, particularly dairy is the most suitable subsidiary occupation.

6. MSME

The process of setting up industrial area in Virpur and Balasinore blocks is in progress. These advantages make it one of the most conveniently located district in Gujarat in terms of its potential for new and innovative experimentation in agro-horticultural sectors, food processing industry, agro-based chemical and pharmaceutical industry, organic fertilizers

industry, rubber and plastics industry. Banks should step up their lending to MSME sector including provision of adequate Working Capital assistance.

C. Highlights of Developments, initiatives taken, achievements, specific prescriptions etc.

Wadi Model

NABARD, as its initiative on Natural Resources Management, has supported wadi development for 1000 tribal families in the district. 'WADI' model is holistic in approach, addressing production, processing and marketing of produce and other livelihood needs. Farmers' Producers Organizations (FPOs) are being formed to provide forward linkages for processing and marketing of various produce from Wadi farmers. This has resulted in tribals planting fruit and vegetable crops, increase their standard of living and checking their migration to cities.

D. Thrust areas for 2023-24

The PLP document, besides discussing the developmental initiatives of Government of India and Government of Gujarat in the fields of agriculture, horticulture and infrastructure, lays emphasis on the specific thrust areas that call for collective participation of all stakeholders in the district to firm up the credit plan and to work towards achievement of targets for 2023-24. The goal of doubling of farmers' income can be achieved with the help of following objectives:

- a) Adoption of High Tech Agriculture by the farmers
- b) Irrigation with focus on water-use-efficiency "Per drop more crop"
- c) Providing of quality seeds, fertilisers and increasing awareness of farmers regarding scientific agricultural practices
- d) Ensuring capital formation in agriculture by financing potential sectors mainly Farm Mechanisation, Dairy and Food and Agro processing
- e) Increasing investments in warehouses and cold chains
- f) Setting-up of agro & horticultural produce processing units on priority basis
- g) Improvement in CD ratio of the district & coverage of all eligible farmers under KCC
- h) Promotion of Joint Liability Groups (JLGs) and ensuring their credit linkage
- i) Capacity building of SHGs and upscaling of SHG linkage
- j) Implementation of Area Development Schemes
- k) Formation of Farmer Producers Organisations in the district
- l) Strengthening of PACS as Multi Service Centres

E. Conclusion

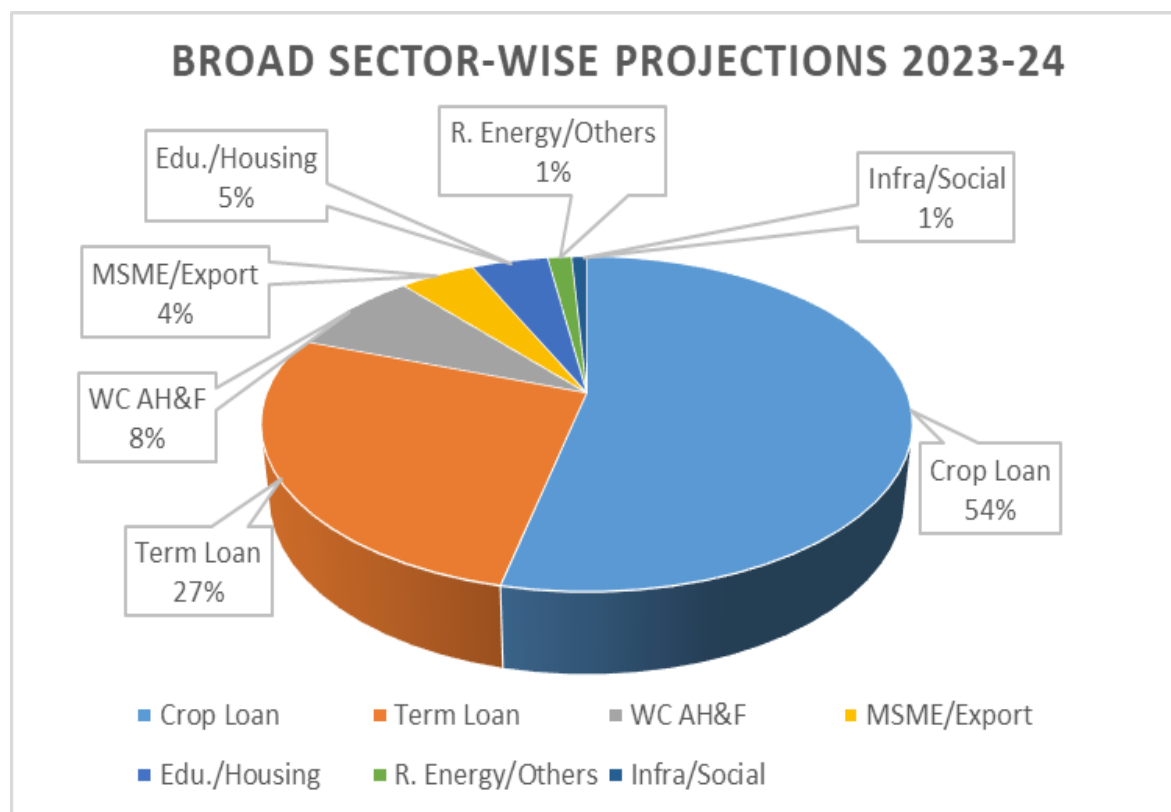
The major driver of private sector capital formation is investment credit. Immediate thrust is required to raise its share in the total agriculture credit. The document, has therefore, been prepared with emphasis on accelerating the pace of capital formation in agriculture and allied sectors. As per goal set up by Government of India doubling of farmers' income by the year 2022 has to be achieved with a strategy to enhance the Collectivization of Agriculture produce. This goal can be achieved with coordinated efforts of all the stakeholders and the Potential Linked Credit Plan for FY 2023-24 will certainly help in further boosting the creation of necessary infrastructure for storage and grading facilities, primary processing of agri-products, agri-transportation and marketing etc for securing rural prosperity of the district.

Appendix A
BROAD SECTOR-WISE PROJECTIONS – 2023-24

District : Mahisagar

(₹Lakh)

Sr. No.	Particulars	PLP projections 2023-24
A.	Farm Credit	
i	Crop Production, Maintenance and Marketing	67,171.67
ii	Term Loans for Agriculture and allied activities	23,081.46
	Sub total	90,253.13
B.	Agriculture Infrastructure	7,112.61
C.	Agriculture Ancillary Activities	3,614.60
D.	Working Capital –AH & F	10,245.38
I	Credit Potential for agriculture (A+B+C+D)	1,11,225.72
II	Micro, Small & Medium Enterprises (MSME)	5,472.00
III	Export Credit	152.00
IV	Education	1,692.00
V	Housing	3,992.00
VI	Renewable Energy	357.41
VII	Credit Potential for others	1,417.04
VIII	Social Infrastructure involving bank credit	1,134.64
	Total Priority Sector (I to VIII)	1,25,442.81



Appendix B

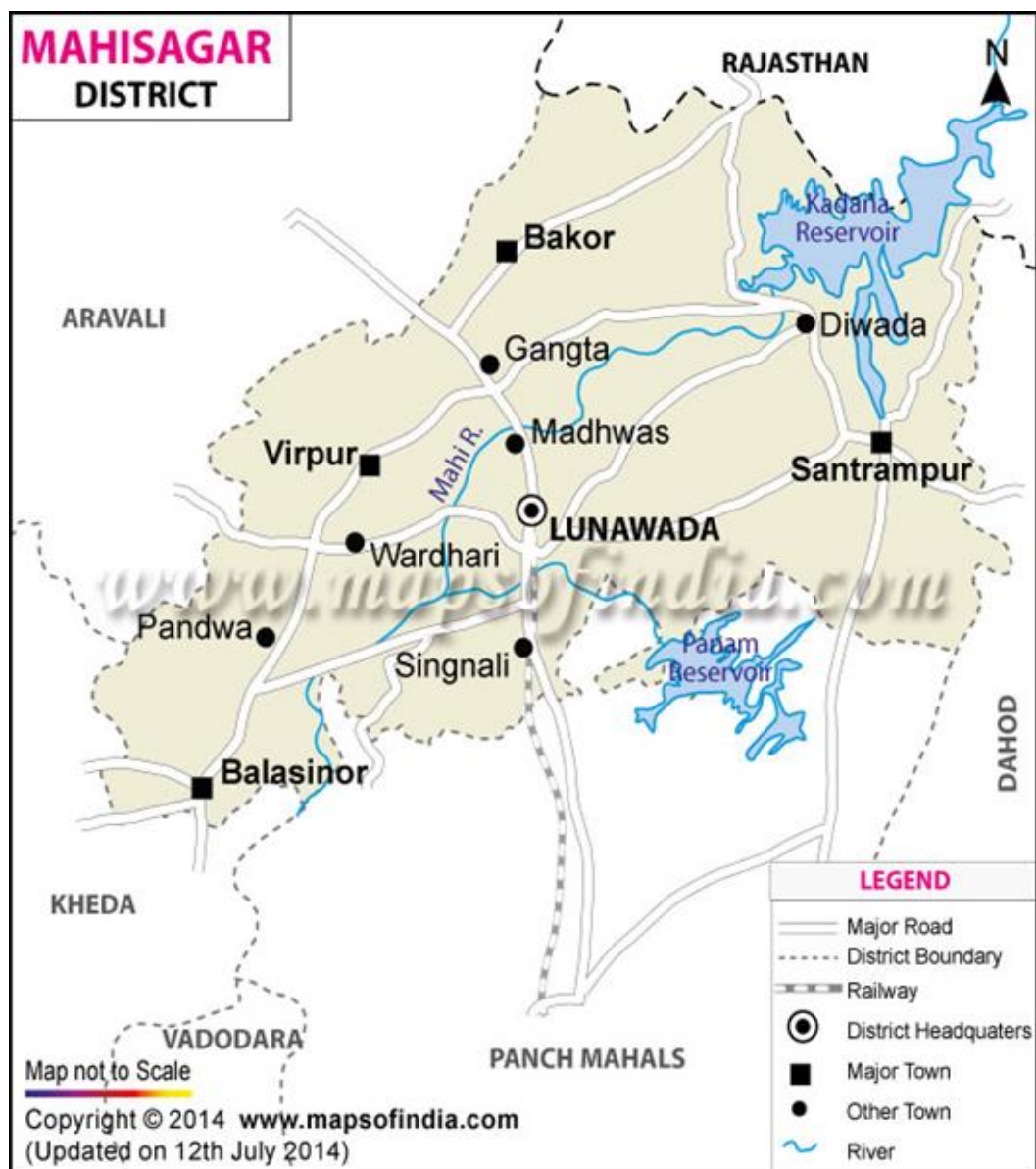
Summary of Sector /sub-sector wise PLP projections – 2023-24

District: Mahisagar

State: Gujarat
(₹Lakh)

Sr. No.	Particulars	PLP projections 2023-24
I	Credit Potential for Agriculture	
A.	Farm Credit	
i	Crop Production, Maintenance and Marketing	67171.67
ii	Water Resources	4996.15
iii	Farm Mechanization	1910.40
iv	Plantation and Horticulture including sericulture	4592.70
v	Forestry and Wasteland Development	524.41
vi	Animal Husbandry -Dairy	9048.16
vii	Animal Husbandry -Poultry	404.44
viii	Animal Husbandry –Sheep, Goat, Piggery, etc.	442.80
ix	Fisheries	180.16
x	Farm Credit Others – Bullocks, carts, two wheelers etc.	982.24
	Sub Total	90253.13
B	Agriculture Infrastructure	
i	Construction of storage facilities and Marketing Infrastructure (warehouses/godowns, market yards, silos, cold storage units / cold chains)	1282.46
ii	Land Development , Soil Conservation, Watershed Development	1072.23
iii	Agri Infrastructure Others (Tissue culture, Agri bio-technology, Seed production, Bio-pesticides / fertilisers, Vermi composting)	4757.92
	Sub total	7112.61
C	Agriculture - Ancillary activities	
i	Food and Agro processing	2543.40
ii	Agri Ancillary Others (Loans to Co-op Societies of farmers for disposing of their produce, Agri-Clinics / Agri-Business Centres (ACABC), Loans to PACs / FSS / LAMPS. Loans to MFIs for on-lending)	1071.20
	Sub Total	3614.60
D	Working Capital –AH&F- Through KCC	10245.38
I	Total Agriculture (A+B+C+D)	111225.72
II	Micro, Small and Medium Enterprises	
i	MSME – Term Loan	4660.00
ii	MSME – Working Capital	812.00
	Total MSME	5472.00
III	Credit Potential for Export	152.00
IV	Credit Potential for Education	1692.00
V	Credit Potential for Housing	3992.00
VI	Social Infrastructure involving bank credit	1134.64
VII	Credit Potential for Renewable energy	357.41
VIII	Credit Potential for others	1417.04
	Total Priority Sector (I to VIII)	125442.81

Map of the District: Mahisagar



District Profile			PLP 2023-24					
District - Mahisagar		State - Gujarat		Division - Central				
1. PHYSICAL & ADMINISTRATIVE FEATURES			2. SOIL & CLIMATE					
Total Geographical Sq.Km.		2530	Agro-	Semi Arid				
No. of Sub Divisions		3						
No. of Blocks		6	Climate	Gujarat plains & Hill Region				
No. of Villages		705	Soil Type	Loamy, Medium Black Soil, alluvial				
No. of Panchayats		353						
3. LAND UTILISATION [Ha]			4. RAINFALL & GROUND WATER					
Total Area Reported		253087	Rainfall [in mm]	Normal	Actual	2016-17	2017-18	2018-19
Forest Land		63748		749	761	721	606	445.1
Area Not Available for Cultivation		42271		Variation from Normal (%)		-4	-19	-41
Permanent Pasture and Grazing Land		6218	Availability of Ground	Net annual recharge		Net annual draft		Balance
Land under Miscellaneous Tree Crops		2658	Water [Ham]	86234.72		30424		55810.72
Culturable Wasteland		11567	5. DISTRIBUTION OF LAND HOLDING (as per Agl census 2011)					
Current Fallow		5581	Classification of Holding		Holding		Area	
Other Fallow		13814		Nos.	% to Total	Ha.	% to Total	
Net Sown Area		150792	<= 1 Ha	50688		53	21982	
Total or Gross Cropped Area		177427	>1 to <=2	23260		24	33378	
Area Cultivated More than Once		48679	>2 Ha	21522		23	78734	
Cropping Intensity [GCA/NSA] (%)		118	Total	95470		100	134094	
6. WORKERS PROFILE [in Lakh]			7. DEMOGRAPHIC PROFILE [in Lakh]					
Cultivators		2.12	Category	Total	Male	Female	Rural	Urban
Of the above, Small/Marginal Farmers		0.74	Population	9.95	5.11	4.84	6.16	3.79
Agricultural Labourers		1.49	Scheduled Caste	0.54	0.26	0.28	0.45	0.09
Workers engaged in Household Industries		0.07	Scheduled Tribe	3.50	1.79	1.71	3.45	0.05
Workers engaged in Allied Agro-activitiesm		0.00	Literate	7.31	4.46	2.85	4.37	2.94
Other workers		0.38						
8. HOUSEHOLDS [in Lakh]			9. HOUSEHOLD AMINITEIES					
Total Households		9.94	Having brick/stone/concrete houses	207		Having electricity supply		398
Rural Households		6.63	Having source of drinking water	447		Having independent toilets		119
BPL Households		0.35	Having access to banking services	200		Having radio/tv sets		51/91
10. VILLAGE-LEVEL INFRASTRUCTURE [Nos]			11. INFRASTRUCTURE RELATING TO HEALTH & SANITATION [Nos]					
Villages Electrified		705	Anganwadis	1297		Dispensaries		60
Villages having Agriculture Power Supply		705	Primary Health Centres	33		Hospitals		18
Villages having Post		591	Primary Health Sub-Centres	33		Hospital Beds		1294
12. INFRASTRUCTURE & SUPPORT SERVICES FOR AGRICULTURE			13. IRRIGATION COVERAGE [Ha]					
Fertiliser/Seed/Pesticide Outlets [Nos]		281/235/250	Agriculture Pumpsets [Nos]		31792			
Total N/P/K Consumption [MT]		118091	Pumpsets Energised [Nos]		NA			
Certified Seeds Supplied [MT]		1649	Agro Service Centres [Nos]		30			
Pesticides Consumed [MT]		73000	Soil Testing Centres [Nos]		1			
Agriculture Tractors [Nos]		1023	Plantation nurseries [Nos]		0			
Power Tillers [Nos]		NA	Farmers' Clubs [Nos]		0			
Threshers/Cutters [Nos]		NA	Krishi Vigyan Kendras [Nos]		0			
14. INFRASTRUCTURE FOR STORAGE, TRANSPORT & MARKETING			16. AREA, PRODUCTION & YIELD OF MAJOR CROPS					
Rural/Urban Mandi/Haats [Nos]		28	Wholesale Market [Nos]		6			
Length of Pucca Road [Km]		4980	Godown		22			
Length of Railway Line [Km]		155	Godown Capacity [MT]		5000			
Public Transport Vehicle [Nos]		167394	Cold Storage [Nos]		0			
Goods Transport Vehicle		NA	Cold Store Capacity [MT]		NA			
15. AGRO-PROCESSING UNITS			17. ANIMAL POPULATION AS PER CENSUS 2012 [in '000]					
Type of Processing	No of units	Cap. [MT]	2020-21		2021-22		Avg. Yield	
Food	1045		Area (Ha)	Prod. (MT)	Area (Ha)	Prod. (MT)		
Sugarcane	0		32210	48000	38770	81630	1826	
Fruit (Pulp/Juice/Fruit)	0		22540	59060	59060	70120	1583	
Spices (Masala)	0		39920	59410	38910	86880	1856	
Dry-fruit	0		3900	7040	3710	7460	1905	
Cotton	440		5630	8950	4518	11460	2011	
Milk (Chilling/Cooling/Processing)	1	11.00 la ltrs	15710	19340	17790	22560	1251	
Meat	0	0	Other Crops		14170		7690	
Animal feed	0	0			3080		16564	
18. INFRASTRUCTURE FOR DEVELOPMENT OF ALLIED ACTIVITIES			19. MILK, FISH, EGG PRODUCTION & THEIR PER CAPITA AVAILABILITY					
Veterinary Poly clini/Vet. Centers [Nos]		1& 06	Animal Markets [Nos]		0			
Mobile Vet. Hosp. [Nos]		11	Milk collection Centres		1095			
Artificial Insemination Centers [Nos]		688	Fishermen Societies [Nos]		32			
Animal Breeding Farms [Nos]		0	Fish seed farms [Nos]		1			
Animal Husbandry Tng Centres [Nos]		0	Fish Markets [Nos]		0			
Dairy Cooperative Societies [Nos]		1399	Poultry hatcheries [Nos]		0			
Improved Fodder Farms [Nos]		0	Slaughter houses [Nos]		0			
Fish	Production	695	Per cap		1.12			
Egg	Production [Lakh Nos]	270	Per cap avail. [nos/p.a.]		39			
Milk	Production	827	Per cap		0.83			
Meat	Production	446	Per cap		0.046			
Sources (if not mentioned against the respective item):								
Item Nos 1, 6, 7, 9 & 10 - Census 2001 ; Item Nos. 2, 3, 5, 8, 12, 13 & 14, 16- Dept of Agr/ Dir of Eco & Stat. ; Item No. 15 - District Ind centre / Dir of Eco & Stat ; Item No. 17, 18, 19- AH Office, Mahisagar, Panch. Dairy Union								
Prior to division, Panchmahal distt. was having 11 blocks, after bifurcation Mahisagar District has 6 blocks								

District profile

20. The 28th newly formed district named Mahisagar in Gujarat observes its name from the holy Mahi river which flows from East to West and is worshipped by many people due to lots of temples and holy places of worship along its shore. This district has been carved out of two districts, Panchmahal and Kheda. It came into existence as a district on 26th January 2013, but came in operational mode on 15th August 2013. Lunawada, the capital of the former princely State of Lunawada is the district capital. Mahisagar is located in the North Eastern part of Gujarat. It is spread across 6 talukas. National Highway (NH) 59 passes through the district connecting it to Ahmedabad (120 Kms) and Indore. The total rail length in the district is 155 Km and nearest airport (Vadodara) is 128 Kms away.

Highest temperature is 41 °C in summer and lowest temperature comes down to 14°C in winter season. Average Rainfall in the district is 939 mm. during the monsoon season.

Available skilled labour is nearly 38.20 % to the total human resources; of which 16.13% are engaged in agriculture and 22.07 % in the industrial sector. Lunawada has Tirupati oil industries, Balaji food industries, Groundnut oil industries that are major sources of employment for people of the region. The focused sectors are tourism, agriculture, horticulture and dairy farming. Major tourist attractions in the district include Kaleshwari which is the famous place in Lunawada holding historical importance.

21. Economy and Industry:

The district is famous for its agricultural and horticultural produce. Major occupations in the district are dairy farming and agriculture. Major crops cultivated are paddy, wheat, maize and pulses. Besides agriculture, large cultivation of horticultural crops of mango, banana, papaya, citrus, guava, brinjal, cabbage, onion, garlic, etc. is done.

Tourist destinations and fairs in the district attract a large number of tourists every year.

22. Economy Drivers:

The economy of the district is driven by dairy farming and agriculture. Few food and groundnut oil industries are located near Lunawada. The famous Panchmahal Dairy is located in adjoining district, due to which many people have adopted dairy farming as an additional source of income besides agriculture and horticulture. Increasing food grain and horticulture produce and growing dairy farming are fueling the economic growth of the district.

23. Cooperative Sector

The block wise, sector wise distribution of cooperative societies in the district is as under:

Sr. No.	Block	PACS	Milk Societies	Fisheries Societies	Irrigation Societies	Labour Societies
1	Lunawada	49	281	1	21	8
2	Khanpur	11	102	0	16	7
3	Kadana	05	139	4	31	20
4	Santrampur	09	135	1	22	15
5	Balasinor	30	72	0	4	5
6	Virpur	19	91	0	2	4
		123	820	6	96	59

The district has a rich cooperative profile with 1446 Cooperative Societies registered under 22 different categories having total membership of 160075. The total number of societies registered under PACS, Milk, Fisheries, Irrigation and Labour are 1104 with 121566 membership.

24. NABARD's interventions in the district:

NABARD is having two Wadi Project for 1000 Tribal people in Kadana block which is implemented through NGOs. Under Wadi programme, besides planting mango, lemon and pomegranate trees, the tribal people are taking up vegetable cultivation with mandap structures as intercropping. This has increased their income as they don't have to depend only on their traditional crop production like paddy and maize. It has made a visible impact and stands out as a demonstrative and sustainable model.

Banking Profile - Highlights

Banks & Branches: The Bank of Baroda is the lead bank of Mahisagar district. Apart from 67 branches of 12 commercial banks 4 private sector banks and 1 SFB, 18 branches of RRB, 14 branches of District Cooperative Bank and 3 branches of GSCARDB, the district is served by 82 PACS affiliated to the Panchmahal District Cooperative Bank.

Overall Analysis: Total deposits of the banks in the district amounted to ₹437436 Lakh as on 31 March 2022 with loans outstanding at ₹177746.51 lakh of which ₹88495 Lakh were agriculture advances (50%). CD Ratio of the district was 40.63 % as on 31 March 2022 as against the benchmark of 60% prescribed by RBI.

KCCs: A total number of 51279 KCCs have been issued with outstanding amount of ₹62863 lakhs till 31 March 2022.

FLCC and FLC: Lead Bank, Bank of Baroda's FLCC Centre was set up on 15th March 2014 and is functioning very well at Lunawada. During the year, 150 Awareness Programmes were conducted by the banks in different villages.

RSETI: Baroda Swarojgar Vikas Sansthan (BSVS) is having its Training Centre in Lunawada. As on 31st March 2022, total 19 training programmes were conducted in which 595 trainees were trained on different skills like AC/Fridge repairing, Jewellery making, paper bag, stitching, agarbatti making, and utility items from waste etc.

Atal Pension Yojana: Cumulative enrolment under APY was 12735 as on 31st March 2022.

Progress under PMJDY: There were 347250 accounts had opened as on 31 March 2022, out of which 309701 accounts were Aadhaar seeded. RuPay Cards were issued to 328012 account holders.

Progress under PMSBY, PMJJBY: Pradhan Mantri Suraksha Bima Yojana and Pradhan Mantri Jivan Jyoti Bima Yojana were launched by the Central Government on 09th May 2015 and as on 31st March 2022, a total 54853 beneficiaries under PMJJBY, 110153 beneficiaries under PMSBY have been covered in the district.

Progress under PM Mudra Yojana: Under Pradhan Mantri Mudra Yojana, an amount of ₹1088.41 lakh was disbursed for total number of 224 accounts during 2021-22. The outstanding as on 31 March 2022 is ₹5750.89 lakh against 4954 accounts.

Financial Literacy Awareness Programmes: Banks are organising Financial Literacy awareness programmes for propagating various Insurance and other schemes i.e. Pradhan Mantri Jan Dhan Yojana, Pradhan Mantri Jeevan Jyoti Bima Yojana, Pradhan Mantri Suraksha Bima Yojana, Atal Pension Yojana, etc. This has helped in creating awareness amongst the masses and many of the villagers are enrolling themselves with banks to take benefit of the above schemes.

Banking Profile

District -	Mahisagar	State -	Gujarat	Lead Bank -	Bank of Baroda
------------	-----------	---------	---------	-------------	----------------

1. NETWORK & OUTREACH (As on 31/03/2022)

Agency	No. of Banks/Soc.	No. of Branches				No. of non-formal agencies associated				Per Branch Outreach	
		Total	Rural	Semi-urban	Urban	mFIs/mFO	SHGs/JLGs	BCs/BFs	Villages	Households	
Commercial Banks	12	67	42	25	0	NA	3190/1764	211	7	4630	
Regional Rural Bank	1	18	15	3	0	NA	1690/08	63	25	2892	
District Central Coop.	2	14	11	3	0	NA	422/01	204	32	16495	
Coop. Agr. & Rural Dev.	1	3	0	3	0	NA			151	51844	
Primary Agr. Coop. Soc.		82	82	0	0	NA			6	1657	
Others	1	0	0	0	0	NA					
All Agencies	17	102	68	34	0	0	6735 / 1773	478		77518	

2. DEPOSITS OUTSTANDING

Agency	No. of Accounts					Amount of Deposit [Rs. lakh]				
	31-Mar-18	31-Mar-19	31-Mar-20	Growth(%)	Share(%)	31-Mar-20	31-Mar-21	31-Mar-22	Growth(%)	Share(%)
Commercial Banks	N.A.	N.A.	N.A.	N.A.		283457	343038	363605.07	6.00	83.12
Regional Rural Bank	N.A.	N.A.	N.A.	N.A.		39037	42636	42115.22	-1.22	9.63
Cooperative Banks	N.A.	N.A.	N.A.	N.A.		18870	22331	25109.92	12.44	5.74
Others	N.A.	N.A.	N.A.	N.A.		25252	3942	6605.59	0.00	1.51
All Agencies	N.A.	N.A.	N.A.	N.A.		366616	411947	437435.8	6.19	100.00

3. LOANS & ADVANCES OUTSTANDING

Agency	No. of accounts					Amount of Loan [Rs. lakh]				
	31-Mar-18	31-Mar-19	31-Mar-20	Growth(%)	Share(%)	31-Mar-20	31-Mar-21	31-Mar-22	Growth(%)	Share(%)
Commercial Banks	N.A.	N.A.	N.A.	N.A.		87384	108539	136835.77	26.07	76.98
Regional Rural Bank	N.A.	N.A.	N.A.	N.A.		17195	18710	20051.35	7.17	11.28
Cooperative Banks	N.A.	N.A.	N.A.	N.A.		5203	4733	6330.24	33.75	3.56
Others	N.A.	N.A.	N.A.	N.A.		15892	6019	14529.15	0.00	8.17
All Agencies	N.A.	N.A.	N.A.	N.A.		125674	138001	177746.51	28.80	100

4. CD-RATIO

Agency	CD Ratio		
	31-Mar-19	31-Mar-20	31-Mar-21
Commercial Banks	30.83	31.64	37.63
Regional Rural Bank	44.05	43.88	47.61
Cooperative Banks	27.57	21.19	25.21
Others	62.93	152.69	219.95
All Agencies	34.28	33.50	40.63

5. PERFORMANCE UNDER FINANCIAL INCLUSION (No. of A/cs)

Agency	During 2019-20		Cumulative	
	Deposit	Credit	Deposit	Credit
Commercial Banks	7299	NA	274862	NA
Regional Rural Bank	9682	NA	65612	NA
Cooperative Banks	NA	NA	0	NA
Others	6776	NA	6776	NA
All Agencies	23757	NA	347250	NA

6. PERFORMANCE TO FULFILL NATIONAL GOALS (As on 31/03/2021)

Agency	Priority Sector Loans		Loans to Agr. Sector		Loans to Weaker		Loans under DRI Scheme		Loans to Women	
	Amount [Rs. Lakh]	% of Total Loans	Amount [Rs. Lakh]	% of Total Loans	Amount [Rs. Lakh]	% of Total Loans	Amount [Rs. Lakh]	% of Total Loans	Amount [Rs. Lakh]	% of Total Loans
Commercial Banks	97157	71	70262	51	NA	NA	NA	NA	NA	0
Regional Rural Bank	18325	91	15436	77	NA	NA	NA	NA	NA	0
Cooperative Banks	4735	75	2797	44	NA	NA	NA	NA	NA	0
Others	0	0	0	0	NA	NA	NA	NA	NA	0
All Agencies	120217	68	88495	50	0	0	0	0	0	0

7. AGENCY-WISE PERFORMANCE UNDER ANNUAL CREDIT PLANS

Agency	2019-20			2020-21			2021-22			Average Ach[%] in last 3 years
	Target [Rs. lakh]	Ach'ment [Rs. Lakh]	Ach'ment [%]	Target [Rs. lakh]	Ach'ment [Rs. Lakh]	Ach'ment [%]	Target [Rs. lakh]	Ach'ment [Rs. Lakh]	Ach'ment [%]	
Commercial Banks	38630	29476.57	76	47245	42755.00	90	50814	55069.51	108	93.13
Regional Rural Bank	12735	12725.82	100	13330	13129.09	98	14326	13666.37	95	97.85
Cooperative Banks	4900	4073	83	5730	4635.00	81	6205	6779.42	109	92.00
Others	3180	4891.61	0	0	0.00	0	0	0.00	0	0.00
All Agencies	59445	51167.00	86	66305	60519.09	91	71345	75515.30	106	94.98

8. SECTOR-WISE PERFORMANCE UNDER ANNUAL CREDIT PLANS

Broad Sector	2019-20			2020-21			2021-22			Average Ach[%] in last 3 years
	Target [Rs. Lakh]	Ach'ment [Rs. lakh]	Ach'ment [%]	Target [Rs. Lakh]	Ach'ment [Rs. lakh]	Ach'ment [%]	Target [Rs. Lakh]	Ach'ment [Rs. lakh]	Ach'ment [%]	
Crop Loan	37510	35257	93.99	38730	31518.93	81	41624	49885.82	120	98.98
Term Loan (Agr)	13560	6493	47.88	15555	8671.88	56	16666	12550.76	75	60.54
Total Agri. Credit	51070	41750	81.75	54285	40191	74	58290	62436.58	107	88.23
Non-Farm Sector	2355	7155	303.82	4550	19555.5	430	10480	10141.26	97	211.97
Other Priority Sector	6020	2762	45.88	7470	772.78	10	2575	2937.46	114	40.29
Total Priority Sector	59445	51667	86.92	66305	60519	91.27	71345	75515.30	106	95.23

9. RECOVERY POSITION

Agency	2019-20			2020-21			2021-22			Average Rec. [%] in last 3 years
	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	#####	#####	94.43	176397	167550	94.98	NA
Regional Rural Bank	NA	NA	NA	18710.00	18171.00	97.12	20051	19589	97.69	NA
Cooperative Banks	8670		#VALUE!	5443.00	4948.00	90.91	6330	5683	89.78	#VALUE!
Others (Not Available)	-	-	-	0	-	-	0	0	-	-
All Agencies	8670	0	#VALUE!	#####	#####	94.66	202778.60	192822.00	95.09	#VALUE!

Sources : Lead Bank & SLBC

Methodology of 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 prioritise 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 years. 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.

Sr. No.	Sector	Methodology of estimation of credit potential
1	Crop loans	<ul style="list-style-type: none">• Collection of data on Gross Cropped Area for a period of 10 years and data on land holdings• Distribution of Gross Cropped Area between Small Farmers/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.• Make assumption to cover 100% of Small/Marginal Farmers and 20% to 50% of Other Farmers;• Study the cropping pattern

Sr. No.	Sector	Methodology of estimation of credit potential
		<ul style="list-style-type: none"> • Estimation of credit potential taking into account Scale of Finance and also the KCC guidelines in vogue • Block-wise allocation of potential taking into account credit absorption capacity in a particular block, cropping pattern, etc.
2	Water Resources	<ul style="list-style-type: none"> • MI potential is the area that can be brought under irrigation by ground and surface water; • Collection of data on ultimate irrigation potential, area already brought under irrigation and balance potential available under groundwater and surface water for the district • 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; • 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. • Preference of farmers for different MI structures like dug wells, bore wells, DCBW, etc. is to be taken into account. • 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.
3	Farm Mechanisation	<ul style="list-style-type: none"> • 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 drought animal power/power tiller by using conversion factors; • Calculation of requirement of number of tractors assuming one tractor per 30 acres and 45 acres of irrigated and unirrigated cropped area; • Adjustment of tractor potential with land holdings • Based on the cropping pattern, topography etc similar assessment is made for power tillers, combined harvesters, etc.
4	Plantation and Horticulture	<ul style="list-style-type: none"> • 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; • Feasibility and possibility of shifting from food crops to plantation crops; • Estimation of replanting by taking into account approximate economic life of a few plantation crops • Estimation of potential for rejuvenation of existing plantation
5	Animal Husbandry – Dairy	<ul style="list-style-type: none"> • Collection of data on number of milch animals as per the latest census • 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; • 1/6th 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 2nd and 3rd lactation. 50% of the number of animals

Sr. No.	Sector	Methodology of estimation of credit potential
		so arrived are assumed to be animals available for bank finance.

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	i. Provides inputs/information on eExploitable potential vis-a-vis credit available ii. Potential High Value Projects/Area Based schemes iii. Infrastructure support available which can form basis for their business/development plans.
2	Government Agencies/ Departments	i. Developmental infrastructure required to support credit flow for tapping the exploitable potential ii. Other support required to increase credit flow iii. Identification of sectors for Government sponsored programme
3	Individual/ Business entities	i. Private investment opportunities available in each sector ii. Commercial infrastructure iii. Information on various schemes of Govt. & Banks.

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 ₹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 ₹50,000 crore to total cover of ₹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 ₹2 lakh crore for Micro and Small Enterprises and expand employment opportunities.
- Raising and Accelerating MSME Performance (RAMP) programme with an outlay of ₹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.

Sr. No	Type	Number of Societies
A	Non Credit Cooperative Societies	
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
	Total	739582
B	Credit Cooperative Societies	
10	Primary Agriculture Credit Societies	93978
C	Multi State Cooperative Societies (MSCs)	
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 ₹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 ₹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 ₹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 ₹24,399.43 crore to Cooperative Banks, RRBs, SCARDBs, and NBFC-MFIs as special liquidity facility (SLF-2) during the pandemic. Out of which, ₹15053.30 crore was disbursed to Cooperative Banks, ₹7746.13 crore to RRBs for the purpose of ASAO and ST-Others and ₹1600 crore to SCARDBs & NBFCs/NBFC-MFIs. Under Additional Special Liquidity Facility (ASLF) an amount of ₹150.00 crore was disbursed during the year 2021-22 to NBFCs/NBFC-MFIs with asset size of less than ₹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 ₹40,000 crores during FY 2021-22.
- During 2021-22, the total sanctions were to the tune of ₹46,072.70 crore and disbursements were to the extent of ₹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 ₹800.78 crore and ₹3196.97 crore was released during 2021-22. As on 31 March 2022, the cumulative loan sanctioned and disbursed under LTIF stood at ₹85, 127.38 crore and ₹55, 676.68 crore, respectively.

ii) Micro irrigation Fund (MIF)

Under MIF, an amount of ₹256.25 crore was released during 2021-22. As on 31 March 2022, the cumulative loan sanctioned and released stood at ₹3970.17 crore and ₹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 ₹61,975.00 crore and ₹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 ₹10 lakh to ₹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 ₹10 lakh to ₹20 lakh and categorised as under.

- i. Loans up to ₹10 lakh -No collateral and no margin to be charged
- ii. Loans above ₹10 lakh and up to ₹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 ₹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 ₹50,000/- and above, the new scheme with maximum support of ₹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 ₹520.71 lakh has been sanctioned and ₹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 ₹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 ₹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 ₹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 ₹17.10 lakh crore, as against the target of ₹16.50 lakh crore.

Agriculture credit target for the year 2022-23 has been fixed at ₹18.50 lakh crore. In order to provide special focus to allied activities, separate sub targets of ₹37,800 crore for working capital and ₹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 ₹22,03,062 crore expecting a growth of 13.3% over the revised estimate of GSDP for 2021-22 (₹19,44,107 crore).

1.4.1 Budget Initiatives

State Government has presented a budget of ₹2,18,408 crore for the year 2022-23. The overall surplus as per budget estimates for the year 2022-23 is ₹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 ₹7737 crore has been earmarked for various activities of Agriculture, farmers' welfare and Cooperation Department. Some components of the allocation are as under-
- 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
 - 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.
 - Provision of ₹231 crore for various projects related to agriculture and allied sectors under Rashtriya Krishi Vikas Yojana.
 - A provision of ₹213 crore for maintenance of cows for the farmers who are engaged in organic farming with dependence entirely on cows rearing.
 - A provision of ₹142 crore for constructing small godowns at farms under Mukhymantri Pak Sangrah Yojana.
 - 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.

- A provision of ₹100 crore to provide subvention to Agro and Food Processing Units under Sarvagrahi Krishi Vyavasay Niti.
- A provision of ₹81 crore under Khedut Khatedar Akasmat Bima Yojana for crop insurance in the State covering crop failure due to emergent reasons.
- 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.
- 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.
- A provision of ₹32 crore to encourage farmers engaged in organic farming in the Dangs district, for entirely chemical free cultivation.
- A provision of ₹20 crore for erecting solar power fencing around farms to prevent the crop being damaged by wild animals.
- A provision of ₹17 crore for storage of fertilizers in order to ensure timely supply of fertilizer to the farmers in adequate quantity.
- A provision of ₹15 crore to provide subvention on the purchase of goods carrying vehicles for transportation of agricultural products.
- 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, Madhavad, 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 ₹9048 crores for Panchayat, Rural Housing & Rural Development
- ii. As per 15th Finance Commission recommendations, Panchayats would get ₹15650 crore for development of Infrastructure facilities. Of this, provision of ₹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 ₹35 crore for strengthening e- Gram Centers to provide approximately 200 services.

I. Rural Development

- i. Provision of ₹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 ₹900 crore under Mahatma Gandhi Rashtriya Gramin Rojgar Yojana
- iii. Provision of ₹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 ₹467 crore for improving cleanliness standards at the rural level under Swachhh Bharat Mission (Gramin).
- v. Provision of ₹231 crore for economic development and women empowerment under National Rural Livelihood Mission (Aajivika).
- vi. Provision of ₹91 crore to promote basic services for economic upliftment at rural level under Shyama Prasad Mukherjee Urban Mission.
- vii. Provision of ₹38 crore for providing bathroom facility in newly approved houses under Pradhanmantri Awas Yojana (Gramin).
- viii. Provision of ₹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
A	Details of Non Credit Cooperative Societies*	
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
	Total	71469
B	Details of Credit Cooperative Societies#	
10	Primary Agriculture Credit Societies	7700
C	Details of Multi State Cooperative Societies (MSCs)\$	
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 ₹32.6 crore. A provision of ₹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 ₹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 ₹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 ₹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 ₹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 ₹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

2.1 Farm Credit

The district falls under North Gujarat agro-climatic zone with average annual rainfall during the last twenty years being 749 mm. The climate is semi-arid. The soil of the district is mainly of sandy loam and alluvial soil. Agriculture is the main activity of the 70 per cent people in rural areas. The major crops of the district are maize and paddy in kharif season and wheat and gram in the rabi season. Besides this, different types of pulses, vegetables, oilseeds, cotton and fodder crops are also grown on a fairly large scale. (Source : DSO, Mahisagar)

2.1.1 Crop Production, Maintenance and Marketing

2.1.1.1 Introduction

The State agriculture economy has witnessed a shift towards high value crops like cotton, groundnuts, fruits and vegetables and condiments and spices from low value cereals and other crops. Farm Credit includes Crop Loans, Medium Term Loans for agriculture and allied activities, Loans for pre and post-harvest expenses, etc. expended to Individual farmers & Corporates directly engaged in Agriculture and Allied Activities. Mahisagar is a developing District and located in the central part of Gujarat. The main crops grown are Paddy, Wheat, Maize and Pulses. Agriculture is mainly depending up South-West monsoon. Gujarat is a diversified agricultural economy.

2.1.1.2 Infrastructure and linkage support available, planned and gaps

Land Holding Pattern: The 78.79% of the land holdings comprising 44.48% of total area are held by small and marginal farmers. (Source DAO, Mahisagar)

Category	Number ('000)	Area ('000Ha)
Marginal Farmer (agri land holding up to 1 hectare)	53.60	24.44
Small Farmer (agri land holding 1 hectare to 2 hectares)	24.83	35.54
Semi Medium (agri land holding 2-4 ha) & above	21.11	74.87
Total holding	99.541	134.85

Area and Production: Though the climatic conditions of the district is suitable for cultivation of Paddy, Wheat and Maize 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 ha)		Production ('000 tonnes)	
	2020-21	2021-22	2020-21	2021-22
Paddy	32.21	38.77	48.00	81.63
Wheat	22.54	24.67	59.06	70.12
Maize	39.92	38.91	59.41	86.88
Bajra	5.63	4.518	8.95	11.46
Pulses	15.71	17.79	19.34	22.56
Groundnut	3.90	3.71	7.04	7.46
Other Oilseeds	2.63	5.35	3.10	8.69
Cotton	5.19	7.28	2.80	5.97
Other crops	14.17	3.08	7.69	16.56
Total	141.90	144.078	215.39	311.33

Source: (Area, production , Director of Agriculture-4th Advance estimate 2021-22)

It may be observed that Paddy, Wheat, Maize, Bajra & Pulses are the major crops grown in the district. The area under Paddy, Wheat and Maize has almost remained same, there is considerable increase in production during 2021-22. The area and production, under Pulses, and Cotton has increased during 2021-22 compared to 2020-21. However, the area under Groundnut has decreased marginally as compared to 2020-21, however its production

increased during 2021-22. The growth under fodder crops during 2020-21 in terms of area and production is due to increase in dairy activities during pandemic period.

2.1.1.3 Assessment of credit potential for the financial year 2023-24 (In both Physical and Financial terms)

Credit potential for 2023-24 has been estimated at ₹67171.67 lakh. The ground level disbursements for 2020-21 and 2021-22 were ₹31518.93 lakh and ₹49886 lakh under agriculture sector.

Sr. No.	Crops	Unit size	SOE	Assessment of Potential 2023-24	
		Area	(₹Lakh)	Phy.Units (in ha)	Fin. (₹Lakh)
1.	Paddy	ha	0.68	22500	15232.50
2.	Wheat	ha	0.48	16500	7969.50
3.	Jowar	ha	0.12	450	55.80
4.	Bajra	ha	0.22	4900	1097.60
5.	Maize	ha	0.53	33500	17788.50
6.	Cotton Desi	ha	0.30	4245	1277.75
7.	Pulses	ha	0.28	12630	3485.88
8.	Tobacco	ha	0.57	800	458.40
9.	Oil Seeds/Soyabean	ha	0.39	1700	663.00
10.	Groundnut	ha	0.39	1810	705.90
11.	Other food grains	ha	0.29	1561	452.69
12.	Fodder crop	ha	0.19	13000	2483.00
Crop Loan Sub-Total					51670.52
Post-Harvest /Household/ Consumption @10% of crop loan total					5167.05
Repair/Maintenance. of farm assets @20% of crop loan total					10334.10
Crop Loan Grand Total					67171.67

Note: The Scale of finance is as per the DLTC and SoF is rounded off

2.1.1.4 Critical interventions required for creating a definitive impact :

- 1. PMFBY:** GOI vide notification dated 22.4.2020 has revamped PMFBY scheme and has made it Voluntary for all the farmers, including loanee farmers. The GOI has formulated the detailed guidelines regarding the operational procedure to be followed by banks for implementation of PMFBY, especially for opting out and opting in of the farmers for the crop insurance scheme. During the year 2019-20 claims of 2223 for Kharif has been settled. While 1789 applications have been registered on PMFBY portal for Rabi 2019-20. (source: Agriculture Deptt. Mahisagar).

The Government of Gujarat has also implemented "Mukhya Mantri Kisan Sahay Yojana" for Kharif crop covering 3 risks- Drought, Heavy rain and Unseasonal rainfall. The farmers do not require to pay any monetary share to avail the benefit of the scheme. For Crop loss of 33 % to 60 %, assistance of ₹20000/- per Ha. and for Crop loss above 60 %, assistance of ₹25000/- per Ha. will be eligible for maximum 4 hectares in Kharif season.

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 will be calculated **as applicable** on the crop loan/WC loan amount from the date of its disbursement/ drawal up to the date of actual repayment of the crop loan by the

farmer or up to the due date of the loan fixed by the Banks, whichever is earlier, subject to a maximum period of one year. 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.

2. 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 **2021-22**. This benefit would not accrue to those farmers who repay after one year of availing such loans.
3. **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. 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. The Soil Health Card is valid for three years. Cumulatively about 250825 Soil Health Card have been entered on the portal for the district. (source: Agriculture Deptt. Mahisagar)
4. **Seeds:** Gradually the farmers are switching to the certified seeds available from Govt. and private companies. The seed replacement ratio was 61 % approx. for major crops in 2020-21. As such there is good scope to improve the SRR in district. The total use of all chemical fertilizers in the district was 33638.61 MT in 2020-21. (Source: Dir.Exttn. Agri) The Seed Corporation has constructed its own scientific storage godowns having capacity of 1.37 lakh quintals of seeds at various district/taluka places. Corporation has 35 approved / 200 other seed dealers in the Panchmahal Region. The Seed Corporation is providing high yielding variety of seeds every year to farmers from tribal region.
5. **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 6 APMCs in the district. There are facilities of grading and sorting through private players in the district. Good number of MSME units are situated in the district to absorb the goods produced by the farmers by way of value addition.
6. **RuPay Cards to farmers:** There are 212061 cultivators in the district out of which 46573 farmers are covered under Rupay KCC. Bankers are making efforts for providing the cards to all the eligible cultivators. The activation rate of Rupay KCC is about 18 %. (source: DLCC, Mahisagar)
7. **Implementation of PM-KISAN and KCC saturation status :** A total number of 46573 KCCs have been issued with outstanding amount of ₹55246 lakhs till 31 March 2021. Benefits under PM-Kisan Sanman Yojana were provided to eligible farmers with Aadhar linked KCCs. (Source : LDM, Mahisagar)

2.1.1.5 Suggested action Points

i. Banks:

- To bring all Small and Marginal farmers into formal credit network by issue of KCCs. Create awareness amongst farmers about proper use of KCC. Presently, most of the farmers are drawing total limit sanctioned in one go, instead of need based drawal.

- Provide credit to farmers under negotiable Warehouse receipt Scheme
- Banks may explore extending credit for developing processing and marketing activities, wherever adequate infrastructure facilities have been created by way of assistance from NABARD for setting up of godowns, cold storages, market yards, etc.
- Formulate Area Development Schemes dovetailed with Govt. Sponsored programme and collaborate with entrepreneurs for financing.

ii. State Government.:

- Setting up of soil testing centers at each block headquarter and issuing of Soil Health Cards to all farmers is necessary.
- Provide better extension facilities for adoption of modern technologies / scientific cultivation practices for adoption by the farmers. Provision of infrastructure facilities like warehousing, marketing infrastructure etc.
- Supply of quality seeds and farmers may be encouraged to use HYV seeds which require less water. Organic farming needs to be promoted on a large scale.
- Awareness about Electronic National Agriculture Market (e-NAM)
- Area expansion through diversification of low yielding cereals crops into oilseeds crops in districts like Mahisagar will show good results.
- Encourage promotion and popularization of Farmer producer Organisations in the interest of farmers.
- Expansion of APMCs with modern facilities is necessary taking into account increased food production

2.1.1.6 Other Related Issues :

- Farmers Producers Organisation have been formed with the basic intention of benefit in group mode to farmers both for forward and backward linkages. State Govt. and bankers need to give full support to these FPOs so that they are strengthened and become self-sufficient in taking up of various farming related activities.
- Doubling of farm income is possible to be achieved by identifying gaps in productivity, measures required to reduce the gap, scope of supplementary income, removal of constraints in market realization, etc. Accordingly, if more attention is given for increasing productivity, adoption of scientific agricultural practices and improving market realization, the income of farmers can be increased to desired extent instead of following traditional way of agriculture. If more attention is provided for proper crop selection and implementing scientific package of practices in farming, it will help in doubling of farmers income.

2.1.2 Water Resources

2.1.2.1 Introduction

Geographically the district is situated in Eastern Gujarat region. The geological formation in the district is alluvial, loamy, sandy black soil. Nearly 38% of cultivated area is irrigated and about 62% of the agriculture is dependent upon. According to assessment of dynamic ground water resources, all six talukas are falling under safe category. The ground water in this area is tapped through dug wells, dug-cum-bore wells and bore wells. The quality of ground water is suitable for irrigation throughout the district. There are eight perennial rivers in the undivided district viz. Panam, Goma, Orsang, Mahisagar, Neshri, Kunkaran, Veri and Sukhi. The district is having 2 major dams viz. Kadana and Panam constructed on the Mahisagar and Panam rivers respectively. The district gets rainfall in the range of 680 mm to 800 mm.

Status of ground water development is indicated in the table below. As per the GEC, 2017, the stage of ground water development is 38.19% and all the blocks are in safe category as per ground water stage of development. The net ground water availability of 17422 ham.

(source: http://cgwb.gov.in/documents/2021-08-02-GWRA_India_2020.pdf)

(units in mcm)

Sr. No.	Taluka	Total Annual GW recharge	Natural Discharge during Non Monsoon season	Net annual GW availability	Irrigation	Dom & Ind. Uses	Total	Projected Demand for Domes & Indul uses up to 2025	GW availability for future irrigation	State of Development %	Category
1	Lunawada	8863.31	443.17	8420.15	4783.60	665.00	5448.60	870.00	2766.55	64.71	Safe
2	Khanpur	4443.19	222.16	4221.03	2208.00	246.00	2454.00	323.00	1690.03	58.14	Safe
3	Santrampur	4943.01	247.15	4695.86	2515.85	634.00	3149.85	830.00	1350.01	67.08	Safe
4	Kadna	5560.28	278.01	5282.27	1467.30	240.00	1707.30	314.00	3500.97	32.32	Safe
5	Balasinor	2408.32	120.42	2287.90	1750.00	236.00	1986.00	330.00	207.90	86.80	Safe
6	Virpur	2355.41	117.77	2237.64	1211.20	252.00	1463.20	353.00	673.44	65.39	Safe

2.1.2.2 Infrastructure and linkage support available, planned and gaps

- Major farm–equipment companies are having their networks/dealership in the district.
- At district level canal irrigation contributes about 38 per cent area and remaining 62 per cent area is irrigated by seasonal rains and available ground water.
- The net ground water is sufficient for existing irrigation wells.
- There is sufficient power availability for operation of pumps. Promotion of Solar pumping is being tried by the district administration.
- The GOG has created a number of check dams (8000-9000) for the purpose of water conservation / irrigation. The process of repairs of damaged check dams due to incessant rains/floods may have to be expedited by Irrigation Department, so that the water storage and recharge of water could be improved.
- The District Irrigation Plan (DIP) has been prepared. This will facilitate more structured and planned approach for developing of irrigation potential of the district. The works of Lift Irrigations schemes, Exploratory Tubewells by GWRDC and ERM, weir works by State Irrigation Deptt. and few works under Watershed component have been planned under DIP.

2.1.2.3 Assessment of credit potential for the financial year 2023-24

The credit potential keeping in view the ground conditions and requirements assessed, is estimated at ₹4996.15 lakh for 2023-24 as detailed below.

Sr. No.	Activity	Unit (Ha/Nos.)	Unit Cost (₹Lakh)	Phy. Units	TFO (₹Lakh)	Bank Loan (₹Lakh)
1.	Dug well	Nos.	1.69	930	1571.70	1257.36
2.	Shallow Tube well	Nos.	1.09	489	533.01	426.41
3.	Pump sets 15 HP	Nos.	0.61	340	206.72	165.38
4.	Pump House	Nos.	0.35	300	105.00	84.00
5.	Lift Irrigation	Ha.	1.45	990	1435.50	1148.40
6.	Drip Irrigation mm (6X6)	Ha.	0.44	490	215.60	172.48
7.	Sprinkler (8 x 8)	Ha.	0.86	480	412.03	329.63
8.	Pipe based MI	Ha.	0.59	383	227.04	181.63
9.	Renovation of wells	Nos.	0.66	423	279.18	223.34
10.	Solar Pumpsets 2 HP	Nos.	5.40	177	955.80	764.64
11.	Bore well + Pumpset 2HP	Nos.	3.30	92	303.60	242.88
	Total		-		6245.18	4996.15

2.1.2.4 Critical interventions required for creating a definitive impact:

- Ground water recharge structures may be created with community participation for maintaining soil moisture
- Rain water harvesting for individual household and at village level to be adopted and practised for undertaking backyard farming, fodder cultivation during summer season.
- Water recycling units may be established in the industrial areas for controlling water pollution and reuse of water for agriculture / industrial purpose

2.1.2.5 Suggested Action Points

a. State Government

- Harvesting and conservation of rain water in the fields through ridge formation on keyline contours is a must. This will ensure greater withstanding of crops during droughts. Undertaking massive programme of harnessing run off in small rivulets /nallah through construction of check dams will help in recharging ground water that can be used in lean periods.
- For availability of safe drinking water free from fluoride contents, recharging of ground water needs to be done with appropriate ground water recharge techniques.
- For recharge of quality ground water, recharge wells may be constructed by the farmers availing subsidy under various land based schemes.
- Efforts are required to be made through extension services to push forth micro irrigation methods.
- For creating awareness about judicious use of water and water conservation line departments may propagate Water Conservation message in different forums, specifically at village level.
- Use of pipeline needs to be popularized to optimize the use of available water as the existing system of pukka channels and flood irrigation involves wastage of precious water.
- State Govt. may prioritize work of Command Area Development for efficient usage of available water resources.

b. Banks

- Banks may finance more number of water saving devices like drip and sprinkler irrigation systems in all blocks. Introduction of Drip and Sprinkler irrigation in feasible horticulture and vegetable growing areas may be encouraged.
- Proposals under micro irrigation credit linked subsidy scheme under Gujarat Green Revolution Company may be expeditiously sanctioned by the banks.
- Solar irrigation pumps are also eligible for subsidy under MNRE subsidy scheme hence banks may finance them liberally.

2.1.3 Farm Mechanisation

2.1.3.1 Introduction

Farm mechanization means the use of machines and technology in the agriculture sector to increase productivity of land and labour through timeliness of operations, efficient use of inputs, improvement in quality of produce, safety & comfort of farmers, reduce loss of produce & drudgery of farmer and even helps in fighting against climate change. Due to intensive involvement of labour in different farm operations, the cost of production of many crops is quite high. In the present scenario farm mechanization has become a necessity due to higher costs, paucity of farm labour and ever-increasing demand for agri products.

Scope of Farm Mechanization

As in the rest of India, there has been a steady shift from animal power to electro-mechanical sources of power in Gujarat. The average farm power availability of Gujarat state is 2.565 kW/ha, which is above the national average 2.025 kW/ha. (*Source: Monitoring and Evaluation report of SMAM, May 2018, Ministry of Agriculture and Farmers Welfare, GoI*). There is a linear relationship between availability of farm power and farm yield. Therefore, there is a need to increase the availability of farm power from 2.02 kW per ha (2016-17) to 4.0 kW per ha by the end of 2030 to cope up with increasing demand of food grains. About 90% of power comes from tractors, engines and motors. The sale of tractors is on the rise and there are a good number of manufacturers making good quality farm implements. Although, the sale of tractors in India cannot be taken as the only measure of farm mechanization but largely it reflects the level of mechanization. There is a good scope to set up custom hiring among farmers having land holdings less than 4 ha in general and SF/MF in particular. There is huge potential for introducing improved equipments for performing various farm operations for cultivation of rice, wheat, pulses and cotton in Gujarat. Use of improved implements has potential to increase productivity up to 30 per cent and reduce the cost of cultivation up to 20 per cent. 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. Mechanization also helps in animal husbandry, dairying and fisheries.

2.1.3.2 Availability of Infrastructure, critical gaps and interventions required.

As per report published by Directorate of Economics and Statistics Govt. of Gujarat, total 7,73,221 Nos. of tractors were registered and kept for use in the State as on 31 March 2019. The district is having 1023 agriculture tractors in use as on 31 March 2019. Government of India is implementing “Sub Mission on Agricultural Mechanization (SMAM)” to promote the usage of farm mechanization and increase the ratio of farm power to cultivable unit area up to 2.50 kW/ ha from National average of 2.02 kW/ha. Financial assistance is provided under SMAM to the farmers for purchase of different agriculture machinery. Government of Gujarat is also providing subsidy assistance for purchase of tractors and other farm machineries. The State is implementing AGR 50, AGR 2, AGR 3 and AGR 4 farm mechanization schemes. AGR 50 scheme support for purchase Tractors; AGR 2 scheme for purchase of farm machinery other than SC/ST Farmers; AGR 3 scheme for purchase of farm machinery to ST Farmers; and AGR 4 scheme for purchase of farm machinery to SC Farmers. For purchase of tractors (a) upto 40 PTO HP model tractors, subsidy amount will be 25% of total cost of tractor or ₹45,000/-, whichever is less and (b) for above 40 PTO HP and upto 60 PTO HP tractor model Tractors, subsidy amount will be 25% of total tractor cost or ₹60,000/-, whichever is less. Farmers can apply for subsidy through online the i-khedut portal.

In Gujarat J Farm Services, an initiative by TAFE, has created a portal to register farm equipment's available with individuals/groups for use of small/marginal farmers on rental basis. J Farm Services has entered into collaboration with 10 State Governments. Similar kind of arrangement may be made in Gujarat.

Generally, the following infrastructure and support are required for the sector:

- Technical experts like mechanical or agricultural engineers/extension officials for creating awareness and guidance.
- Manufacturers of agricultural implements and equipment in your district.
- Dealers for tractors, power tillers, combine harvesters and other farm machinery in and around the district.
- Availability of diesel outlets.
- Facilities for repair and service.
- Skilled manpower for operation and maintenance of the machines.
- Adequacy of infrastructure and gap may be identified accordingly.

2.1.3.3 Assessment of Credit Potential for financial year 2023-24

Depending upon this data, the assessment of the potential for farm mechanization for the period of 2023 -24 is as given below.

Sr. No.	Activity	Units (Nos.)	Unit Cost (₹Lakh)	Phy. Unit	TFO (₹Lakh)	Bank Loan (₹Lakh)
1.	Mini Tractors	No.	3.30	180	594.00	475.20
2.	Power Tillers	No.	2.00	240	480.00	384.00
3.	Threshers	No.	2.00	270	540.00	432.00
4.	Rotavators	No.	1.20	348	417.60	334.08
5.	Paddy Transplanter	No.	2.70	132	356.40	285.12
	Total		-	-	2388.00	1910.40

Ground level credit flow to this sector are ₹599 lakh, ₹568 lakh and ₹410.45 lakh for the financial years 2018-19, 2019-20 and 2020-21 respectively. The block wise, item-wise credit potential have been indicated in Annexure I.

2.1.3.4 Critical interventions required for creating a definitive impact:

- Introduction of mechanization in other areas like primary and secondary tillage operations, plant protection, harvesting of crops, digging of root crops, threshing, winnowing, chaff cutting, grain cleaning and grading, handling etc. is required. Equipments for these operations need to be popularized and credit support to be extended.
- Technical experts like mechanical or agricultural engineers/extension officials for creating awareness and guidance.
- Good network of dealers in tractors and other mechanical devices of various brands is available in the district. Similarly, after sales service i.e. repairs and replacement of spare parts is available at each block at affordable cost.
- Migration of labour is a common phenomenon in the district. Farming suffers from non-availability of labour.

2.1.3.5 Suggested Action Points

- Establishment of Custom hiring centers from farmers group, agri entrepreneurs, FPO, PACS may be promoted **(Action: Banks, Agriculture Department)**
- 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)**
- Service units should be encouraged and mobile service units should be started. **(Action: Agri Dept, banks)**
- Training needs to be imparted to farmers and artisans in handling farm machinery and equipments, and ensure 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).**
- f) The 'Make in India' initiative launched by the Government can be used to support the manufacture of inputs and farm implements currently being imported. Promote business under MSME sector for manufacturing the agriculture implements. **(Action: Govt., Banks)**
- d) Encourage and guide the youth for start-up industries in development and production of innovative agriculture machinery and equipments. **(Action: Agri Incubation centers, Agri Dept, KVK, Agri University)**

2.1.3.6 Other Related Matters

- Banks may consider financing of servicing/repairing units to be set up by unemployed youth by popularising Agri clinics / Agri business centers scheme.
- Banks may finance the eligible and viable SHGs for post-harvest / processing equipments like cleaners, translators, seed drills, cono weeders, graders, dryers etc. for income generation to SHG members.

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.

Horticulture is an important segment of agriculture sector which contributes about one fifth share in the economy of the district. The congenial agro-climatic features favour the cultivation of Mango, Citrus, Chiku, Guava, Turmeric, Ginger which are the major horticulture crops grown in the district. Farmers are showing more interest in growing vegetables and spices like chilli, ginger and turmeric (Source: Department of Horticulture)

Agro climatic conditions of this district are conducive for development of various horticulture crops. Horticulture crops occupy 10.14 % of area under cultivation. The predominant horticulture crops are, Fruit crops like Mango, Sapota, Ber, lemon, Banana, Papita etc, vegetables like Tomato, Cabbage, Onion, Guar gum, Creeper Vegetables etc. the spices like Chilly, Garlic etc, flowers like Rose, Mogara, Lily. Marigold etc. and medicinal and aromatic plants like Ginger, Turmeric, Saunf, Ajwain etc

Area and production of major horticulture crops in the district during last three years is presented below: (source : doh.gujarat.gov.in)

(Area in Ha. and Production in MT.)

Sr · N o.	Crop	2018-19			2019-20			2020-21		
		Area	Prod uctio n	Prod uctiv ity	Area	Prod uctio n	Prod uctiv ity	Area	Prod uctio n	Prod uctiv ity
1.	Fruits	4034	72743	18.02	4034	72743	18.03	4266	79706	18.68
2.	Vegeta bl-es	6858	112250	16.37	6858	112251	16.37	8018	134225	16.74
3.	Spices	2334	29353	12.94	2434	29343	12.06	2525	32087	12.71
4.	Flower s	272	2788	10.25	272	2788	10.25	377	3550	9.42
	Total	13498	217134	16.14	13598	217125	15.96	14367	233584	16.26

2.1.4.2 Infrastructure and linkage support available, planned and gaps

Availability of Infrastructure and Critical Gaps/Interventions required

- **“I-khedut”** a portal to enable farmers apply online for various subsidy schemes, to provide information on list of dealers providing equipments, latest technical information, APMC market price, etc. has been launched by Government of Gujarat
- **Mission for Integrated Development of Horticulture (MIDH):** This Government of India scheme implemented in the State adopts an end-to-end holistic approach covering pre-production, production, post-harvest management, processing and marketing to assure appropriate returns to growers/ producers. In non MIDH district, MIDH components are covered under State Govt. schemes.
- Gujarat State Horticultural Mission (GSHM), a registered Society, has been formed for implementation of “National Horticultural Mission (NHM)” in the State. The mission is

being implemented in 21 potential districts and covers important crops of the State viz, Mango, Sapota, Aonla, Banana, Papaya, Lime, Cumin, Fennel, Flowers etc.

- State Government has schemes on cultivation, border plantation, inter cropping & crop rotation, Replacement of low value agricultural crops, Quality planting material, Micro Irrigation system, Cultivation of new crops, High Density plantation, Cultivation in compact block according to cluster approach.
- The Horticulture Department has been playing a vital role for area expansion, increasing production and productivity of horticultural crops by implementing several schemes. The Central Horticulture Experiment Station (CHEST), Vejalpur is actively involved in development and dissemination of horticultural technology specially tailored for the needs of population especially the tribals.
- Central Horticultural Experiment Station (CHES), Vejalpur is making available improved variety of fruit planting material for farmers in the area.
- Under Indo-Israel Project this district will have Center of Excellence for horticulture
- 43 pack houses are available in the district for post-harvest handling purpose.
- Project in the name of Aarthik Swavalamban has been launched by SRDC (Sericulture Research and Development Council) for Sericulture Promotional Program that how a farmer can initiate Sericulture farming. The SRDC is incorporated as Non - Profit making company under the "Registrar of Companies, Ministry of Corporate affairs, Government of India". Every farmer registered in the website www.sericulturecouncil.com will be issued an identity card by SRDC, training for sericulture activity, soil and water testing, stem supply of mulberry plants, assistance for chawki rearing house, silkworm seed supply, market linkage, crop insurance and loan up to ₹1,35,000/- for implementing the sericulture activity.

A. Activities planned/action points to address the critical gaps

- Farmers Producers Organisation will be formed for reducing input cost, optimization of farm implants, custom hiring of machinery and equipment collectivisation of farm produce, grading / sorting etc. for better price realization.
- Government of India has launched CSS scheme for Formation and Promotion of 10000 FPOs. At least two FPOs will be formed per district in next 2 years.
- APMCs needs to be upgraded and equipped for handling and storage of Horticulture Produce to maintain quality and freshness
- PACS/LAMPS needs to be encouraged for formation of FPOs and creation /upgradation of existing infrastructures for storage and handling of horticulture crop produce

2.1.4.3 Assessment of Potential for the financial year 2023-24

Last three year ground level credit flow to this sector are ₹262 lakh and ₹35 lakh for the financial year 2018-19 and 2019-20 respectively.

Sr No	Crop	Unit Cost (₹Lakh)	Units (Ha)	TFO (₹Lakh)	Bank Loan (₹Lakh)
1.	Mango (Kesar)	1.49	1635	2436.15	1948.92
2.	Ber	0.58	120	69.60	55.68
3.	Chikoo	1.29	510	655.88	524.70
4.	Lime	1.45	313	453.85	363.08
5.	Custard Apple	1.14	90	102.60	82.08
6.	Pomegranate	1.44	360	518.40	414.72
7.	Aonla	0.90	173	155.70	124.56
8.	Vegetables	0.23	3900	897.00	717.60
9.	Guava	1.10	385	423.50	338.80
10.	Medicinal & Aromatic Plants	0.94	30	28.20	22.56
	Total			5740.88	4592.70

2.1.4.4 Critical interventions required for creating a definite impact

- Extension services for Technology Transfer, horticulture crops with drip irrigation
- Promotion of Organic Farming, Provision of quality raw material, planting material
- Post-harvest crop management techniques, Cold Storages/godown/processing facility

2.1.4.5 Suggested Action points

State Government:

- The existing extension set up/network needs to be further improved for effective transfer of technology. Setting up of KVK for the newly formed district is necessary
- Bringing more area under horticulture crops, encouraging dry land horticulture by popularizing drip and related irrigation system for water saving.
- Strengthening fruits and vegetables marketing societies, preventing crop losses in glut periods, training farmers in post-harvest, packing and orchard management
- Production and supply of quality planting material & setting up of tissue culture units.
- Promoting of small growers collectives / organization and promoting of spices crops
- Establishment of supply chain infrastructure for Post-Harvest Management, packing, grading, cold storage, ripening chambers and marketing is required.
- Government to popularize corporate / contract farming, Hi-tech horticulture and organic farming of medicinal and aromatic plants on cluster basis and development of standard package of practices for organic cultivation and medicinal plants.
- FPOs may be encouraged to take up input procurement and output marketing activities.
- There is a need to sensitize farmers on Good Agricultural Practices (GAP) mainly to meet the export market standards for both open and protected cultivation.
- There is a need to set up cold storage facility so that farmers can go for potato cultivation.
- Non availability of Govt. nursery is a major drawback for newly formed district.
- For seeds, pesticides etc. majority of farmers are dependent on private sources.

b. Banks:

- Banks may finance to private nurseries, tissue culture units, creation of post-harvest marketing facilities, installation of micro irrigation systems etc. Banks may encourage and finance agri-graduates for establishing agri-clinics and agro service centers.
- Banks may encourage JLGs to take up Vegetables and flowers cultivation on leased lands.

c. Others:

- Awareness about various Commercial horticulture schemes of NHB and NMPB may be increased.
- KVK may demonstrate new agricultural techniques and ATMA may arrange for field level visits of new farmers to the field of successful farmers.

2.1.5 Forestry and Wasteland Development

2.1.5.1.1 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 7.61% 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 agro-ecological zones wherein maximum area of the State is in arid zone while minimum area is under heavy rainfall zone.

The total geographical area of this district is 253087 ha. Forest cover is 63748 ha accounting for 25.18 % of the geographical area. Besides, an area of 30962 hectares which includes – current fallows (5581 Ha), other fallows (13814 Ha.) and other wastelands (11567 Ha) can also be counted for Forestry & Waste land Development. (Source: Prov. Figures- DSO/DAO, Mahisagar)

Agroforestry Systems

Agroforestry systems, in addition to the economic benefits provide environmental gains leading to resilience of agriculture through adaptation/mitigation strategies in respect of climate change. Being perennials, the trees provide an element of long-term economic stability to the farmer in the event of a crop failure. Thus, broadly the Agroforestry Systems can be classified on the basis of structure i.e. its components and their arrangement (spatial & temporal) as also the functions they perform. The broad classification would be as under:

Agro-Forestry Systems			
Structural Basis		Functional basis	
Nature of Components	Arrangement of Components	Productive Function	Protective Function
Agri-Silvicultural Systems	Spatial Arrangement	Timber, Fodder & Fuel wood	Wind Breaks & Shelterbelts
Silvi-Pastoral Systems		Food, Fiber & Shelter	Soil Conservation
Agro-Silvi-Pastoral Systems	Temporal Arrangement	Non Timber Forest Produce	Soil Improvement
<p>➤ Agri- Component comprises of Foodgrains; Horticulture Crops viz. Fruits, Vegetables, Flowers, Medicinal & Aromatic Plants; Animal husbandry – Livestock Animals, SGP, Poultry, etc.</p> <p>➤ Silvi - Component comprises of Woody Perennial or Trees including Bamboos which is a grass – Primarily grown for timber, fodder & fuel wood, NTFPs</p> <p>➤ Pastoral - Component comprises of fodder grasses</p> <p>➤ Agro - Components only comprises of food grain component</p>			

2.1.5.2 Infrastructure and linkage support available, planned and gaps

As per the National Wasteland updation project, area under wastelands in Gujarat is 2174039 ha which is about 10 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.

GoI has formulated national agroforestry policy 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 agro-forestry 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.

- The district is having 38 Saw Mills depending on forest produce (Source: Gujarat Forest Statistics 2016-17). High quality seedling production centers have been established to increase productivity and yield of wood in agroforestry. These can provide planting stock to farmers at concessional rates.
- Afforestation of wastelands or planting of forestry crops helps in mitigating adverse effects of climate change. Forestry projects for addressing climate change issues needs to be implemented by Government/NGOs/PRIs through support under Green Climate Fund and National Adaptation Fund for Climate change.
- Forestry also includes farm forestry, social forestry, jatropha cultivation, bamboo plantations. Afforestation of waste lands by planting indigenous species will help in increasing the forest cover. As on 31 March 2018, 132 Joint Forest Management (JFM) Societies were registered under the Societies Registration Act with a total area of 38796 ha with them. The main function of these societies is to protect the forest from illegal tree felling by anti-social elements.

Gujarat State Forest Development Corporation Limited

- Engaged in collecting, processing and marketing of Minor Forest products
- Helps in forest resources utilization and tribal employment generation. Minor Forest Products are principal raw materials used for manufacturing of Ayurvedic medicines as well as herbal preparations and remedies.
- Forests of Gujarat have abundance of raw material for medicinal products. There is immense scope for cultivation of such herbs, shrubs and trees in the district which paves the way for farmers to take up income generation activities.
- If value addition activities are put in place like units for manufacturing of Ayurvedic products by the Corporation, it would not only enhance the collection of existing MFP but also offer scope of adding many more herbal products. This would lead to resource mobilization and employment generation for the tribal and rural poor.

2.1.5.3 Assessment of Credit Potential for 2023-24

Assessment for the year 2023-24 has been made at ₹ 524.41 lakh. The block-wise, item-wise, are indicated in Annexure I

Sr. No.	Activity	Unit Ha/Nos.	Unit Cost (₹Lakh)	Phy. Unit	TFO (₹Lakh)	Bank Loan (₹Lakh)
1.	Farm Forestry	Ha	0.56	138	77.28	65.69
2.	Waste Land Development	Ha	0.60	134	80.40	68.34
3	Jatropha Cultivation	Ha	0.71	202	143.42	121.91
4	Bamboo Cultivation	Ha	0.43	145	61.92	52.63
5	Teak Plantation 2 x 2	Ha	1.34	190	253.94	215.84
	Total		-	-	616.96	524.41

2.1.5.4 Critical Interventions required for creating definitive impact.

- The fact that area under forest cannot be expanded offers opportunities for planting trees in low productivity wastelands and farmlands. Development of this sector can receive a boost through flow of institutional finance. There exists a lot of scope for flow of institutional finance for activities like agroforestry, wasteland development, forest nursery, etc.
- Mahisagar forest consists of dry teak, very dry teak, dry deciduous scrub and dry mixed deciduous tropical forest. Under long term potential strategy, plants of Sagwan, eucalyptus and bamboo are being planted in forest areas.
- There is lack of incentive for undertaking agroforestry and farm forestry activities which is required to motivate farmers to avail credit for such activities.
- Transfer of technology from lab to land is very slow in this sector due to which farmers remain unaware of the technology developed by research institutes.
- Farmers are unable to get remunerative prices for their produce due to the absence of organized marketing facilities and other forward linkages.
- Government of Gujarat is encouraging farmers by organizing 'Van Mahotsav' at Village and Block levels which ensures active participation of people. Under Hariyali scheme 100 trees are being planted and maintained in each village.
- State Government is implementing 'Van Bandhu Kalyan Yojana' for tribal development in the district.
- Group approach has to be adopted and popularized for providing training to small and marginal farmers to take up planting of forestry species through suitable forms like agroforestry, farm forestry, silvipasture, etc.
- The need to make available easy finance for setting up nurseries to individuals/SHGs have to be addressed.

2.1.5.5 Suggested Action Points

a. State Government:

- Credit linked subsidy needs to be provided as incentive to involve farmers/ Corporates/ NGOs and other interested entities who would be encouraged to go in for cultivation of forestry species.
- Timely availability of good quality planting material is one of the constraints.
- Information about Government schemes such as Rejuvenation of Degraded Land through Forestry, Kisan Nursery Scheme, Social Forestry Schemes, etc. also needs to be disseminated among village panchayats.
- Explore the possibility of contract farming for raising Pulpwood Plantation in the wastelands.
- Government may consider the possibility of allotting the wasteland to the SHGs on lease basis for cultivation of forestry species for NTFPs and those having commercial value coupled with imparting suitable training.
- Training and extension services to the local tribal women for collection of minor forest produce need to be encouraged.
- The waste lands may be utilized to produce bio-diesel. Further, production of bricks from molasses and rice husks may be encouraged.
- In all natural resource management programmes, planting of forestry species needs to be incorporated as a component.

b. Banks:

- Banks may finance for commercially viable tree species viz., Neem, Casuarina, Teak, Jatrophia, Pongamia, Forest Nursery, Eucalyptus, Subabul, etc.
- Banks may finance SHGs/individuals for setting up of nurseries.
- The bankers may also seek assistance from the NGOs to prepare bankable projects in the backward areas for cultivation of varieties of Bamboo which could be used as a raw material for Paper industry and Bamboo craftsmen in the tribal belts of the district.

2.1.5.6. Other related matters

- Farm forestry, agro forestry and other trees plantation and forestry on wasteland, periphery of the land can be used to enhance farmers' income. Forest based village and cottage industries also offer scope for increasing farmers' income.
- Besides this, collection of non-wood forest products, forest based village & cottage industries, commercial nurseries etc. will show positive results in this direction.
- Forestry projects for addressing climate change issues needs to be implemented through support under Green Climate Fund and National Adaptation Fund for climate change.

2.1.6. Animal Husbandry - Dairy Development

2.1.6.1.1 Introduction

Dairy farming is one of the major subsidiary activities in the district providing employment opportunities to the rural poor. The total milk production in this district was 30.25 crore ltr during 2020-21. (AH, Mahisagar) The per capita availability of milk per day in the district is 832 gm as against the State average of 617 gms per day and recommended intake of 250 - 300 gms per day. The Panchmahal dairy union covering area of Panchmahal, Mahisagar and Dahod has milk processing capacity of around 11.00 lakh liters/day, however, during peak period highest milk processed per day was 13.98 lakh liters. Dairy is required to bring milk from neighboring districts for processing purpose. Thus, there is a good scope for increasing the milk production in the district. (Source : 37th Survey Report on Estimates of Major Livestock Products for 2019-20, Gujarat)

2.1.6.2 Infrastructure and Linkage support available, planned and gaps

The district is having good and high-yielding breeds of cattle and buffaloes. Gir and Kankrej breeds of cows and Jafarabadi breed of buffaloes are well known for their high milk yielding capacity. As per the latest livestock data, the district is having 310635 cattle/ cross bred cattle and 365486 buffaloes. The district has produced 2.94 lakh MT of milk in 2020-21. (Source: DSO, aankadiya ruprek Mahisagar 2020-21)

Estimated daily average milk yield per in milch animal for the year 2018-19 was as under in the district:

Sr No.	Type of animal	District Rank	District Avg. Milk yield in Kg	Gujrat State Avg. Milk yield/kg
1	Crossbred cow	7	4.52	6.43
2	Indigenous cow	9	2.31	2.76
3	Buffalo	7	2.40	3.93

(Source : 37th AH Survey, Gujarat)

Schemes of State Govt. /Central Govt.

- Government of Gujarat is providing subsidy on interest for establishment of 1 to 4 milch animal farm by small farmers, landless and poor families.
- Self-employment - 12 milch animals farm along with shed Department of Animal Husbandry, GoG scheme
- Scheme for maintaining of pregnant milch animal
- Grant for construction of Dudh Ghar at women oriented dairy cooperative societies.
- Fodder Minikits under Integrated Fodder Development Scheme / Fodder Minikits for SC sub plan / Tribal Area Sub Plan (TASP)
- Cattle shed subsidy scheme
- Assistance for power driven chaff cutter under TASP
- New Gujarat Pattern Scheme – Grant for economic development of tribal milk producers and milk co-op societies
- Dairy Entrepreneurship Development Scheme (DEDS) of GOI, being implemented through NABARD plays an important role in increasing finance for milch animals especially to small dairy farmers.

2.1.6.3 Availability of Infrastructure, Critical Gaps and Interventions required, Action Points/ Issues to be addressed:

I. Available infrastructure (Source DSO, Lunnavada and Panchmahal Dairy Union)

Veterinary Poly Clinic	1	A.I. Centres	688
Veterinary Centers	06	Animal Market	00
Mobile Veterinary Dispensary units	11	Dairy Coop Societies	1095
Milk Collection Centers	1095	Disease Diagnostic Lab	00

- Area under fodder cultivation during 2020-21 was 48588 ha and the fodder production was about 97176 MT.
- There is one animal market at Shehra in adjoining Panchmahal district.
- There are 1471 dairy cooperatives with a membership of 151873. Average daily procurement by these cooperatives was 8.29 lakh litres per day during 2020-21. Taking into account the milk purchased from the Panchmahal region, the capacity utilisation is 90 % and products manufactured are Flavour Milk, Ghee, Shrikhand, Butter Milk and Milk Powder. There are 02 milk chilling centres at Moti Sarsen and Salasar with a capacity of 0.64 lakh LPD and 12500 LPD respectively. There are 124 bulk milk coolers at various places with a capacity of 1000 to 1500 liters. The average capacity utilisation of these bulk milk coolers during 2020-21 was around 80%. (Source :DSO, Panchmahal)
- During 2019-20, the Union has supplied 67482 MT of cattle feed, vaccines and medicines are also provided by the Milk Union. Food and Mouth disease vaccination 10.35 lakh doses were given and for deworming 7.57 lakh doses were administered. A total number of 2395 Fertility Improvement camps were conducted by team of 10 doctors of Panchmahal Dairy Union covering 1,49,00 animals approx. New Calf rearing center was commissioned at Shehera with a capacity to accommodate 200 animals approx.
- Union has arranged through its 688 AI centers to cows/buffaloes 6.04 lakh artificial inseminations and pregnancy diagnosis of 4.04 lakh animals was done. Out of these inseminated ones, 2.01 lakh animals were found pregnant for the animal inseminated artificially. There is no problem in supply of vaccines for major diseases.

II. Infrastructural Development taken up in the past

Panchmahal Dairy Union – Animal breed improvement programme; progeny testing programme; milk productivity enhancement programme; fertility improvement programme, animal treatment and disease prevention services, Animal Nutrition, Awareness programme for members. The work in respect of calf rearing center at Gaman Bariana Muvada village of Sehehra completed. The new milk processing plant with installed capacity of 7.5 lakh lit/day was started at Taloja, Navi Mumbai. Godhra plant has started production of sweet items like Kaju Katri, Pedha etc.

III. Infrastructure likely to be developed

(i) Godhra Plant to introduce new products of “Paneer”, “Cup lassi” and “Flavored Milk – Amul Tru” (ii) A chilling center will be established in Sehehra taluka under clean-milk production approach (iii) Taloja plant to start production of Ice cream (iv) Tetra packing facility will be commissioned at Godhra plant (v) Panchamrut Parlours will be started on all the taluka centers within the milk shed area; (vi) Milk adulteration detection machines will be set up at all chilling centers of the milk union for examining all types of adulteration in milk (vii) Chopda Milk Centre, Jalgaon, Maharashtra is likely to increase daily milk processing capacity from 1.5 lakh liter to 3 lakh liter.

2.1.6.4 (A) Assessment of Credit Potential for 2023-24

Ground level credit flow to this sector are ₹2097 lakh, ₹2711 lakh and ₹2248.37 lakh for the financial years 2018-19, 2019-20 and 2020-21 respectively. The assessment of credit potential for the year 2023-24 is given in the table below:

Sr. No.	Activity	Unit (Nos).	Unit Cost (₹Lakh)	Physical Units	TFO (₹Lakh)	Bank Loan (₹Lakh)
1.	Cows (Gir)	2 Nos.	1.20	4200	5040.00	4032.00
2.	CB Cows	2 Nos.	1.20	1795	2154.00	1723.20
3.	Buffaloes Jafarabadi	2 Nos.	1.40	2260	3164.00	2531.20
4.	Cattle sheds (20 animals)	01 Nos.	1.38	690	952.20	761.76
	Total		-		11310.20	9048.16

The block-wise / activity-wise potential for this activity is indicated in Annexure-I.

2.1.6.4. (B) Assessment of potential for Working Capital (WC) -KCC – Dairy for 2023-24

The Scale of Finance(SOF) for Animal Husbandry (Dairy, Poultry, Sheep-Goat-Piggery) and Fisheries for Mahisagar District was fixed in DLTC meeting held on 19.01.2021 (Activity-wise SOF given in Annexure V) Keeping the above in view, Potential for Bank Loan towards WC for Dairy sector for the year 2023-24 has been worked as given below:

S No.	Type of Animal	Total No. of Animals in the District	No. of items reckoned for 01 Unit**	Unit Cost (₹Lakh) **	No. of Units of items available (3)/(4)	% age of Col.(6) 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	Cow	320859	1	0.132	320859	10	32086	4235.35
2	Buffalow	391599	1	0.132	391599	10	39160	5169.12
								9404.47
@As per data of DSO / AH Deptt, Mahisagar								
\$ Arrived at in consultation with the major Banks and Animal Husbandry Department of the District .								
**As per Scale of Finance fixed in DLTC of District								

2.1.6.5 Critical intervention required for creating a definitive impact

- The Panchmahal Dairy Union is conducting the 'Breeding Improvement Programme' and 'Calf Rearing Programme' aimed at nurturing the young ones, improvement of animal health and reduce infertility. This programme may be scaled up for creating greater awareness of producing quality animals.
- Arrangements for availability of quality animals needs to be done at each taluka level.
- Farmers need to be encouraged for taking high yielding fodder cultivation which may result in increase of milk yield of milch animals
- Area Based Scheme for purchase of Milch animals by dairy farmers for entire district has been formulated and more farmers are likely to opt for dairy farming.
- Assistance may be provided for setting up of vermi-composting units among Dairy farmers.
- To take care of the health needs of the animals, 06 more veterinary institutions per taluka are required.

2.1.6.5. Suggested Action Points

a. State Government:

- Government may set up Animal Breeding center in the district and AH training centers at the block level.
- The Government may increase the strength of veterinary doctors and staff so that proper veterinary services can be provided to beneficiaries in interior parts of district. DAH may bridge the gap in the veterinary institutional infrastructure by setting up additional veterinary dispensaries manned by veterinary graduates

- Availability of good quality animals at fair prices has become difficult in the absence of cattle marketing infrastructure. Establishment of specialized cattle markets by APMCs may be considered.
- There is a need to promote alternate source of feed and fodder to meet out the shortage of fodder. Assistance for Azolla cultivation among dairy farmers, setting up of cattle feed units, setting up of Fodder Banks is required.
- Establishing Milk Collection Centres, chilling plants /bulk milk cooling units in all talukas of the district through Milk union for enhancing the milk collection and ensuring supply of quality of milk to dairy processing plant.
- The department may develop fodder demonstration plots under irrigated condition in all the veterinary centers and give thrust to cultivation of green fodder, subabul, etc.

b. Banks:

- Banks need to step up financing for the activity as the credit flow to the sector is not commensurate with the rapid pace of demand and potentials available in the district.
- Proper identification of the beneficiary by the banks before sanctioning the loan and purchase of milch animals is essential for successful development of dairy sector.
- The banks may encourage setting up of mini-dairy units of 5 animals and above by individuals and SHGs with cost of shed, equipments and fodder cultivation as an integral part of the scheme.

2.1.7 Animal Husbandry - Poultry

2.1.7.1 Introduction

Poultry farming can be taken on a commercial basis and also as rural backyard units. They provide supplementary income to the underemployed rural poor besides providing nutritional security. The commercial layer population in the district was 187800 during 2019-20. The total Population of desi/ local birds as per the latest AH census is 600500 numbers. Egg production during the year 2018-19 was about 270.03 lakhs including production from desi birds. The per capita availability of eggs in the district is 39.23 eggs per annum. Per capita availability of eggs in the State for the year 2018-19 was 28 and country as a whole was 74. As the population of the State are primarily vegetarian, the actual demand is less, as against the nutritional requirement of 180 eggs per annum. The per capita availability of broiler meat is 4.46 Kg per annum. Problems in availability of labour and its high cost led to closure of many farms. Though not a traditional poultry district, the climatic condition of the district is suitable for poultry farming. Development of commercial poultry is yet to take roots in the district. (Source: 37th Annual Survey AH Gujarat 2019-20; Panchmahal Region includes Panchmahal and Mahisagar districts).

(Note : Separate data for Mahisagar district is not published)

2.1.7.2 Infrastructure and linkage support available, planned and gaps

I. Available Infrastructure

- Department of AH - Poultry is located at Dahod and looks after all developmental work in three districts of Panchmahal, Mahisagar and Dahod.
- The requirement of chicks, feed, medicines and vaccines in the district is met mostly from hatcheries in Anand & Kheda districts.
- The major constraint in promotion of poultry is that insurance companies are reluctant to insure the poultry projects. They opine that spread of disease/s among day old chick is the deterrent factor.
- The reluctance on the part of banks and the entrepreneurs are also a limiting factor in promotion of poultry farming.
- Required extension support, research institutions support and private extension support for production and productivity enhancement.
- Majority of population in the State is known for its vegetarian diet. This district is no exception. Hence the growth of this sector is not fast. However, keeping in view the good percentage of non-vegetarian community / population residing in main city, demand for poultry products may rise in coming years. Activity like backyard poultry along with farming can help farmers in increasing their income. Further, due to increased demand for protein rich diet there is a good scope for poultry activity.

2.1.7.3. (A) Assessment of Credit Potential for 2023-24

The Scale of Finance (SOF) for Animal Husbandry (Dairy, Poultry, Sheep-Goat-Piggery) and Fisheries for Mahisagar District was fixed in DLTC meeting held on 19.01.2021 (Activity-wise SOF given in Annexure V) Keeping the above in view, Potential for Bank Loan towards WC for Poultry sector in the District for the year 2023-24 has been worked out in consultation with the major Banks and Animal Husbandry department as given below:

The ground level credit flow to this sector during 2019-20 was ₹2663 lakh. The assessment of credit potential for the year 2023-24 is given in the table below:

Sr. No	Activity	Unit (No/Area)	Unit cost (₹ lakh)	Physical Units	Total Financial Outlay	Bank Loan (₹ lakh)
A.	Term Loan					
1.	Broiler birds (1000)	Nos.	0.36	498	179.16	143.32
2.	Layers (300)	Nos.	1.36	240	326.40	261.12

Sr. No	Activity	Unit (No/Area)	Unit cost (₹ lakh)	Physical Units	Total Financial Outlay	Bank Loan (₹ lakh)
	birds)					
B.	Working capital					
1.	Broiler (100 birds)	Nos.	0.066	151	9.97	9.97
	Poultry Total (A+B)				515.53	414.41

Unit cost for working capital has been rationalized considering the own contributions in respect of labour, feed etc. for the small number of new units.

2.1.7.4 Critical intervention required for creating a definitive impact

- Poultry layer farming is to be encouraged in the district. Seeing the demand and also availability of Govt subsidy, peoples may be motivated for taking up layer farming as better income generation activity. The climate of the district offers good scope for layer farming.
- Considering the importance and strategic location of this district, the activity offers ample scope for good growth.
- The situation may be changed through gradual creation of awareness among the masses, especially the younger generation, about the nutritional value of poultry meat/eggs for human food.

2.1.7.5. Suggested Action Points

State Government:

- There is a need to establish independent AH- Poultry Department offices in two districts of Panchmahal and Mahisagar.
- Suitable extension support/ research institutions and private extension support needs to be provided.
- 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.
- The Department of Animal Husbandry may provide training to the beneficiaries on poultry activity to enable them to avail of financial assistance from banks especially under government sponsored schemes.
- AH department may conduct training programmes for entrepreneurs on commercial poultry farming and backyard poultry.
- AH Department should make arrangement for door-step expert advice.

Banks:

- Banks may finance for small units of poultry sheds and poultry equipments to farmers who would be taking up the activity.
- Scope for contract farming i.e. tripartite agreement with processors / banks and farmers needs to be explored.

Insurance companies and others:

- Insurance companies may devise suitable insurance product, so that poultry projects are suitably insured.
- Steps may be taken to bring about awareness of bio-security and ensure minimum distance of 600 m between 2 units that would prevent spreading of epidemics like avian flu.

2.1.7.6 Other related matters

- Poultry development is considered as an important allied commercial activity. Poultry farming covers poultry breeding and hatcheries, commercial layer units, commercial broiler units, chicken retail outlets etc. Poultry farming provides subsidiary income and gainful employment to farmers and rural youth throughout the year. Among the various poultry rearing activities, layer and broiler farming are popular on commercial lines.
- The poultry farming has distinct advantage over other vocations as the land requirement is small, returns are faster with a little initial capital investment. Government of Gujarat has notified “Gujarat State Poultry Farms Registration Policy” for the welfare of the State poultry farmers. Sales Tax exemption on sale of day old chicks, adult birds, culls, broilers, exemption from the stamp duty on poultry production, liberalized allotment of Govt. wasteland for poultry farming etc. are notable initiatives of the State Government to facilitate faster development of Poultry sector.

2.1.8 Animal Husbandry - Sheep Goat and Piggery Development

2.1.8.1 Introduction

Sheep and Goat rearing activity is by and large undertaken by the tribal community. Sheep and Goat rearing schemes are mainly contemplated under the Government Sponsored Schemes. These activities provide nutritious food material as well as supplementary income to small and marginal farmers and agricultural labourers. The total sheep and goat population of the district is around 97972 and 66893 respectively (as per livestock census 2019, Gujarat). The estimated average meat production of Panchmahal region per year from sheep and goat is about 1302 MT. This region ranked third in production of 27490 Tonnes of Goat Milk with 8.62% of overall goat milk production in Gujarat. The estimated production of wool in the district was 2 MT and Panchmahal region contributes around 0.09% of wool produced in Gujarat. (Source : 37th Survey Report on Estimates of major Livestock Products 2019-20 – Gujarat)

2.1.8.2 Assessment of credit potential for the period 2023-24 (Physical and financial terms)

The Scale of Finance(SOF) for Animal Husbandry (Dairy, Poultry, Sheep-Goat-Piggery) and Fisheries for Mahisagar District was fixed in DLTC meeting held on 11.11.2021 (Activity-wise SOF given in Annexure V) Keeping the above in view, potential for Bank Loan towards WC for 'sheep and goat' in the District for the year 2023-24 has been worked out in consultation with the major Banks and Animal Husbandry department as given below:

Sr. No	Activity	Unit (No/Area)	Unit cost (₹lakh)	Phy. Units	TFO (₹lakh)	Bank Loan (₹lakh)
A.	Term Loan					
1	Goat Rearing (10+1)	No.	0.45	1080	486.00	388.80
2	Sheep Rearing (20+1)	No.	0.75	90	67.50	54.00
	Subtotal				553.50	442.80
B.	Working capital					
1.	Goat Rearing (10)	No.	0.066	800	52.80	52.80
2.	Sheep Rearing (10)	No.	0.100	7700	770.00	770.00
	Subtotal					822.80
	Sheep , Goat & Piggery Total (A+B)					1265.60

2.1.8.3 Infrastructure and linkage support Available, Planned and gaps

- This activity has very good potential in Balsinor, Kadana and Lunawada which are tribal dominated blocks of district. Financial assistance/ loans may be provided to the farmers through JLG mode. This may help in achieving doubling of farmers income by 2022 through this additional activity.
- Veterinary infrastructure available in the district is discussed in dairy chapter. Veterinary infrastructure mainly caters to the needs of AH Dairy Sector.
- Of the total forest area of 63748 ha, permanent pasture or grazing land available is 6218 ha giving good scope for Goat and Sheep rearing schemes. (Source : DSO, Mahisagar 2016-17) Animals are kept in local shanties. Animal Husbandry Department extends veterinary facilities.

2.1.8.4 Critical intervention required for creating a definitive impact

Availability of good quality animals at fair prices has become difficult in the absence of marketing infrastructure. Establishment of sheep & goat markets by APMCs may be considered by availing subsidy under AMI scheme.

2.1.8.5 Suggested action points

- A modern abattoir can be established either under private sector or as a joint venture with participation from Government of Gujarat.

- Taking into growing demand financing to this activity may be done through JLG mode. Experiment in this regard done in Ghoghumba block has shown very good results.
- Scope for contract farming : tripartite agreement with processors/ banks and farmers may be tried.

2.1.8.6 Other related matters

The district, being a tribal district, has good scope for Goat and Sheep rearing which is predominantly practiced in hilly and remote tribal areas. Goat rearing activity with Surti breed is practiced in tribal dominated rural areas. There is ample scope for improving the entrepreneurship skills, and scientific knowledge. This activity on very moderate scale is undertaken by farmers in Kadana and Santrampur blocks. Goat rearing activity was recently taken up by few farmers through JLG mode which has helped them to increase their earnings.

2.1.9 Fisheries

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.

Mahisagar being land locked district, there exist scope for fresh water fisheries. The fresh water fisheries are further divided into Capture fisheries and Culture fisheries. The flow of water in the river bed is not sufficient for culture fisheries. Therefore, the capture fisheries are possible in the reservoirs of Kadana, Panam and Deo Dams. These reservoirs are given on lease basis for fishing activity. The reservoirs have been reserved for the Tribal Federation, Tribal Fisheries Cooperatives Societies and tribal beneficiary/ies. These are allotted on upset price which is fixed by the Fisheries Department.

2.1.9.2 Infrastructure and linkage support available, planned and gaps

Availability of infrastructure

- There are 11067 fishermen and 53 Fisheries related activity centers in the district. There are 53 village ponds in undivided Panchmahal District having 407 ha of area. There are 03 reservoirs and 23 irrigation tanks having total 10318 ha of area which is also used for aquaculture. In Mahisagar district there are 8 Fisheries Cooperative Societies as on 31 March 2019 with 2247 members. The district is having 1 patrolling boats of the Fisheries Department and 1161 non mechanized boats. Total fish production of Mahisagar district as per available data is 837 MT for the year 2018-19. (Source: DSA 2019 – DSO , Godhra & Fisheries Department, Godhra & Kadana)
- Fisheries Department, Godhra has two fish seed rearing farms, one at Godhra and other at Kadana in Mahisagar district. Seasonal spawn rearing is done on ponds/ constructed ponds at Rayanwadia, Panam, Vinzol, Vanscot, Dhanitra, Karavai, Dedavada etc.
- Gujarat Fisheries Central Co-op Association Ltd. is trying to improve the socio-economic condition of the fishermen in the State. GFCCA is the main carrier of all governmental and institutional assistance to the fishermen in the State. It is also the major implementing agency for the developmental project mooted by the Government.
- Government has come out with Blue Revolution, the Neel Kranti Mission, which has the vision to achieve economic prosperity of fishers and fish farmers as well as contribute towards food and nutritional security.
- Govt. of Gujarat supports most of the activities associated with fisheries e.g. development and exploitation of fresh water fisheries, help in marketing of fresh water fish, fishing boats, construction and supply of tin boats, different sizes of aquarium and fish, etc., production and distribution of fish seeds-spawn, fry and fingerling of Indian Major Carps. It also implements Group Accidental Insurance Scheme for the fishermen.
- Tanks in the district need desilting at regular intervals for taking up inland fisheries activities. Non-strengthening of embankment of the lakes/tanks, non-provision of shutters in the canals are the bottlenecks.
- Non-availability of suitable land for development of fish ponds and hatcheries
- Fish processing facilities, marketing outlets etc. are not available in the district

Infrastructure plan for 2023- 24

1. Desilting of ponds lake, deepening of tanks and reservoirs to improve fish production

2. Establishment of fish/prawn disease diagnostic labs
3. Training programmes with exposure visits / demonstrations to motivate fish farmers.

Infrastructure Gaps

- Regular desilting of tanks required for taking up inland fisheries activities.
- Weak embankment of the lakes/tanks, non-provision of shutters in the canals
- Suitable land for development of fish ponds / hatcheries fish processing facilities, marketing outlets etc. are not available in the district.

2.1.9.3 (A) Assessment of credit potential for 2023- 24

The potential under Inland Fisheries for the year 2023 - 24 is assessed at ₹180.16 lakh. Detailed assessment is given in the following table:

Sr. No.	Activity	Unit (Nos. /Ha)	Unit cost (₹lakh)	Phy Units	TFO (₹Lakh)	Bank Loan (₹Lakh)
1.	Fish Ponds (Renovation)	Ha	3.50	37	129.50	110.08
2.	Reservoir unit-small boat and nets	Nos.	1.65	50	82.45	70.08
	Total		-	-	211.95	180.16

2.1.9.3 (B) Potential for Working Capital (WC) -KCC – Fishery, for 2023-24

The Scale of Finance(SOF) for Animal Husbandry and Fisheries for Mahisagar District was fixed in DLTC meeting held on 11.11.2021 (Activity-wise SOF given in Annexure V). Potential for Bank Loan towards WC for Fishery in the District for 2023-24 is given below:

Sr. No.	Item	Total No. of Items @	No. of items reckoned for 01 Unit**	Unit Cost (₹Lakh) **	No. of Units of items available (3)/(4)	% age of Col.(5) for which potential for Bank Credit is envisaged \$	No. of Units 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	Fisheries Pond	21	1	1.32	21	10	2	2.64
2	Small boat/net	202	1	0.275	202	10	20	5.50
	Total							8.14

@As per data of Fisheries department of the district

\$ Arrived at in consultation with the major Banks and Animal Husbandry Department of the District

**As per Scale of Finance fixed in DLTC of District

2.1.9.4 Critical intervention required for facilitating definite impacts

- Village ponds are very good resource to undertake effective fish culture for generating employment at village level. District Fisheries Authorities may take lead for using them.
- Marketing and service unit facilities should be created. One Fish market at district/block headquarters need to be set up.
- There is a need for deepening of tanks and reservoirs to improve fish production.
- The activities like fresh water prawn farming, ice box supply for fish preservation, fish drying may be encouraged in the district.

2.1.9.5 Suggested action points

A) Area Based Schemes

In charge, Fisheries in the district may plan preparation of Area Based Schemes for identified region of the district having availability of backward and forward linkages in

association with NABARD and other Stakeholders with monitoring mechanism for upgrading the schemes including midterm correction, if warranted.

B) 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 District Fisheries Authorities, GOG by availing the financial assistance under NFDB schemes, which have been merged under an Umbrella of Blue Revolution.

C) 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. The Centrally Sponsored Scheme (CSS) Component is further segregated into Non-beneficiary oriented and beneficiary orientated sub-components/activities under the following three broad heads:

(i) Enhancement of Production and Productivity

- (i) Implementation of the scheme requires Cluster/area-based approach to get optimal outcomes with requisite forward and backward linkages and end to end solutions.
- (ii) To enhance production and productivity, quality, productive utilization of wastelands and waters for Aquaculture various technologies like Re-Circulatory Aquaculture Systems, Cage Cultivation etc. will be used.
- (iii) To increase the bargaining power of fishers and fish farmers Collectivization would be done through Fish Farmer Producer Organizations

(ii) Infrastructure and Post-harvest Management

- (i) Aqua parks would be developed under the scheme as the hub of multifarious fisheries activities/facilities
- (ii) During ban/lean period Annual Livelihood support would be provided to fishers etc.

(iii) Fisheries Management and Regulatory Framework

- (i) Social, physical and financial security for fishers and fish ranchers
- (ii) Active fisheries management and administrative structure

D) Doubling of fishermen 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.

2.1.9.5 Other related matters

1. Department of Fisheries may consider organizing fisher men / women into SHGs.
2. Specific training programme for upgradation of skills of SF/MF, SHGs/ JLGs on Culture cum Capture fishery and Ornamental fish rearing etc., specific to district be planned

2.1.10 Farm Credit – Others – Bullock, Carts, Two Wheelers etc.

2.1.10.1 Introduction

Animals are considered to be backbone of rural economy in India. Draught animals (or Working animals) play a dominant role in our rural economy. Apart from the manual labour the traditional cultivation in India is based on use of animal power. This localized resource is exhaustible and available with farmers and which is yet to be optimized properly. Bullocks, buffaloes and camels are the major draught animals for field operations.

The work animals and carts provide vast employment opportunities to the unemployed rural youth. Draught animals provide more power than all our powerhouses do. Replacing them would entail a huge investment in electricity alone, over and above the loss of farm economy of manure and cheap fuel especially in a scenario where there are large number of small and marginal farmers. Further, the work animals/animal driven carts are employed both in agricultural operations as well as in transportation of goods and human beings. Animal power can also be used for water-lifting, milling, logging, etc. As per the data available there were 4967 bullocks available in the Mahisagar district. (Source: DSO 2016-17)

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

2.1.10.2 Infrastructure and linkage support available, planned and gaps

The district is having more tribal population. Majority of the population is very poor. They do not even have animals for ploughing their land.

2.1.10.3 Assessment of potential for the financial year 2023-24

Assessment for the year 2023-24 has been made at ₹ 982.24 lakh. The block –wise, item-wise potential has been indicated in Annexure I

Sr. No.	Activity	Unit	Unit cost (₹Lakh)	Units	TFO (₹Lakh)	Bank Loan (₹Lakh)
1.	Bullocks (Pair)	1+1 Unit	0.60	465	279.00	223.20
2.	Carts (tyre)	1 Unit	0.80	316	252.80	202.24
3.	Two wheelers	Nos.	0.70	780	546.00	436.80
4.	Misc. Agricultural advances	Nos.	0.50	300	150.00	120.00
	Total		-	-	1227.80	982.24

2.1.10.4 Critical interventions required for creating a definitive impact

- The district is having more tribal population. Majority of the population is very poor. They do not even have animals for ploughing their land. Therefore, Government Department may bring about a suitable subsidy scheme to provide draught animals at reasonable cost.
- The number of operational land holdings of SF/MF are 73948 covering 55360 ha of land and of other farmers (more than 2 ha) are 21522 covering 78734 ha of land. These SF/MF are potential clients for Bullocks/Carts activities and hold good scope for bank financing in the district. As such, these SF/MF depend on bullocks for farming and also for transportation purposes. Due to bullock carts, it is convenient for farmer to bring raw materials like seeds, fertilisers, plants etc. and also easy for transportation of food grains to godowns and weekly haats.

2.1.10.5 Suggested Action Points

- The credit gap could be filled by increasing financing under SHGs / Schemes of Animal Husbandry Department and Tribal Sub Plan.
- Farmers need to be encouraged to use bullock carts of pneumatic tyre carts.
- Veterinary hospitals, doctors should also be available at every taluka.

- Banks to come forward for financing to genuine borrowers under this sector. Banks to ensure that the financing under the particular head is correctly reflected under that activity code in the LBR returns.

2.1.10.6 Other Related Matters

As fossil fuels are nonrenewable and contribute to greenhouse gas emissions, use of animal energy which is clean should be increased as much as possible. It is very sustainable method of commuting where road connectivity is poor and time is not a limiting factor. It is environment friendly and pollution free. Deforestation will be reduced as the improved carts will use steel as the main materials.

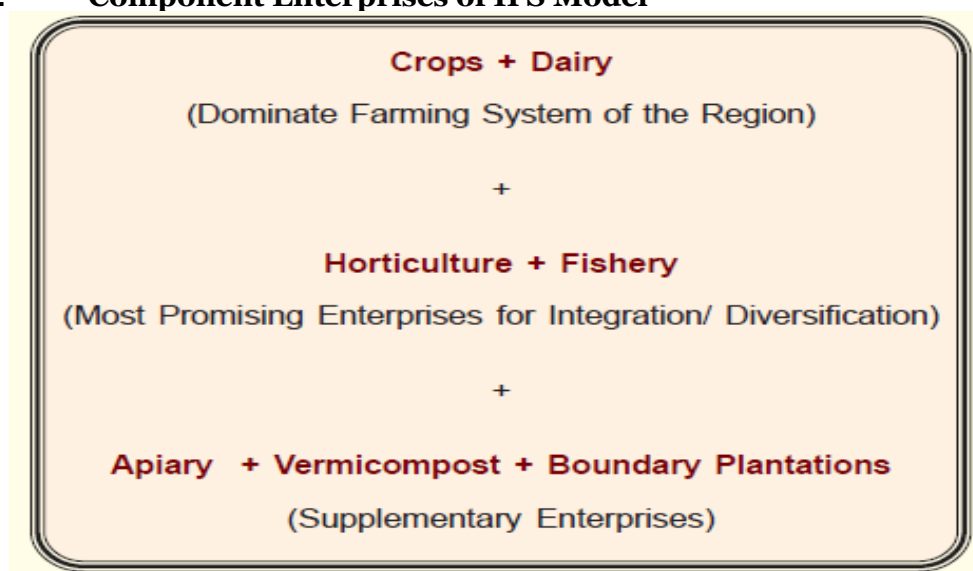
2.1.11 Integrated Farming System

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.

2.1.11.2 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:

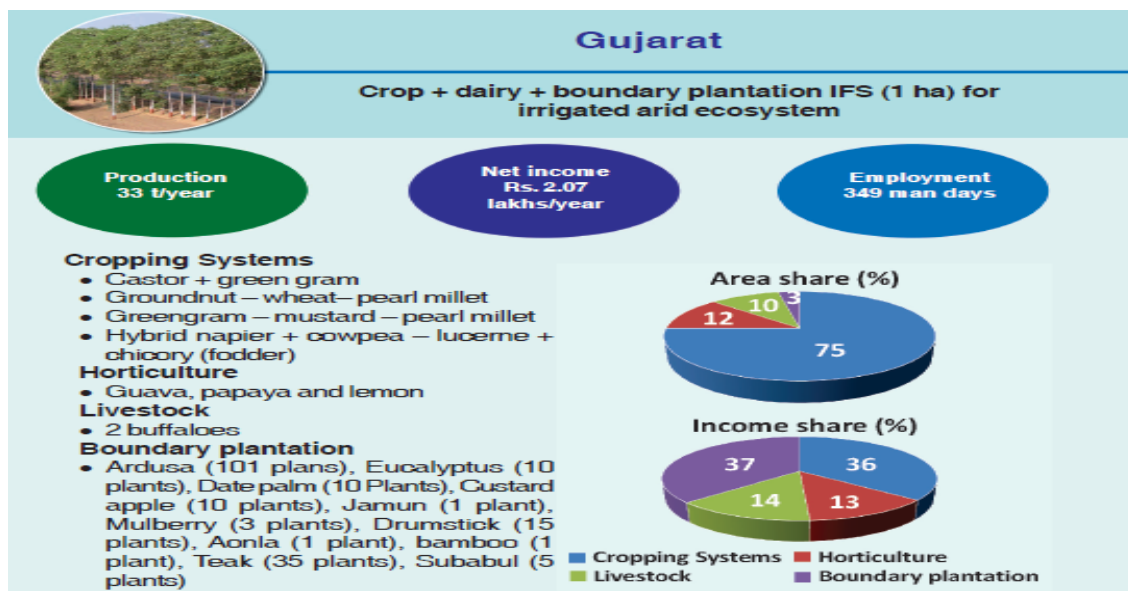
- IFS by virtue of intensification of crop and allied enterprises provides opportunity to increase economic yield per unit area per unit time.
- Each and every inch of land area is effectively utilized. Growing of perennial fodder legume trees in the border and watercourses is a recommended practice in IFS. This helps in supplementing legume fodder as well as enriches soil nutrients by fixing the atmosphere nitrogen.
- Soil fertility and productivity enhancement through organic waste recycling and increased sustainable farm income.
- IFS supplements in meeting the energy and timber needs of rural households and also timber needs of construction sector in a cost effective manner.
- In IFS, farmers are bound to get regular income. When farmer feel that his/her standard of living is on par with others, it will act as a booster to continue agricultural profession without any reluctance among most of the farmers.

2.1.11.3 Policy support

The developmental programmes of Government of India, State Government, National Horticulture Board etc. such as Agri-implement subsidies, Agriculture support schemes for Farm Mechanization, Horticultural aid schemes for setting up of nutritional gardens, Animal Husbandry Aid Scheme, Fisheries Aid Scheme which directly or indirectly support Integrated Farming Systems.

2.1.11.4 State 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. State specific IFS models are available from the link given here: http://www.iifsr.res.in/sites/default/files/prog_files/Bulletin_IFS_July_2020.pdf. Location specific IFS models were also evolved by SAUs. An IFS model for Gujarat prescribed by SDAU is represented below:



2.1.11.5 District IFS Models

Mahisagar district is a traditional agricultural economy which constantly depends upon traditional food grain crops. Although there is much scope for cultivation of high value crops like cotton, groundnut, oilseeds, fruits, vegetables, condiments / spices, low value cereals and other crops.

In Mahisagar, as per the discussions with KVK, Vejalpur, the most suitable model of IFS is Crop + Horticulture + Dairy + Poultry + Vermicompost.

Based on the discussion with line departments, the IFS model for 1 Ha. land area suggested for the district is as under:

Component	Area (ha.) / Livestock (Nos.)
Crops (Paddy, Maize, Tur, Groundnut)	0.6
Dairy (2 HF CB cows)	0.03
Horticulture (mango and vegetables)	0.3
Agro – forestry (teak and bamboo)	Border plantation
Vermi-compost	0.02
Farm pond	0.04

The credit potential is projected under respective sectoral chapters.

2.1.11.6 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) 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.

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)

2.2.1.1 Introduction

Warehousing plays a very vital role in promoting agriculture marketing, rural banking, financing and ensuring Food Security in the county. It enables the markets to ease the pressure during harvest season and to maintain uninterrupted supply of agricultural commodities during off season. Hence, it solves the problems of glut and scarcity, which are the usual problems in agricultural marketing. Though warehousing is an independent economic activity, yet is closely linked with production, consumption and trade. Warehousing promotes grading of produce, standardization and quality control. These factors make it the most important auxiliary service for development of trade and commerce. 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.

2.2.1.2 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.
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.
3. The Agricultural Marketing Infrastructure (AMI) sub-scheme of ISAM is being implemented by the Ministry of Agriculture and Farmers' Welfare, Government of India. The AMI sub-scheme of ISAM is applicable for new credit linked projects, where term loan has been sanctioned by eligible financial institutions from 22.10.2018 onwards. NABARD is the channelizing agency for release of subsidy @ 25% to 33.33% of the capital cost for institutions eligible for refinance by NABARD or any other FI such as State Financial Corporations (SFCs) approved by DAC&FW. The Ministry of Agriculture & Farmers' Welfare, Govt. of India, have approved the continuation of AMI sub-scheme of ISAM up to 30 September 2022.
4. Agri Marketing Infrastructure Fund (AMIF), with a corpus of ₹2,000 crore for AgriMarket Infrastructures, has been created with NABARD for development and upgradation of agricultural marketing infrastructure in Gramin Agricultural Markets and Regulated Wholesale Markets. AMIF would provide the State/UT Governments subsidized loan for their proposal for developing marketing infrastructure in 585 Agriculture Produce Market Committees (APMCs) and 10,000 Grameen Agricultural Markets (GRAMs). States may also access AMIF for innovative integrated market infrastructure projects including Hub and Spoke mode and in Public Private Partnership mode. In these GRAMs, physical and basic infrastructure will be strengthened using MGNREGA and other Government Schemes. In this scheme, the interest subsidy will be provided by DAC&FW to NABARD in alignment with annual budget releases during 2018-19 and 2019-20 as well as up to 2024-25. The Scheme being demand driven, its progress is subject to the demands from the States and proposals received from them.

5. In case of FPOs, the credit guarantee may be availed from the facility created under FPO promotion scheme of DAC&FW. All loans under this financing facility will have interest subvention of 3% per annum up to a limit of ₹2 crore. This subvention will be available for a maximum period of 7 years. The extent and percentage of funding to private entrepreneurs out of the total financing facility would be fixed by the National Monitoring Committee. NABARD is extending Special Refinance Facility at 3% p.a. for transforming PACS as MSC; the facility would be eligible for 3% interest subvention.
6. 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.
7. The integration of e-NWR on the e-NAM portal allows farmers to remotely sell their warehoused produce online at any mandi.
8. 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.
9. 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.
10. 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.
11. 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).
12. Availability of land, entrepreneurial mindset, skilled workforce in creation and maintenance of godowns is essential for ensuring success of warehousing.
13. 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.
14. 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.
15. The enhancement of MSPs by the GoI creates potential to usher in prosperity for the farmers. Now farmers shall have higher loan to value.

Existing Capacity

Details	Taluka	Capacity (MT)	Number of Units
Warehouses/Godowns	Lunawada	886	3
Market Yards			3
Cold Storage Units/ Cold Chains		2500	1

2.2.1.3 Assessment of credit potential for the period 2023-24

Assessment for the year 2023-24 has been made at ₹ 1282.46 lakh. The block-wise, item wise potential has been indicated in the Annexure –I.

(₹ lakh)

Sr. No.	Activity	Unit (Nos.)	Unit Cost	Physical Units	Total Financial Outlay	Bank Loan
1.	Cold Storage (500 MT)	Nos.	75.00	05	375.00	300.00
2.	Rural Godown (200 MT)	Nos.	18.76	30	562.80	450.24
3.	Rural Godown (160 MT)	Nos.	15.12	44	665.28	532.22
	Total				1603.08	1282.46

2.2.1.4 Critical interventions required for creating a definitive impact

1. Agencies /institutions are to be specified who would implement the actions suggested especially those are integral to achieving the potentials so mapped.
2. 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.
3. **Creating awareness among the farmers on benefits of NWR/e-NWR :** 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. Godowns owned by PACS must be brought under e-NWR system.
4. **Streamlining supply chains :** Clusters may be identified and FPOs may be promoted on large scale bringing in economies of scale. e-NAM registration may be facilitated to bring in efficient price discovery.
5. Setting up of **Agricultural Economic Zones (AEZs)** on the lines of Special Economic Zones (SEZs) may be allowed by the Government

2.2.2 Land Development, Soil Conservation and 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.

This district falls under Middle Gujarat agro-climatic zone. Major soil types of the district are deep black soils, medium black soil and loamy sand. These soils are medium in Nitrogen, low in Phosphorus, high in Potassium, low in Sulphur, marginal deficiency in Zinc and Magnesium, and high deficiency in Iron.

The River Mahi originating in Southern Rajasthan is passing through Panchmahal, Mahisagar, Vadodara, Kheda and Anand districts in Gujarat and is draining into the Arabian Sea at the Gulf of Cambay. Even though Mahi basin has a high density of trees and is characterized by rich biodiversity, an undulating topography coupled with sandy and loam soil renders the area highly susceptible to land degradation and erosion. Absence of vegetation leads to formation of deep gullies and ravines in the commons and private lands. Dug wells and bore wells are major source of irrigation. As per stage of ground water development all the talukas are classified as safe. However, high levels of nitrate and Fluoride are reported in Ground water.

Depending on rainfall, topography, agro-climatic zone, source of irrigation, stage of ground water development, 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
- Water Management – farm ponds
- Soil and Water Conservation – 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

- Credit potential exists for post watershed treatment activities in watershed areas
- GOI subsidy to farmers for soil and water conservation measures like bunding, trenching, farm ponds under National Mission for Sustainable Agriculture
- Soil health cards are issued to farmers based on soil testing under National Mission for Sustainable Agriculture to encourage balanced use of fertilizers

2.2.2.3 Assessment of Credit Potential for 2023-24

Assessment of potential for land development activities like bunding, trenching, land levelling and farm ponds is arrived at as ₹1072.23 Lakh for 2023-24.

Sr. No	Activity	Unit (ha/ Nos)	Unit Cost (₹Lakh)	Phy. Units	TFO (₹Lakh)	Bank Loan (₹Lakh)
1.	Bunding and trenching (as field level soil and water conservation activities)	Ha	0.21	2620	550.20	440.16
2.	On farm Development Work – Land Levelling	Ha	0.29	1673	491.86	393.49
3.	Farm Ponds as water harvesting structures(20Mx20Mx2M)	NO	0.81	370	298.22	238.58
	Total				1340.28	1072.23

2.2.2.4. Critical intervention required for creating a definitive impact.

- 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 farm pond along with cropping system of pulses millets and oil seeds for improvement in water use efficiency , cropping intensity and income security
- Farmers should be encouraged to undertake water harvesting structure like farm ponds for harvesting rain water in deep black soils, medium black soils and recharge of ground water in loamy sand soils of the district.
- 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 and farm ponds through bank credit
- Extension of bank credit for on farm development works like land levelling and bunding in command area of canals as 25,937 Ha is irrigated by canals
- Focused research on integrated farming system for sustainable land use and income security for farmers

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.
- Given that district receives medium intensity monsoon rain fall and hard rock is the major hydrogeology, it can be harnessed through construction of checkdams , nala bunds and percolation tanks for artificial recharge of ground water and improvement in quality of ground water.
- Setting up mobile soil-testing labs and brick and mortar labs under PPP mode

2.2.2.6 Other related matters

- Through proper management of land and productivity 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 Anand Agriculture University 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

2.2.3 Agri. Infrastructure –Others

2.2.3.1 Introduction

1. Agricultural Biotechnology is an area of agriculture science that involves techniques such as genetic engineering, tissue culture, molecular diagnostics etc. to modify living organisms. The idea behind the same is to develop genetically modified crops/other organisms, with qualities such as drought-resistance, disease resistance, higher nutritional content, and development of biological pesticides and bio-fertilizers- in effect leading to higher and more stable crop yields.
2. Agriculture biotechnology can thus address the growing stress on food-production and unique 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 *vide* Circular No. RBI/FIDD/2020-21/72 dated 04 September 2020 (updated on 26 October 2021), 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.**

2.2.3.2 Infrastructure and Linkage support available, planned and gaps:

- A. **Seed Processing:** Seed processing is a crucial step in refining post-harvested seed to its purest form for replanting purposed and human/animal consumption. 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. GUJCOMASOL federation is engaged in procurement, processing and marketing of various groundnut, castor, mustard seed, cottonseed etc. on a massive scale. They have 03 seeds processing plants. In the private sector too, Gujarat has the support for quality seeds procurement and processing. For example, GASCO Seeds has been recognized as pioneer in seed industry in Saurashtra region. It produces seeds of Hybrid Bajra, wheat, castor, pulses and vegetables. The availability of good quality seeds is required to be further enhanced. For that, access of farmers to retail network of good quality seeds and HYV seeds needs to be increased, while curbing the menace of fake and uncertified seeds. Awareness drives of farmers with KVKs can also be undertaken, so that they understand the authentic certification of seeds. Interestingly, in a few parts of the country, there has been deployment of advanced traceability certification through block-chain technology to ensure that farmers are not cheated with fake and uncertified seeds. Government can consider the same.
- B. **Tissue Culture:** Tissue culture is a technology for rapid propagation of plants using tissue of selected mother plants with desirable traits wherein large number 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; biochemical and reproductive mechanisms in plants and also of large scale production of artificial seeds through somatic embryogenesis.

Gujarat Biotechnology Research Centre established Plant Tissue Culture laboratory for the development of tissue culture protocol of agricultural, medicinal and commercially

important plants of the State. These include fruiting crops such as Banana, Date palm, pomegranates and guava. It is also pertinent to note that out of 93 commercial Tissue culture production units recognized by the Department of Biotechnology (DBT), and Govt. of India under the National Certification System for Tissue Culture Raised Plants (NCS-TCP), 18 are located in Gujarat. NCS-TCP is being implemented by Department of Biotechnology (DBT), Govt. of India since 2006, as per the Gazette of India Notification under the Seeds Act, 1966 and has been instrumental in building capabilities of the tissue culture companies for producing quality planting material and also enhancing their market reach through a certification process.

- C. **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, for example, emerged as a new source of genetic diversity for crop improvement and has led to the development of drought tolerant crop varieties. In 2021-22, Gujarat Government unveiled a new Biotechnology Policy (2022-2027) offering up to 25% financial support on the capital investments in the sector. The policy looks to create about 1.2 lakh new employment opportunities, while attracting estimated investment of over ₹20,000 crore in the sector. The new policy will also encourage projects such as pre-clinical testing, genome sequencing in private sector, plug & play facilities, private sector BSL-3 lab-vaccine development and manufacturing, testing and certification laboratories. 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) with target to promote the career goals of students in agri-biotechnology and strengthen the linkages of academic with industry.
- D. **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. It is an interface to create a national network of physical mandis, which can be accessed online. In Gujarat, 9400 traders, 6800 commission agents, 110 FPOs and 8,68,888 farmers are linked through e-NAM. Members of an FPO located in Modasa, Gujarat (FPO: Girimala Farmers Producers Company Ltd.) have greatly benefitted from e-NAM as they have realized higher prices through it, than they would through local markets and also benefitted from shorter payment cycle, post the sale of their produce.

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

Assessment for the year 2023-24 has been pegged at ₹4757.92 Lakh.

Sr. No.	Activity	Units (Nos.)	Unit Cost (₹Lakh)	Phy. Unit	TFO (₹Lakh)	Bank Loan (₹Lakh)
1.	Tissue Culture Labs	Nos.	75.00	2	150.00	120.00
2.	Seed production plots	Nos.	17.00	139	2363.00	1890.40
3.	Bio fertilizer plant	Nos.	32.00	94	3008.00	2406.40
4.	Vermi-compost Unit	Nos.	0.20	2132	426.40	341.12
	Total		-	-	5947.40	4757.92

2.2.3.4 Critical interventions required for creating a definitive impact

It is vital to utilize the existing network of academia and universities/KVKs, to disseminate awareness and knowledge among farmers towards use of good quality and certified seeds, bio-fertilizers, high yield variety crops etc. Basic knowledge of biotechnology such as vermi-

compost making and of bio-fertilizers should be shared with farmers' collective groups and efforts be undertaken to create "model demonstration agro-biotech farms".

Biotechnology Industry of Gujarat needs the right policy and financial nudge for it to thrive. Thus, it requires a clear policy (which has been unveiled recently) and a simplified process for uptake of loans. This will bolster the investments in Biotechnology in Gujarat.

2.2.3.5 Suggested Action Points

We can embed certain existing key schemes with special clauses on promotion of agri-biotechnology. Existing schemes such as those on development of watershed/wadis, promotion of organic farming, catalyzing of some innovative farm projects on niche technologies (FSPF) etc. can be chosen and focus can be given on agri-biotech promotion. Similarly, new schemes can also be designed to promote agri-biotechnology through involvement of grass-root level institutions and efforts of Universities.

End-to-end monitoring of such schemes and projects is extremely important to arrive at any mid-course corrections on any parameters and to continually assess the benefits of agri-biotech related infrastructure on the income & productivity of beneficiaries, through a structured cost-benefit analysis.

Encouraging the interface of Industry with grass-roots level institutions is also crucial, and this can help in fostering of the agri-innovation centres.

All FPOs should be linked with e-NAM and they need to be encouraged to actively use the same, in inter-state APMC trading as well. High-speed infrastructure facilities and assaying labs also need to be setup within the market yard. Categorical information during trading through e-NAM, such as highest bid price of produce should be sent to all participating farmers to increase the effectiveness of the e-NAM and deepen its popularity.

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 organised manufacturing employment.

Gujarat is leading state with impressive agriculture performance contributing about 14.2% to the States GVA. The State has 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 centralised 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 03 Agriculture Export Zones for mangoes, vegetables, value-added onions and sesame seeds.
- 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 this District is broad-based covering almost the entire spectrum of "food", as outlined below:

- a) 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.
- b) Value added Processing based on local resources: Garlic, Ginger etc.
- c)]Tomato, Potato Flakes & Powder, Specialty grades- Guar Gum powder, Refined Sugar, Egg Powder, Baker's Yeast, Fish oil extraction.
- d) Natural Resources based Opportunities: Natural food colors, Medicinal Herbs extraction, Neem / Tobacco Oil base Bio-Pesticides, Food Processing Enzymes
- e) Innovative Opportunities: Organic Milk & Milk Products, Ice Cream Balls, Castor Derivatives base Perfumery raw materials, Banana Fibre extraction.

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. 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 MSME criteria detailed in Chapter 3.

2.3.1.4 Assessment for the year 2023-24 has been made at ₹ 2543.40 lakh.

(₹Lakh)

Sr. No.	Activity	Unit Cost	Phy. Units (Nos.)	TFO	Bank Loan
1	Food Grain Grading, Processing, Mkting Units	56.00	8	448.00	358.40
2	Food Grain – Atta Making units	11.25	66	742.50	594.00
3	Modern Haldi, Masala etc. - Spice processing	5.00	64	320.00	256.00
4	Working Capital for new & existing units	20.00	89	1780.00	1335.00
Total				3290.50	2543.40

a) Critical interventions required for creating a definitive impact

Central and Eastern Gujarat: These regions may also have potential to capitalise on the production of Tobacco, Banana, Potato, Rice, Maize, Wheat, Pulses, etc., where appropriate Agro and Food processing clusters may be promoted.

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:

- Loans up to ₹5 crore to farmers co-operative societies for disposing of the produce.
- 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.
- Loans for setting up of Agriclincs and Agribusiness Centres. (ACBC)
- Loans for Food and Agro-processing up to an aggregate sanctioned limit of ₹100 crore per borrower from the banking system.
- 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.
- 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.
- Loans sanctioned by banks to MFIs for on-lending to agriculture sector.
- Loans sanctioned by banks to registered NBFCs (other than MFIs) for on-lending as per RBI conditions
- Loans sanctioned by banks to registered NBFCs (other than MFIs).
- 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 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. PACS may also avail credit from NABARD subsidiary under the product "PACS as Multi-Service Centre"

- **Aggregation of Agri produce**

In this district, nearly 77.46% farm holdings which are less than 2 ha covering about 41.29% of the cultivated area. There is also a preponderance of marginal farmers with 53.10% holding with only 16.40% of land area. Aggregation of produce by these farmers will put bargaining power in their hands 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 shall be classified as priority sector loans. (Source: DSO Mahisagar)

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

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 equipments, 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 Availability of Infrastructure, critical gaps & interventions required

- PACS are regularly guided and supported by Panchmahal DCCB for undertaking various income generating activities. There are 82 PACS/LAMPS functioning in the district.
- PACS to function as 'One Stop Shop' for meeting all the credit requirements of farming community, thereby also enhancing their own business operations and financial viability.
- NABARD's Special Refinance Facility for Transformation of PACS as MSC
- PACS will be guided and motivated to take credit support from Government of India under Agriculture Infrastructure Fund

2.3.2.3 Assessment of Credit Potential for 2023-24 – (for Loans to Coop Societies of Farmers, Loans to PACS/FSS/LAMPS)

Sr. No.	Activity	Unit Cost (₹Lakh)	Unit (Nos.)	TFO (₹Lakh)	Bank Loan (₹Lakh)
1.	Loans to PACS/FSS/LAMPS	19.00	61	1159.00	927.20
2.	ACABC Finance	10.00	18	180.00	144.00
	Total		-	1339.00	1071.20

2.3.2.4 Critical interventions required for creating a definitive impact

- PACS Development Cell under the NABARD support to be set up for handholding the PACS for undertaking new business activities under changing economic conditions
- Micro Finance Institutions may be encouraged to provide the loans at competitive rates for small borrowers to enlarge their outreach and business port-folio.

2.3.2.5 Suggested Action Points

- There are only 8 candidates trained under ACABC and therefore, ACABC Scheme be given larger publicity for encouraging educated youngsters with agriculture background to come forward for their contribution to the farming community.
- Producer Organizations may be encouraged to take up food & agro processing activities for value addition and ultimately for better realization of value of their produce. Banks can also have their own strategy for provision of the required support to farmers in a holistic manner. NABARD has initiated steps in this direction in providing necessary financial support for promotion and formation of few FPOs in the district.

2.3.2.6 Credit Potential for Others

- **Loans to Individuals and SHGs/JLGs:** Generally, financial institutions take security for giving loans. In this process, a large section of society gets deprived and loans at subsidised rate of interest from the Banks for undertaking economic activities. NABARD took lead in this matter and pioneered 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. Group mode of loaning paved the way for giving finance to poorest of poor and improve their social and economic condition. Moreover, it has proved to be a 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 paperwork 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 lenders. 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 activity-wise and block-wise details are given in Annexure-I.

- 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 ₹1,00,000/- and for non-rural areas it does not exceed ₹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 lenders.
- 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 ₹10,000/- through such accounts. Age limit of 18-60 years has been revised to 18-65 years and there will not be any conditions attached for overdraft upto ₹2000/-. 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. In Gujarat, Banks have opened 1,49,15,034 number of PMJDY accounts as per SLBC data for quarter ended March 2020 and in the Mahisagar district 2.68 lakh number of PMJDY accounts have been opened till quarter ended March 2020.

2.3.2.7 Availability of Infrastructure, Critical gaps & interventions required, action points/issues to be addressed

- Banks have already started advancing loans under JLG financing.
- Few Private sector banks are doing financing under JLG mode through MFIs.
- Infrastructure and network of GLPC is available for assisting SHGs / sakhi mandals.
- Necessary manpower deployment may be done with GLPC to fully concentrate on the work related to formation and credit linking of SHG groups.

2.3.2.8 Assessment of Credit Potential for 2023-24

(₹Lakh)

Sr. No	Activity	Unit Cost	Phy. Units	TFO	Bank Loan
1	Fresh loans to SHGs	1	480	480.00	384.00
2	Repeat loans to SHGs	1	525	525.00	420.00
3	Loans to JLGs	0.4	402	160.80	128.64
4	Loans to distressed	1	178	178.00	142.40
5	Loans under PMJDY	0.5	360	180.00	144.00
6	WC – PMJDY	0.1	240	24.00	19.20
6	Govt. sponsored SC/ST	0.5	147	73.50	58.80
7	Misc.PMEGP,VBY,GBCDC	0.5	300	150.00	120.00
	Total			1771.30	1417.04

2.3.2.9 Critical interventions required for creating a definitive impact

a. State Government:

- DRDA can play proactive role in identifying the distressed persons who want to repay to non-institutional lenders and in extending loans to State sponsored organizations for SC/ST population of the district.

b. Banks:

- Banks may provide loans / CC limits to matured SHGs
- Banks may consider option of hiring services of MFIs for undertaking financing under SHG and JLG mode so that timely follow-up with the borrower can be made. This will obviate the issue of staff shortage and address the issue of timely recovery of loans.
- Branch network of BGGB, PDCB and all other commercial banks can be fruitfully utilized for lending under Joint Liability Groups and PMJDY.

Special Refinance Scheme for Transformation of PACS as MSC

Primary Agriculture Cooperative Societies (PACS) are grass root level Cooperative institutions primarily involved in meeting the credit requirements of the farmer members. With a view to rejuvenating the PACS, many initiatives have been undertaken by NABARD and one such initiative has been taken up for supporting PACS as MSC from the year 2011 onwards through direct credit as well as through refinance to CCBs/StCBs to make them a self-sustainable entity. Positive impact and the benefits derived by the members of PACS as well as limitations in implementing the program were assessed by NABARD and accordingly the operational methodology, coverage of investments and terms of refinance have since been revised

The drivers for transformation of PACS as MSC are recent reforms by GoI in APMC Act, Essential Commodities Act, Contract Farming Act and COVID 19 led reverse migration necessitating to create investment opportunities for rural youth in agriculture.

Further, with the proposed Agriculture Infrastructure Fund (AIF) scheme under Aatmanirbhar Bharat initiative of GoI, for establishing decentralized farm-gate Post Harvest Management infrastructure wherein PACS have been included as one of the eligible institutions for interest subvention, it is envisaged that PACS can now play a major role in physical and financial supply chain of commodities by working as spokes to the Gramin Agriculture Markets (GrAMs). With investments in post-harvest infrastructure, it is hoped that farmers would be able to reduce post-harvest losses and increase their value realization for the produce.

Objective

Transformation of 35,000 PACS into MSC in a phased manner spanning over three years with an objective of PACS acting as enabling institutions for meeting the national goal of doubling of farmers' income. The target proposed for current year is transformation of 5,000 PACS and for subsequent years it shall be 15,000 PACS during FY22 and 15,000 PACS during FY23.

₹5000 crore has been earmarked under this special dispensation for the year 2020-21.

Eligible PACS

All PACS which have powers to borrow for creation of infrastructure in the byelaws and have sufficient borrowing power are eligible. The minimum margin money requirement from PACS is 10% under this special refinance facility. However, considering the current financial status of PACS and to enable them to kick-start establishing agri infrastructure, wherever necessary, StCB/DCCB may consider relaxing margin money to 5%. NABARD may consider providing grant not exceeding 10% of the loan component not exceeding ₹2 lakh per PACS towards preparation of DPR, exposure visits, capacity building etc.

Eligible financial institutions

All State Cooperative Banks and DCCBs complying with refinance policy of NABARD are eligible for special refinance scheme.

Eligible Purposes

Thrust areas for refinance include custom hiring centres, collective purchase of inputs,

procurement of farm produce, scientific warehouses, pack houses, assaying units, sorting & grading units, cold chains, logistics facilities, primary processing centres, supply chain services including e-marketing platforms, marketing facilities etc. and will be eligible for refinance.

Refinance assistance

Refinance assistance is provided to the banks under pre-sanction procedure wherein banks are required to submit the projects for approval of NABARD. Before sanction of the same, NABARD appraises these projects to determine their technical feasibility, financial viability and bankability.

Interest rate on refinance will be 3%. However, the ultimate interest rate to be charged from PACS should not be more than 1% over & above the interest rate charged by NABARD and can be shared by StCB & CCB as per the mutually agreed terms. Repayment period of refinance will be up to 7 years.

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:-

Micro	The investment in plant and machinery or equipment does not exceed ₹1 Crore and turnover does not exceed ₹5 crores.
Small	The investment in plant and machinery or equipment does not exceed ₹10 crore and turnover does not exceed ₹50 crore.
Medium	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 Udyog 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 standardised 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: -

(₹lakhs rupees)

Details	31 March 2020	31 March 2021	31 March 2022
Gujarat	1,29,03,176	1,35,15,964	1,82,38,911
Mahisagar	9990	10750	14479

Source: SLBC, Gujarat

NPA trend in MSME sector in Gujarat

Details	31 March 2020	31 March 2021	31 March 2022
Gujarat	6.84 %	5.83 %	5.11 %
Mahisagar	8.95 %	8.17 %	8.71 %

•

3.3.1 Assessment of Credit Potential for financial year 2023-24

Assessment for the year 2023-24 has been made at ₹ 5472 lakh. The GLC flow under MSME was ₹7155 Lakh, ₹7277 Lakh and ₹7397 Lakh during 2019-20, 2020-21 and 2021-22 respectively.

Sr. No.	Activity	Units (No)	Unit Cost (₹Lakh)	Phy. Units	TFO (₹Lakh)	Bank Loan (₹Lakh)
(A) Term Loan						
1.	Micro enterprises	Nos.	25.00	123	3075.00	2460.00
2.	Small enterprises	Nos.	250.00	2	500.00	400.00
3.	Medium enterprises	Nos.	750.00	3	2250.00	1800.00
	Total term Loans				5825.00	4660.00
(B) Working Capital						
1.	Micro enterprises	Nos.	5.00	123	615.00	492.00
2.	Small enterprises	Nos.	50.00	2	100.00	80.00
3.	Medium enterprises	Nos.	100.00	3	300.00	240.00
	Total Working Capital				1015.00	812.00
	Total MSME					5472.00

3.4 Critical interventions required for creating a definitive impact

- While the story of MSME sector has been relatively brighter in comparison, it is not without dark chapters and to reach the bright light at the end of tunnel, focussed and better conceptualised interventions are needed that can improve access to formal capital, strengthen global competitiveness, bridge gaps in infrastructure, decrease compliance burden, provide speedier and reliable dispute resolution mechanism, enhance skill set and training quality of manpower and use modern technology to the sector's benefit.
- Publicity for all promotional schemes of Central / State Governments about facilities, relief, subsidy and initiatives offered. DIC may promote the schemes for attracting potential entrepreneurs.

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.

3.6 Other related matters

To get it right, policy making should ensure continuous and concurrent consultation with stakeholders and put extra focus on poor regions and sections of population to ensure inclusive and balanced development. It needs to seep into the psyche that the progress of India into a high income country and industrial powerhouse will depend a lot on getting the MSME dream right.

Chapter 4

Credit Potential for Export Credit, Education and Housing

4.1. Potential for Export Credit

4.1.1 Introduction

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 a 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". Domestic banks may sanction export credit for incremental export over corresponding date of the preceding year upto 2 % of ANBC and CEOBE subject to a sanctioned limit of ₹40 crore per borrower.

This is one of the districts where agriculture and animal husbandry are the main occupations. In the agriculture sector, there is a shift of pattern of cultivation, from food grain crops to horticulture and vegetable crops, etc. However, due to the absence of proper storage infrastructure and food processing industries, part of the produce is locally consumed and remaining is sold in nearby markets like Vadodara and Ahmedabad. Setting up of Industrial area at Virpur and Balasinor blocks is in progress.

4.1.2. Assessment of Credit Potential for 2023-24

There is a potential for export of Maize, Onion, Ginger, Milk and Milk related products from the district. Banks in the district are not having any portfolio for export finance with them directly, as normally these needs are catered to by Metro/ Regional Office/ Zonal office level branches. Therefore, the modest target has been fixed for this activity as under:

The physical and financial projections for the year 2023-24 is given as under. The block-wise, sector-wise potentials for 2023-24 are given in Annexure I.

Sr. No.	Activity	Unit	Unit Cost (₹Lakh)	Phy. Unit	TFO (₹Lakh)	Bank Loan (₹Lakh)
1.	Pre-shipment Finance Packing credit	Nos.	60.00	02	120.00	96.00
2.	Post-shipment	Nos.	35.00	02	70.00	56.00
	Total	-		-	190.00	152.00

4.1.3. Availability of Infrastructure, Critical gaps & Interventions required

There is no specific export zone in the district. There will be potential for export of agri produce, however, due to lack of processing facilities the same is unrealizable. There exists good infrastructure of roads, railway and other transportation facilities. The efforts are on for setting up GIDC at Virpur block. However, there is a need to develop infrastructure facilities such as storage/cold storage and certification set up etc. Efforts are going on for formation and promotion of FPOs and strengthening Agriculture Infrastructure of rural areas for developing essential supply chains of Agri-produce under specially designed assistance/refinance schemes of NABARD and Centrally Sponsored Schemes of Government of India. District Export promotion committee is set up in the district to focus export promotion and review trade related issue. The committee will certainly give a boost for export sector in the district.

4.1.4. Suggested Action Points

State Government:

- Creating godowns and cold storages

- Quality control matching international level to be created grading/ sorting/ packaging.
- FPOs/Micro, Small and Medium Exporters should be properly trained
- State Government and other stakeholders may develop the data base on export viz-a-viz the share of agri-commodity export in total export.
- Exporters may be encouraged to avail the insurance facilities extended by ECGC.

Banks and others:

- Banks should put in place a control and reporting mechanism to ensure that the applications for export credit are disposed of within the prescribed time frame.
- Exporters may be encouraged to avail the export credit insurance facilities from ECGC.
- Intense dialogue/discussions may be initiated with various bodies connected with the export sector on a regular basis to bring in policy changes from time to time.

4.2 Credit Potential for Education

4.2.1. Introduction

India has the world's largest population of about 500 million in the age bracket of 5-24 years, which provides a great opportunity for the education sector. In light of this fact, it becomes important that we as a nation, focus on the 3 Es of education, employment and employability lest the demographic dividend becomes a demographic burden. While the 3 Es are inextricably linked, the 'E' of Education is the foundational stone for the other two and hence assumes prime importance.

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 educational purposes, including vocational courses, not exceeding ₹20 lakh will be considered as eligible for priority sector classification.

4.2.2. Availability of Infrastructure, Critical gaps & Interventions required

There are 1566 Govt. and private schools, 03 ITIs, and 30 other colleges for pursuing graduation. One engineering college has also been recently opened in the district. (Source: DSO, DEO, Mahisagar)

- Many students from the district are studying in nearby big cities like Vadodara, Anand and Ahmedabad.
- The key challenges like providing equitable access, mixed higher education outcomes in terms of quality, relevance and excellence have to be addressed.
- Reduce "Distance to Institute" by opening new institutes in rural/semi-urban areas.
- Use technology to enable low cost models of education, delivered through online, foster digital content, invest in ICT, quality online education access with a quick turnaround.
- The target, 'Primary School for all villages', should be achieved during the next five years.
- Steps need to be taken at policy-making level to popularize education loans.

4.2.3. Assessment of Potential for 2023-24

The projections under Education Loan for the year 2023-24 is estimated at ₹1692.00 lakh. The ground level disbursement for last 04 financial years is ₹552.00 lakh, ₹558.00 lakh, ₹377.00 lakh and ₹115.00 Lakh, respectively.

(₹Lakh)

Sr. No.	Activity	Unit Cost	Phy. Unit (Nos.)	TFO	Bank Loan
1	Higher Education	10.00	71	710.00	639.00
2	Education – Tech. and others	6.00	195	1170.00	1053.00
	Total	-	-	1880.00	1692.00

4.2.4 Critical Intervention required for creating a definitive impact

- The key challenges like providing equitable access, mixed higher education outcomes in terms of quality, relevance and excellence have to be addressed.
- Reduce “Distance to Institute” by opening new institutes in rural/semi-urban areas.
- Use of technology to enable low cost models of education, delivered through online, foster digital content, invest in ICT, quality online education access with a quick turnaround.
- The target, ‘Primary School for all villages’, should be achieved during the next five years.
- Steps need to be taken at policy-making level to popularize education loans.

4.2.5. Suggested Action Points

State Government

- To bring transparency in grading and placement, records of the students may be made available to banks by various educational institutes, so that banks may consider extending finance to eligible students.
- Availability of Education loans may be suitably publicized in campuses of educational institutes.

Banks

- Banks may tie up with colleges in the district.
- Banks may consider sanctioning of education loans in a timely manner.
- The biggest need is for the dissemination of knowledge and information about the schemes of availing education loans. Banks may give wide publicity to the Education Loan scheme.

4.3 Credit Potential for Housing

4.3.1. Introduction

Housing Finance under Priority Sector lending cover the following:

- Loans to individuals up to ₹35 lakh in metro centers (population of 10 lakh and above) and loans up to ₹25 lakh in other centers for purchase/construction of a dwelling unit per family provided the overall cost of the dwelling unit in the metro center and at other centres should not exceed ₹45 lakh and ₹30 lakh respectively.
- Loans for repairs of houses up to ₹10 lakh in metro and up to ₹6 lakh in other centers.
- Bank loans to government agencies for construction of dwelling units / slum clearance and rehabilitation of slum dwellers, subject to a ceiling of ₹20 lakh per dwelling unit.
- Loans for housing projects for the construction of houses for economically weaker sections and LIG, the total cost of dwelling unit should not exceed ₹10 lakh

4.3.2 Assessment of Credit potential for 2023-24

This district has only one semi-urban town/city and the majority of its population (about 80%) lives in rural areas. However, with the increase in the size of family, the requirement of the separate house has become a basic necessity. Taking into account the Housing sector classified under priority sector segment and also the potential available for this sector, the physical and financial projections for the year 2023-24 are given as under:

(₹Lakh)

Sr.	Activity	Unit Cost	Phy. Unit (Nos.)	TFO	Bank Loan
1	Housing Loan	20.00	186	3720.00	2976.00
2	HL for renovation / enlargement	5.00	254	1270.00	1016.00
	Total	-	-	4990.00	3992.00

The projections under Housing Loan for the year 2023-24 is estimated at **₹3992.00 lakh**. Block-wise details are given in Annexure I. The ground level disbursement for last 04 financial years is ₹2439.00 lakhs ₹1207.00 lakhs, ₹1273.00 lakhs and ₹2603.00 lakh respectively.

4.3.3. Availability of Infrastructure, Critical gaps and Interventions required.

- Gujarat Housing Board (GHB) has started one project where LIG, MIG – I, MIG – II and HIG flats are under construction. 24 banks have entered into MoU with GHB. This will further boost this sector.
- Prolonged regulatory process hampers timely launch and completion of the project.
- New building construction is coming up in Lunawada, Virpur and Balasinor blocks. There is a scope for financing fresh Housing loan for the purchase of flat/ construction of house and renovation of flats.

4.3.4. Suggested Action Points:

a. State Government:

- Govt. may reserve land exclusively for housing projects.
- Single window and time-bound regulatory process to speed up the pace of activity in the sector.
- State Government may think of offering incentives to private developers.

b. Banks:

- Banks may tie up with reputed builders for easy finance access to the potential buyers in their schemes.
- Softening of home loan rates will give a boost to this sector.

Chapter 5

5.1 Credit Potential for Infrastructure – Public Investment

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.

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 sectors. The cumulative loan assistance sanctioned under the fund to the Government of Gujarat since inception of RIDF stands at ₹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	Sector	Projects Sanctioned since inception		Disbursement
		Number	Amount	Amount
RIDF	Agriculture Related	30056	25009	21865
	Social Sector	21473	7594	5780
	Rural Connectivity	11643	2622	2232
	Total	63172	35225	29877
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
Total		63206	42771	34830

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:

Fund	Benefits	Units	Quantity
RIDF	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
MIF	Micro-irrigation facility	Lakh Ha	2.07
LTIF	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
WIF	Warehousing capacity	Lakh MT	6.5

5.1.2 Projects sanctioned under RIDF in the District

Nearly 7 years back, construction of distributaries from Panam canal system, rural road projects, rural drinking water supply project, construction of check dams project and underground drainage system projects were implemented in the district. In recent times construction of Primary Health sub Centers and Aanganwadi Centers were undertaken using RIDF by the State Government.

Lift Irrigation project from Kadana Dam was sanctioned with RIDF loan of ₹982.47 cr is another prestigious project which has been undertaken under RIDF in the district. The project involves lifting 400 cusec water for 22 hours each day from the upstream of Kadana Dam and provide it through pipeline to fill five major reservoirs viz Patadunguri, Umaria, Wankleshwar, Machanhannala and Adalwada. The lifted water will also feed around 59 enroute village ponds. The water is being provided for Irrigation purposes and from Patandungri Reservoir, it is now provided for drinking water too. The project is now complete and the district has already started reaping its benefits. The other new ongoing projects that have been recently sanctioned under RIDF in the district are construction of 117 classrooms with a total RIDF loan of ₹669.00 lakhs.

Sr. No	Sector	No. of projects sanctioned	Loan Sanctioned ₹lakh
*Multi District Projects			
1	Construction of 117 classrooms	1	669.00
2.	Irrigation Projects	3	11554.49
		4	12223.49

5.1.3 Impact of the above projects

Due to various projects, e.g. road construction, construction of check dams, irrigation projects like Panam sub canal, lift irrigation system, underground sewerage system, construction of Public Health centers have created most of the basic infrastructure required for better living of rural masses and it is having a positive impact on the life of the rural people of the district.

5.1.4 Infrastructure supported under WIF in Gujarat

Warehouse Infrastructure Fund was introduced to support projects for construction of scientific warehouse infrastructure with a view to store the excessive food grain production, meet the demand of increased procurement under food security act 2013 and enhance shelf life of the perishable goods. Availability and easy accessibility of storage infrastructure enables the farmers to avoid distress sale and sell the produce at higher market rate as per convenience.

In Gujarat, NABARD has partnered with Government of Gujarat for creation of storage capacity of 8.35 Lakh MT with a cumulative sanction of ₹ 51542 Lakh under WIF. This includes construction of small warehouses (100 -500 MT) by PACS at village levels and mid-sized & large warehouses (1000 MT – 5000 MT) at block levels by Gujarat State Civil Supplies Corporation and Gujarat State Seed Corporation . As on 31 March 2022, capacity of 6.51 lakh MT has been created with utilization of ₹38277 Lakh out of the sanctioned loan of ₹46956 lakh. Additionally, a modern cold storage unit with a capacity of 5000 MT in Prantij, Sabarkantha has been constructed by a private entity with a support of ₹1900 Lakh loan under WIF.

5.1.5 Critical Intervention required for creating a definitive impact:

- **Irrigation:** There is a need for lift irrigation and drip irrigation projects. Projects for completing the works of distribution system/ branch canals, canal lining / modernization, filling up reservoirs through pipeline/ water conveyance schemes, for reaching the water to tail-end areas of projects which are presently not achieving full efficiency, Micro irrigation under existing irrigation projects are the priority areas.
- **Water recharge:** Irrigation department with the help of Agriculture Department may organise village level camps especially in Khanpur, Balasinor and Virpur Blocks to demonstrate the low cost water recharge model which fruitfully utilizes rain water flowing in to a small pit.
- **Watershed approach:** Due to adopting of watershed approach Ground water level has increased and villagers can take multi crops in a year. Replication of this model in Mahisagar especially in Santrampur block by the district administration is absolutely necessary.
- **Agriculture, Land Development & Soil Conservation:** Rainfall in the district is scanty and most of the rain falling on the surface tends to flow away rapidly, leaving very little for the recharge of ground water. This highlights the need to implement measure to ensure that the rain falling over a region is tapped fully for recharging it into the groundwater aquifers or storing it for direct use. There is potential to invest in 100 water harvesting structures (village tanks) and 200 Check dams' structures for entire district through State Government intervention.
- **Soil Testing Centres:** Government of Gujarat has taken up the programme for issue of soil health cards for all farmers. This requires a lot of infrastructure in the form of establishing soil testing centres. A minimum of one soil testing centre for each taluka will be required. Other purposes such as natural resources conservation through land levelling, establishment of research station on reclamation of problematic soils, also needs Government support.
- **Horticulture:** Establishment of horticultural nurseries and ventilated storage facilities for garlic/ onion, tissue culture labs for Banana/ Potato, facilities for production of organic agri inputs.
- **Research stations:** Establishment of research station for off season vegetable and floriculture cultivation in poly-house, establishment of AEZ for floriculture.
- **Training infrastructure:** Strengthening of training infrastructure facilities at Farmers Training Centre (district level) and Farm Information and Advisory Centres (FIACs - at Block Level) also are required to be taken up by the State Government in potential districts. Establishment of independent KVK for the newly formed Mahisagar district is required on priority basis.

- **Agri processing / Warehousing / Marketing:** District has very good production of Paddy and Maize. There are 63 godowns of PACS which may be upgraded and equipped for accreditation with necessary infrastructure for standardization, grading, sorting, processing and storage. PACS can raise resources against NWR and start trading business.
- **Modernization of APMCs** need to be taken up by Government on a priority basis which will pave way for creation of scientific storage, market and other facilities for farmers.
- **Rural Haats:** Establishment of Rural Haats initially at Block level will give opportunity to farmers and members of Self-Help groups to market their product / products.
- **Animal Husbandry /Dairy Development:** There is lot of scope for animal financing. However, poor quality of animals are available. Therefore, there is an urgent need to set up one Animal Breeding farm in this region. Other infrastructure like construction of animal hostels, veterinary dispensaries and Artificial Insemination centres, bulk milk coolers, Hi-tech breeding farms, cold chain facilities etc. need to be set up.
- **Solar/ Wind Energy:** The forest and hilly terrains of Santrampur and Khanpur blocks may be checked for their suitability for installation of Solar Panels and Wind Mills on large scale. As many tourists are visiting the district, installation of Wind Mills and Solar energy generating units will be an added attraction for such visitors.

5.1.6 Suggested Action points

- In addition to the above, other infrastructure requirements such as Rural Roads, Rural Drinking Water Supply Schemes, Rural Tourism, Agri resource centers, Health and sanitation, Rurban projects, etc., have been assessed as critical gap, which can be met out of State Government budgetary support.
- Many of the infrastructure activities identified above need to be taken up on a priority basis by the State Government which can be funded by NABARD under RIDF. Further, some of the projects can be taken up by State owned corporations which can be financed by NABARD under NABARD Infrastructure Development Assistance (NIDA) outside the borrowing powers of the State Government.

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 the last two decades, Government of India has come up with numerous schemes and programs to address the challenges of creating a 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 building social infrastructure, namely, schools, health care facilities, drinking water facilities and sanitation facilities in Tier II to Tier VI centres 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'.

5.2.2 Social Infrastructure in the District available, planned and gaps

Social Infrastructure	Gujarat State	District
Primary Schools	45315(73 per 1 lakh population)	1318
High School	12234 (19 per 1 lakh population)	248
Hospitals / Dispensary	204 (3 per 1 lakh population)	43
Number of Community Health Centres	362	8
Number of Primary Health Centres	1475	35
Number of Sub-Centres	9231	0
Number of Urban Health Centres	108	2
Other Health Institutions	118	0
Drinking Water (Households covered under Tap Water)	8408796 (69% household)	51127 (27%)

(Source: District & State Statistical Book & Socio-Economic Review 2019 & Gujarat Dev.prog 2020-21)

5.2.3 Assessment of potential for financial year 2023-24: The assessment of credit potential has been worked ₹1134.64 lakh for the 2023-24.

(₹Lakh)

Sr. No.	Activity	Unit Cost	Phy. Units (Nos)	TFO	Bank Loan
1	Secondary school	70.00	1	70.00	56.00
2	Primary Schools	25.00	4	100.00	80.00
3	Hospital Taluka Level	125.00	1	125.00	100.00
4	Drinking water RO plant	5.00	180	900.00	720.00
5	Toilets /sanitation	0.22	1015	223.30	178.64
	Total		-	1418.30	1134.64

5.2.4 Critical Intervention required for creating a definitive impact

- The set-up of full-fledged hospitals is totally absent at the Taluka level. The people are required to reach either district headquarters or the nearby city of Vadodara for major ailments and hospitalization.
- Provision of safe drinking water and sanitation facilities is the need of the hour in remote villages.

5.2.5 Suggested Action Points

- State Govt. may consider the setting of full-fledged Medical Centres / Hospitals at Taluka level. For this few NGOs/ Trusts may take lead. Bankers may arrange for providing finance for the same.
- Renovation of schools is one of the most important items, which needs to be attended on a priority basis.
- Banks to disseminate information to their customers and offer bank loan under rural sanitation projects, drinking water plants etc. by fulfilling the national objective of 'Swachh Bharat Abhiyan'.

5.3 Credit Potential for Renewable Energy

5.3.1. Introduction

Renewable energy is generally defined as energy that comes from resources which are naturally replenished on a human timescale such as sunlight, wind, rain, tides, waves and geothermal heat. Renewable energy replaces conventional fuels in four distinct areas: electricity generation, air and water heating/cooling, motor fuels, and rural (off-grid) energy services. The pressure of increasing population on the one hand and limitations in providing energy in the required quantity from conventional fossil sources, on the other hand, has become one of the most burning issues for the country. Renewable sources of energy are going to play an increasingly important role in the future.

Gujarat is the 2nd largest producer of wind power in India. Gujarat has one of Asia's largest solar park with a capacity of over 750 MW in Charanka. The total bio-mass based potential for Gujarat is about 1,800 MW from crop residue and about 140 MW from forest residue

With the Government of India committing itself to installing 175 GW of renewable energy capacity by 2022, the Gujarat government identified 1,00,000 hectares of wasteland near Khavda, 72 km north of Bhuj, close to the international border with Pakistan in Kutch, for an energy park. Gujarat is also the 2nd largest producer of wind power in India. 600 MW capacity of "Solar Park" is located at village Charanka, District Patan in Gujarat spread across 5,385 acres. In a boost to Gujarat's efforts to promote renewable energy, Gujarat demonstrated the potential to generate 2,000 MW power through biomass. If the State puts its wasteland to use power generation through biomass, generation can go up to 5,000 MW. Furthermore, the State of Gujarat has launched a progressive and future-looking electric vehicles (EV) policy today. One out of every three passenger cars manufactured in India come from Gujarat. The State's announcement today will provide a fillip to the electric mobility ecosystem in the country.

Revised Priority Sector guidelines issued by RBI vide their Circular dated 04th September 2020 & revised on 11th June 2021

Bank loans up to a limit of ₹30 crore to borrowers for purposes like solar based power generators, biomass-based power generators, wind mills, micro-hydel plants and for non-conventional energy based public utilities, viz., street lighting systems and remote village electrification etc., will be eligible for Priority Sector classification. For individual households, the loan limit will be ₹10 lakh per borrower, will come under Priority Sector.

5.3.2. Infrastructure and linkage support available, planned and gaps

In this district, a Solar Photovoltaic Power Generating System is utilized for providing continuous uninterrupted power and operation of few Milk Collection Centres. The MNES had installed the system at Agenda, Naroda, Vadgam, Palla and Untadi. The similar effort needs to be replicated. It has a sizable potential for participating in this sector, particularly solar energy. Major areas of interest in the district can be biomass power, water heating system, and solar pumping system. Excess solar power generated through roof top solar panels can be sold to the main electricity grid and it can become a good source of income to farmers.

5.3.3. Assessment of Credit Potential for 2023-24 (₹Lakh)

Sr. No.	Activity	Units	Unit cost	Phy. Units	TFO	Bank Loan
1.	GAIC (3 cu.mt) Bio Gas	Nos.	0.28	416	116.48	69.89
2.	KVIC (3 cu.mt) Bio Gas	Nos.	0.25	417	104.25	62.55
3.	Solar water heater systems (100 lpd)	Nos.	0.40	360	144.00	115.20
4.	3 HP Solar Pumping system with AC motor	Nos.	2.91	60	174.60	104.76
5.	Resi. Rooftop solar system (2kW)	Nos.	0.76	11	8.36	5.02
	Total				547.69	357.41

Thus the use of non-conventional sources of energy will help in generation of income through savings to the majority of the population residing in rural areas. Use of these resources will also help in maintaining the proper ecological balance of natural resources and the generation of additional income for farmers.

5.3.4. Availability of Infrastructure, Critical gaps and Interventions required

- Development of Solar cities across the State has been a priority of the State Govt. GEDA is already taking major initiatives for the development of solar water heating and lighting, wind mills and bio gas, etc. areas.
- GOI has launched a programme for promoting 30000 solar pumping systems per year in the country for the purpose of irrigation. The pumps have to be purchased from empanelled manufacturers of MNRE. The pattern of assistance in the form of capital subsidies at various rates is mentioned in the guidelines. Banks/Agriculture Department should create awareness about such schemes among farmers.
- Gujarat Government has launched Suryashakti Kisan Yojana (SKY) under which farmers can use solar energy for irrigation purpose and sell the surplus power via the grid. For the installation of solar panels, farmers will have to pay only 5% of the total cost. Central & State Govt. will provide a subsidy of 60% while for the rest 35%, the State Govt. will provide low-cost loans to the farmers for 7 years.
- The Jawaharlal Nehru National Solar Mission Subsidy scheme of GOI is encouraging and many farmers have evinced their interest in the scheme.
- As per GOI, DFS instructions to Public Sector banks the cost of rooftop solar PV plant/system to be included in a home loan.

5.3.5. Suggested Action Points

a. State Government:

- A composite scheme of small cattle shed with five milch animals and a biogas plant could be prepared by DRDA for financing to SHGs. The Tribal Sub-plan, Gujarat Scheduled Cast Dev. Corporation, Gujarat Minority Financial Development Corporation and Gujarat Backward Class Development Corporation which are generally supporting dairy activity providing financial assistance to the eligible beneficiaries, could also support such a composite scheme.
- GAIC, GEDA, KVIC, and banks have to reorient their focus to educate the farmers about biogas and its benefits.
- Banks and GAIC / Gujarat Energy Development Agency (GEDA) should ideally coordinate for forming and financing bankable proposals.
- Localization of programmes and effective grassroots penetration by networking with NGO's and other local institutions.
- Information, promotion, training, and education packaged to take energy ideas to the vast and varied base of energy consumers. Reaching out through the school Energy Education Programme.

b. Banks and others:

- Banks to finance the products of solar energy which can cater to the basic needs of cooking, heating and lighting especially for the weaker section.
- Banks may design suitable credit products and create awareness about subsidy schemes. GEDA in association with milk cooperatives may plan for the popularization of Community Based Biogas plants.

5.3.6 Other Related Matters

By adopting the use of biogas and solar pumping systems, the precious and hard-earned money of farmers can be saved. The expenditure on diesel and electricity can be saved and the renewable energy can be put to use instead of the fossil fuel. This will help in reduction of greenhouse gases and address global warming issues. The farmers can even be motivated to work towards earning of carbon credits and help in doubling of income in phased manner.

Chapter 6. Informal Credit Delivery System

6.1 Introduction

Micro finance occupies a pivotal position in the Socio- economic development of India and stands as one of the most promising and cost-effective tools in the fight against global poverty. India ranks first in terms of percentage growth rate of borrowers and gross loan portfolio (GLP) as per the Microfinance Barometer 2017 which ranked the world's top 10 countries in Microfinance based on loan portfolio. 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 bringing 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 to the largest microfinance programme of the world, with an outreach spanning more than 14.19 crore rural households. As on 31 March 2022, there were 118.93 lakh SHGs with aggregate bank deposits of over ₹47240 crore, annual loan offtake of more than ₹99729 crore and loan outstanding over ₹151051 crore.

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-Micro Finance Booklet 2021-22)

6.2 Status of SHG-BLP in the district as on 31.03.2022

Sr.No.	Particulars	Status As on 31.03.2022
1	Potential for formation of SHGs	7600
2	No. of SHGs promoted	5018
3	No. of SHGs savings linked	4553
4	Total Amount of Savings	1456.4
5	Average Savings per Group-State average is ₹14000	19851
6	No. of SHGs credit linked	4544
7	Amount of loan outstanding as on 31 March 2022	₹416.95 lakh
8	No. of SHGs credit linked during 2021-22	818
9	Amount of credit sanctioned during 2021-22	₹829 lakh
10	Amount of credit disbursed during 2021-22	₹686.25 lakh
11	Credit disbursed per SHG during 2021-22	₹1.00 lakh
12	Of which no. of SHGs who availed fresh loans	269
13	No. of SHGs who availed repeat loans	549
14	Recovery position of SHG loans	95 %
15	NPAs under SHG finance (%)	7 %

(Source-Micro Finance Booklet 2021-2022).

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 scheme for interest subvention in Gujarat in coordination with

Ministry of Rural Development, GoI. In Mahisagar district apart from GLPC, the following NGOs were involved in the formation and handholding of SHGs through NABARD supported Wadi, Watershed and other programmes viz. 1. Ashadeep Foundation, Kadana Block 2. SARTHI, Santrampur Block

6.3. Outreach of SHG programme in this district is Based on the 2011 census, the rural households in the district are estimated at 170745 and the poor families as per Tendulkar Committee report are estimated at 66590(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, 5018 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 2022.

6.4. Issues related to micro finance Although 5018 SHGs have been promoted in the district, a mere 4544 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 on IGA
- Bankers' apathy towards credit linkage of SHGs
- Lack of awareness of services viz. micro insurance/pension and government 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 attend training programme for capacity building

6.5. Estimation of potential under SHG-BLP

Out of the total potential for promotion of 7600 SHGs in the district, as on 31 March 2022, 5018 SHGs have been promoted and savings linked in the district, thereby leaving a gap for promotion of further 2582 SHGs. The number of SHGs credit linked stood at 4544. The block wise details of potential available for promotion and savings linkage of SHGs in the district is furnished below in paragraph 6.7. Similarly, the potential for credit linkage of the SHGs is furnished in paragraph 6.8. SHG credit linkage target for the State for the year 2022-23 is 25000.

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 73948 small and marginal farmers/agricultural labourers in the district, there is potential for financing of 9243 JLGs (considering average 5 members per JLG) in the district. So far, a cumulative number of 796 JLGs have been financed with the loan outstanding of ₹670.33 lakh as on 31.03.2020 by different banks in the district. The banks are expected to extend financial support to a minimum of 180 JLGs during the current year, including 50 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.

6.7. Potential available for promotion and savings linkage of SHGs

Sr. No.	Name of the block	Total potential for promotion of SHGs	No. of SHGs savings linked on 31 March 2022	Balance potential as on 31 March 2022	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	Kadana	1540	885	655	355	300
2	Khanpur	1020	823	197	100	97
3	Santrampur	1770	1085	685	385	300
4	Lunawada	1220	915	305	185	120
5	Balasinore	1060	565	495	300	195
6	Virpur	990	271	719	419	300
	Dist. Total	7600	4544	3056	1744	1312

6.8. Block wise potential for credit linkage of SHGs

(₹ lakh)

Sr. No.	Name of the block	No. of SHGs (credit linked) as on 31 March 2022	SHGs to be credit linked during 2022-23				SHGs to be credit linked during 2023-24			
			Fresh		Repeat		Fresh		Repeat	
			No.	Amt	No.	Amt	No.	Amt	No.	Amt
1	Kadana	885	115	92.00	100	80.00	215	215	502	502
2	Khanpur	823	62	49.60	100	80.00	134	134	314	314
3	Lunawada	1085	152	121.60	105	84.00	134	134	314	314
4	Santarampur	915	30	24.00	96	76.80	242	242	565	565
5	Virpur	565	75	60.00	68	54.40	81	81	188	188
6	Balasinor	271	46	36.80	56	44.80	81	81	188	188
	Dist. Total	4544	480	384.00	525	420.00	887	887	2071	2071

Annexure – I
ACTIVITY WISE/BLOCK WISE Physical and financial projections 2023-24

(₹lakhs)

Sr. No.	Activity	Unit size	Unit Cost	% of BL net of margin		Kadana	Khanpur	Lunawada	Santrampur	Balasinor	Virpur	Total
I	Credit Potential for Agriculture											
A	Farm Credit											
I	Crop Production, Maintenance and Marketing											
1	Paddy	Ha	0.68	1	Phy	5000	1000	10000	5000	1000	500	22500
					BL	3385.00	677.00	6770.00	3385.00	677.00	338.50	15232.50
2	Wheat	Ha	0.48	1	Phy	3000	3500	3500	3000	2000	1500	16500
					BL	1449.00	1690.50	1690.50	1449.00	966.00	724.50	7969.50
3	Jowar	Ha	0.12	1	Phy	10	10	10	10	400	10	450
					BL	1.24	1.24	1.24	1.24	49.60	1.24	55.80
4	Bajra	Ha	0.22	1	Phy	50	300	3000	50	1000	500	4900
					BL	11.20	67.20	672.00	11.20	224.00	112.00	1097.60
5	Maize	Ha	0.53	1	Phy	8000	5000	7500	9000	1000	3000	33500
					BL	4248.00	2655.00	3982.50	4779.00	531.00	1593.00	17788.50
6	Cotton Desi	Ha	0.30	1	Phy	10	25	1000	10	3000	200	4245
					BL	3.01	7.53	301.00	3.01	903.00	60.20	1277.75
7	Pulses	Ha	0.28	1	Phy	2530	1500	4000	4000	200	400	12630
					BL	698.28	414.00	1104.00	1104.00	55.20	110.40	3485.88
8	Tobacco	Ha	0.57	1	Phy	0	0	0	0	400	400	800
					BL	0.00	0.00	0.00	0.00	229.20	229.20	458.40
9	Oil seeds/ Soyabeans	Ha	0.39	1	Phy	200	500	750	100	50	100	1700
					BL	78.00	195.00	292.50	39.00	19.50	39.00	663.00
10	Ground nut	Ha	0.39	1	Phy	35	35	500	40	200	1000	1810
					BL	13.65	13.65	195.00	15.60	78.00	390.00	705.90
11	Other food grains	Ha	0.29	1	Phy	271	265	245	255	265	260	1561
					BL	78.59	76.85	71.05	73.95	76.85	75.40	452.69
12	Fodder crops	Ha	0.19	1	Phy	2000	2000	3000	2000	2000	2000	13000
					BL	382.00	382.00	573.00	382.00	382.00	382.00	2483.00
	Crop LoanTotal					10347.97	6179.97	15652.79	11243.00	4191.35	4055.44	51670.52
13	Loan towards HH Consumption (+ 10% of crop loan total)					1034.80	618.00	1565.28	1124.30	419.14	405.54	5167.05
14	Repairs/Maint of farm assets (+20% of crop loan total)					2069.59	1235.99	3130.56	2248.60	838.27	811.09	10334.10
	Total Crop loan					13452.36	8033.95	20348.63	14615.90	5448.76	5272.07	67171.67
ii	Water Resources (WR)											
1	Dug Well	Nos.	1.69	0.8	Phy	155	155	155	155	155	155	930

PLP 2023-24
Mahisagar District

Sr. No.	Activity	Unit size	Unit Cost	% of BL net of margin		Kadana	Khanpur	Lunawada	Santrampur	Balasinor	Virpur	Total
					BL	209.56	209.56	209.56	209.56	209.56	209.56	1257.36
2	Shallow Tube wells	Nos.	1.09	0.8	Phy	80	84	85	80	80	80	489
					BL	69.76	73.25	74.12	69.76	69.76	69.76	426.41
3	Pump sets 15 HP	Nos.	0.61	0.8	Phy	58	55	62	55	53	57	340
					BL	28.21	26.75	30.16	26.75	25.78	27.72	165.38
4	Pump House	Nos.	0.35	0.8	Phy	45	50	55	50	50	50	300
					BL	12.60	14.00	15.40	14.00	14.00	14.00	84.00
5	Lift Irrigation	Ha	1.45	0.8	Phy	165	165	165	165	165	165	990
					BL	191.40	191.40	191.40	191.40	191.40	191.40	1148.40
6	Drip Irrigation (6 x 6 mtrs)	Ha	0.44	0.8	Phy	81	76	80	85	83	85	490
					BL	28.51	26.75	28.16	29.92	29.22	29.92	172.48
7	Sprinkler (8 x 8) Lat size 32 mm	Ha	0.86	0.8	Phy	80	80	80	80	80	80	480
					BL	54.94	54.94	54.94	54.94	54.94	54.94	329.63
8	Porous Pipe based MI system 6X6	Ha	0.59	0.8	Phy	65	66	65	62	62	63	383
					BL	30.83	31.30	30.83	29.40	29.40	29.88	181.63
9	Renovation of wells	Nos.	0.66	0.8	Phy	63	70	70	75	70	75	423
					BL	33.26	36.96	36.96	39.60	36.96	39.60	223.34
10	Solar Pumpsets (Shallow wells) Model II	Nos.	5.40	0.8	Phy	31	32	25	25	33	31	177
					BL	133.92	138.24	108.00	108.00	142.56	133.92	764.64
11	Borewells + Pumpsets	Nos.	3.30	0.8	Phy	16	15	15	16	15	15	92
					BL	42.24	39.60	39.60	42.24	39.60	39.60	242.88
	Total WR				Phy	839	848	857	848	846	856	5094
					BL	835.23	842.75	819.12	815.57	843.18	840.30	4996.15
iii	Farm Mechanisation (FM)											
1	Mini Tractors 20 HP	Nos.	3.30	0.8	Phy	30	30	30	30	30	30	180
					BL	79.20	79.20	79.20	79.20	79.20	79.20	475.20
2	Power Tillers	Nos.	2.00	0.8	Phy	42	42	37	37	40	42	240
					BL	67.20	67.20	59.20	59.20	64.00	67.20	384.00
3	Threshers	Nos.	2.00	0.8	Phy	45	45	45	45	45	45	270
					BL	72.00	72.00	72.00	72.00	72.00	72.00	432.00
4	Rotavator	Nos	1.20	0.8	Phy	62	67	67	52	50	50	348
					BL	59.52	64.32	64.32	49.92	48.00	48.00	334.08
5	Paddy Transplanter	Nos	2.70	0.8	Phy	22	22	22	22	22	22	132
					BL	47.52	47.52	47.52	47.52	47.52	47.52	285.12
	Total FM				Phy	201	206	201	186	187	189	1170
					BL	325.44	330.24	322.24	307.84	310.72	313.92	1910.40
iv	Plantation / Horticulture (PH)											
1	Mango 7.5 x 7.5	Ha	1.49	0.8	Phy	265	270	270	270	280	280	1635
					BL	315.88	321.84	321.84	321.84	333.76	333.76	1948.92
2	Ber	Ha	0.58	0.8	Phy	20	20	20	20	20	20	120

PLP 2023-24
Mahisagar District

Sr. No.	Activity	Unit size	Unit Cost	% of BL net of margin		Kadana	Khanpur	Lunawada	Santrampur	Balasinor	Virpur	Total
					BL	9.28	9.28	9.28	9.28	9.28	9.28	55.68
3	Sapota (chikoo)	Ha	1.29	0.8	Phy	85	85	85	85	85	85	510
					BL	87.45	87.45	87.45	87.45	87.45	87.45	524.70
4	Lime	Ha	1.45	0.8	Phy	58	58	60	58	55	24	313
					BL	67.28	67.28	69.60	67.28	63.80	27.84	363.08
5	Custard Apple	Ha	1.14	0.8	Phy	15	15	15	15	15	15	90
					BL	13.68	13.68	13.68	13.68	13.68	13.68	82.08
6	Pomegranate	Nos	1.44	0.8	Phy	60	60	60	60	60	60	360
					BL	69.12	69.12	69.12	69.12	69.12	69.12	414.72
7	Aonla	Ha	0.90	0.8	Phy	32	30	31	28	27	25	173
					BL	23.04	21.60	22.32	20.16	19.44	18.00	124.56
8	Vegetables	Ha	0.23	0.8	Phy	650	650	660	680	660	600	3900
					BL	119.60	119.60	121.44	125.12	121.44	110.40	717.60
9	Guava	Ha	1.10	0.8	Phy	65	60	66	65	63	66	385
					BL	57.20	52.80	58.08	57.20	55.44	58.08	338.80
10	Med. Arom. Plants	Ha	0.94	0.8	Phy	5	5	5	5	5	5	30
					BL	3.76	3.76	3.76	3.76	3.76	3.76	22.56
	Total PH				Phy	1255	1253	1272	1286	1270	1180	7516
					BL	766.29	766.41	776.57	774.89	777.17	731.37	4592.70
v	Forestry and Wasteland Development											
1	Farm Forestry	Ha	0.56	0.85	Phy	25	22	22	25	22	22	138
					BL	11.90	10.47	10.47	11.90	10.47	10.47	65.69
2	Waste Land Dev.	Ha	0.60	0.85	Phy	25	25	20	20	22	22	134
					BL	12.75	12.75	10.20	10.20	11.22	11.22	68.34
3	Jatropha Cultivation	Ha	0.71	0.85	Phy	35	31	32	35	34	35	202
					BL	21.12	18.71	19.31	21.12	20.52	21.12	121.91
4	Bamboo Plantation	Ha	0.43	0.85	Phy	26	25	22	23	24	25	145
					BL	9.44	9.07	7.98	8.35	8.71	9.07	52.63
5	Teak 2x2	Ha	1.34	0.85	Phy	30	32	32	32	32	32	190
					BL	34.08	36.35	36.35	36.35	36.35	36.35	215.84
	Total Forestry and WD				Phy	141	135	128	135	134	136	809
					BL	89.29	87.36	84.32	87.92	87.27	88.24	524.41
vi	Animal Husbandry- Dairy											
1	Cows Gir	Nos.	1.20	0.8	Phy	700	700	700	700	700	700	4200
					BL	672.00	672.00	672.00	672.00	672.00	672.00	4032.00
2	CB Cows	Nos.	1.20	0.8	Phy	325	320	320	310	260	260	1795
					BL	312.00	307.20	307.20	297.60	249.60	249.60	1723.20
3	Buffaloes Jafarabadi	Nos.	1.40	0.8	Phy	390	385	375	370	375	365	2260
					BL	436.80	431.20	420.00	414.40	420.00	408.80	2531.20
4	Cattle sheds (20 Animal)	Nos.	1.38	0.8	Phy	115	115	115	115	115	115	690

PLP 2023-24
Mahisagar District

Sr. No.	Activity	Unit size	Unit Cost	% of BL net of margin		Kadana	Khanpur	Lunawada	Santrampur	Balasinor	Virpur	Total
					BL	126.96	126.96	126.96	126.96	126.96	126.96	761.76
	Total Dairy	Nos.			Phy	1530	1520	1510	1495	1450	1440	8945
					BL	1547.76	1537.36	1526.16	1510.96	1468.56	1457.36	9048.16
5	WC - Dairy		0.13		BL	1567.42	1567.41	1567.41	1567.41	1567.41	1567.41	9404.47
	Total Dairy				BL	3115.18	3104.77	3093.57	3078.37	3035.97	3024.77	18452.63
vii	AH - Poultry											
1	Broilers (100 birds per unit)	Nos.	0.36	0.8	Phy	83	83	83	83	83	83	498
					BL	23.89	23.89	23.89	23.89	23.89	23.89	143.32
2	Layers Cage (300 layers per unit)	Nos.	1.36	0.8	Phy	40	40	40	40	40	40	240
					BL	43.52	43.52	43.52	43.52	43.52	43.52	261.12
	Total Poultry				Phy	123	123	123	123	123	123	738
					BL	67.41	67.41	67.41	67.41	67.41	67.41	404.44
3	WC - Poultry				BL	1.66	1.66	1.66	1.66	1.66	1.66	9.97
	Total Poultry				BL	69.07	69.07	69.07	69.07	69.07	69.07	414.41
viii	AH - Sheep / Goat / Piggery											
1	Goat Rearing (10+1)	Nos.	0.45	0.8	Phy	180	180	180	180	180	180	1080
					BL	64.80	64.80	64.80	64.80	64.80	64.80	388.80
2	Sheep Rearing (20+1)	Nos.	0.75	0.8	Phy	15	15	15	15	15	15	90
					BL	9.00	9.00	9.00	9.00	9.00	9.00	54
	Total S/G/P				Phy	195	195	195	195	195	195	1170
					BL	73.80	73.80	73.80	73.80	73.80	73.80	442.80
3	WC - AH S/G/P				BL	137.14	137.13	137.13	137.13	137.13	137.14	822.80
	Total S/G/P				BL	210.94	210.93	210.93	210.93	210.93	210.94	1265.60
ix	Fisheries											
1	Fish Ponds- Rennovation	Ha	3.50	0.85	Phy	10	5	5	7	5	5	37
					BL	29.75	14.88	14.88	20.83	14.88	14.88	110.08
2	Reservoir units - small boat\net	Ha	1.65	0.85	Phy	9	8	8	9	8	8	50
					BL	12.61	11.21	11.21	12.61	11.21	11.21	70.08
	Total Fishery				Phy	19	13	13	16	13	13	87
					BL	42.36	26.09	26.09	33.44	26.09	26.09	180.16
3	WC - Fisheries				BL	1.59	1.25	1.25	1.59	1.25	1.21	8.14
	Total Fishery					43.95	27.34	27.34	35.03	27.34	27.30	188.30
x	Farm Credit - Others											
1	Kankrej Bullocks (2)	Nos.	0.60	0.8	Phy	80	75	75	80	75	80	465
					BL	38.40	36.00	36.00	38.40	36.00	38.40	223.2
2	Bullock carts Tyres	Nos.	0.80	0.8	Phy	62	62	6	62	62	62	316
					BL	39.68	39.68	3.84	39.68	39.68	39.68	202.24

PLP 2023-24
Mahisagar District

Sr. No.	Activity	Unit size	Unit Cost	% of BL net of margin		Kadana	Khanpur	Lunawada	Santrampur	Balasinor	Virpur	Total
3	Two wheelers	Nos.	0.70	0.8	Phy	130	130	130	130	130	130	780
					BL	72.80	72.80	72.80	72.80	72.80	72.80	436.8
4	Misc Agricultural advances	Nos.	0.50	0.8	Phy	50	50	50	50	50	50	300
					BL	20.00	20.00	20.00	20.00	20.00	20.00	120.00
	Farm Credit others Total				Phy	322	317	261	322	317	322	1861
					BL	170.88	168.48	132.64	170.88	168.48	170.88	982.24
	TOTAL FARM CREDIT (A)					17370.82	11933.85	24176.97	18458.61	9271.43	9041.44	90253.13
	of which total Term loan					3918.46	3899.89	3828.35	3842.71	3822.68	3769.37	23081.46
B.	Agriculture Infrastructure											
i	Construction of storage											
1	Cold Storage units(500 MT)	Nos.	75.00	0.8	Phy	0	1	1	1	1	1	5
					BL	0.00	60.00	60.00	60.00	60.00	60.00	300.00
2	Rural Godowns (200 MT)	Nos.	18.76	0.8	Phy	4	5	5	5	5	6	30
					BL	60.03	75.04	75.04	75.04	75.04	90.05	450.24
3	Rural Godowns (160 MT)	Nos	15.12	0.8	Phy	6	7	7	8	8	8	44
					BL	72.58	84.67	84.67	96.77	96.77	96.77	532.22
	Total Const. of Storage				Phy	10	13	13	14	14	15	79
					BL	132.61	219.71	219.71	231.81	231.81	246.82	1282.46
ii	Land Development, Soil Conservation, Watershed Developmnet											
1	Contour/ earthen bunding OFD	Ha	0.21	0.8	Phy	430	420	440	440	440	450	2620
					BL	72.24	70.56	73.92	73.92	73.92	75.60	440.16
2	Land Levelling	Ha	0.29	0.8	Phy	280	280	278	275	280	280	1673
					BL	65.86	65.86	65.39	64.68	65.86	65.86	393.49
3	Farm Ponds (20x20x1.5mts)	Ha	0.81	0.8	Phy	60	60	65	65	60	60	370
					BL	38.69	38.69	41.91	41.91	38.69	38.69	238.58
	Total LD				Phy	770	760	783	780	780	790	4663
					BL	176.78	175.10	181.22	180.51	178.46	180.14	1072.23
iii	Others - Agriculture Infrastructure											
1	Tissue Culture Labs	Nos	75.00	0.8	Phy	1	0	0	0	1	0	2
					BL	60.00	0.00	0.00	0.00	60.00	0.00	120.00
2	Seed Production Unit	Nos	17.00	0.8	Phy	22	25	23	25	22	22	139
					BL	299.20	340.00	312.80	340.00	299.20	299.20	1890.40
3	Bio Fertilizer / Pesticide	Nos	32.00	0.8	Phy	17	15	15	16	16	15	94
					BL	435.20	384.00	384.00	409.60	409.60	384.00	2406.40
4	Vermi Compost Unit	Nos	0.20	0.8	Phy	350	325	365	375	355	362	2132
					BL	56.00	52.00	58.40	60.00	56.80	57.92	341.12
	Total Others - Agri Infra				Phy	390	365	403	416	394	399	2367
					BL	850.40	776.00	755.20	809.60	825.60	741.12	4757.92
	TOTAL AGRI INFRA (B)				Phy	1170	1138	1199	1210	1188	1204	7109

PLP 2023-24
Mahisagar District

Sr. No.	Activity	Unit size	Unit Cost	% of BL net of margin		Kadana	Khanpur	Lunawada	Santrampur	Balasinor	Virpur	Total
					BL	1159.79	1170.82	1156.13	1221.92	1235.87	1168.08	7112.61
C	Agriculture - Ancillary activities											
i	Food and Agro processing											
1	Food Grain Grading , process	Nos	56.00	0.8	Phy	2	2	1	1	1	1	8
	Marketing etc.				BL	89.60	89.60	44.80	44.80	44.80	44.80	358.40
2	Food Grain - Aatta Making Units	Nos	11.25	0.8	Phy	11	11	12	11	10	11	66
					BL	99.00	99.00	108.00	99.00	90.00	99.00	594.00
3	Modern Haldi, masala etc.	Nos	5.00	0.8	Phy	12	10	10	10	12	10	64
	spice processing				BL	48.00	40.00	40.00	40.00	48.00	40.00	256.00
4	Working Capital requirement	Nos	20.00	0.75	Phy	15	15	15	15	15	14	89
					BL	225.00	225.00	225.00	225.00	225.00	210.00	1335.00
	Total Food & Agro processing				Phy	40	38	38	37	38	36	227
					BL	461.60	453.60	417.80	408.80	407.80	393.80	2543.40
ii	Agri Ancillary Activities - others											
	Loans to Co op soc, PACS/FSS/LAMPS											
1	Loans to PACS/FSS/LAMPS/Pos	Nos	19.00	0.8	Phy	10	11	10	10	10	10	61
					BL	152.00	167.20	152.00	152.00	152.00	152.00	927.20
2	ACABC Finance	Nos	10.00	0.8	Phy	3	3	3	3	3	3	18
					BL	24.00	24.00	24.00	24.00	24.00	24.00	144.00
	Total Others				Phy	13	14	13	13	13	13	79
					BL	176.00	191.20	176.00	176.00	176.00	176.00	1071.20
	Total Agri Ancillary , (C)				Phy	53	52	51	50	51	49	306
					BL	637.60	644.80	593.80	584.80	583.80	569.80	3614.60
I	TOTAL AGRICULTURE (A+B+C)					19168.22	13749.46	25926.90	20265.33	11091.10	10779.32	100980.34
	WC-AH+F - KCC (D)					1707.81	1707.45	1707.45	1707.79	1707.45	1707.42	10245.38
	GROSS Total (A+B+C+D)					20876.03	15456.91	27634.35	21973.12	12798.55	12486.74	111225.71
	of which ATL											33808.67
II	Micro, small and Medium Enterprises											
	Term Loans											
i	Term Loans											
1	Micro Enterprises	Nos	25.00	0.8	Phy	22	20	23	21	15	22	123
					BL	440.00	400.00	460.00	420.00	300.00	440.00	2460.00
2	Small Enterprises	Nos	250.00	0.8	Phy	1	0	1	0	0	0	2
					BL	200.00	0.00	200.00	0.00	0.00	0.00	400.00
3	Medium enterprises	Nos	750.00	0.8	Phy	1	0	1	1	0	0	3
					BL	600.00	0.00	600.00	600.00	0.00	0.00	1800.00
	Total TL Mfg sector				Phy	24	20	25	22	15	22	128
					BL	1240.00	400.00	1260.00	1020.00	300.00	440.00	4660.00
ii	Working Capital											
1	Micro Enterprises	Nos	5.00	0.8	Phy	22	20	23	21	15	22	123

PLP 2023-24
Mahisagar District

Sr. No.	Activity	Unit size	Unit Cost	% of BL net of margin		Kadana	Khanpur	Lunawada	Santrampur	Balasinor	Virpur	Total
					BL	88.00	80.00	92.00	84.00	60.00	88.00	492.00
2	Small Enterprises	Nos	50.00	0.8	Phy	1	0	1	0	0	0	2
					BL	40.00	0.00	40.00	0.00	0.00	0.00	80.00
3	Medium industries	Nos	100.00	0.8	Phy	1	0	1	0	1	0	3
					BL	80.00	0.00	80.00	0.00	80.00	0.00	240.00
	Total TL Service sector				Phy	24	20	25	21	16	22	128
					BL	208.00	80.00	212.00	84.00	140.00	88.00	812.00
II	TOTAL MSME					1448.00	480.00	1472.00	1104.00	440.00	528.00	5472.00
III	Credit Potential for Export Credit											
1	Pre shipment finance/ packing credit	Nos	60.00	0.8	Phy	1	0	0	0	0	1	2
					BL	48.00	0.00	0.00	0.00	0.00	48.00	96.00
2	Post shipment finance	Nos	35.00	0.8	Phy	1	0	0	0	0	1	2
					BL	28.00	0.00	0.00	0.00	0.00	28.00	56.00
	Total Export Credit				Phy	2	0	0	0	0	2	4
					BL	76.00	0.00	0.00	0.00	0.00	76.00	152.00
IV	Credit Potential for Education											
1	Higher Education loans	Nos	10.00	0.9	Phy	12	11	12	12	12	12	71
					BL	108.00	99.00	108.00	108.00	108.00	108.00	639.00
2	Education loans -Tech,others	Nos	6.00	0.9	Phy	33	33	33	31	32	33	195
					BL	178.20	178.20	178.20	167.40	172.80	178.20	1053.00
	Total EducationCredit				Phy	45	44	45	43	44	45	266
					BL	286.20	277.20	286.20	275.40	280.80	286.20	1692.00
V	Credit potential for Housing											
1	Housing Loan	Nos	20.00	0.8	Phy	30	29	33	32	31	31	186
					BL	480.00	464.00	528.00	512.00	496.00	496.00	2976.00
2	Housing Loan Rennovation	Nos	5.00	0.8	Phy	36	37	46	46	45	44	254
					BL	144.00	148.00	184.00	184.00	180.00	176.00	1016.00
	Total Housing Credit				Phy	66	66	79	78	76	75	440
					BL	624.00	612.00	712.00	696.00	676.00	672.00	3992.00
VI	Social Infrastructure involving bank credit											
1	Madhyamik school	Nos	70.00	0.8	Phy	1	0	0	0	0	0	1
					BL	56.00	0.00	0.00	0.00	0.00	0.00	56.00
2	Prathamik school	Nos	25.00	0.8	Phy	1	0	1	0	1	1	4
					BL	20.00	0.00	20.00	0.00	20.00	20.00	80.00
3	Hospital Taluka level	Nos	125.00	0.8	Phy	1	0	0	0	0	0	1
					BL	100.00	0.00	0.00	0.00	0.00	0.00	100.00
4	Drinking water RO plants	Nos	5.00	0.8	Phy	30	30	30	30	30	30	180

PLP 2023-24
Mahisagar District

Sr. No.	Activity	Unit size	Unit Cost	% of BL net of margin		Kadana	Khanpur	Lunawada	Santrampur	Balasinor	Virpur	Total
					BL	120.00	120.00	120.00	120.00	120.00	120.00	720.00
5	Toilets / sanitation	Nos	0.22	0.8	Phy	170	172	170	172	165	166	1015
					BL	29.92	30.27	29.92	30.27	29.04	29.22	178.64
	Total Social Infrastructure				Phy	203	202	201	202	196	197	1201
					BL	325.92	150.27	169.92	150.27	169.04	169.22	1134.64
VII	Renewable Energy											
1	GAIC(3 cu.mt)	Nos	0.28	0.6	Phy	70	72	70	65	71	68	416
					BL	11.76	12.10	11.76	10.92	11.93	11.42	69.89
2	KVIC(3 cu.mt)	Nos	0.25	0.6	Phy	70	72	70	65	72	68	417
					BL	10.50	10.80	10.50	9.75	10.80	10.20	62.55
3	Solar water heater sytems (100 lpd)	Nos	0.40	0.8	Phy	60	60	60	60	60	60	360
					BL	19.20	19.20	19.20	19.20	19.20	19.20	115.20
4	3 HP Solar Pumpset with AC motor	Nos	2.91	0.6	Phy	10	10	10	10	10	10	60
					BL	17.46	17.46	17.46	17.46	17.46	17.46	104.76
5	Resi. Rooftop Solar system (2KV)	Nos	0.76	0.6	Phy	2	2	2	1	2	2	11
					BL	0.91	0.91	0.91	0.46	0.91	0.91	5.02
	Total Renewable energy				Phy	212	216	212	201	215	208	1264
					BL	59.83	60.47	59.83	57.79	60.30	59.20	357.41
VIII	Credit potential for others											
1	Fresh Loans to SHG	Nos	1.00	0.8	Phy	115	62	152	30	46	75	480
					BL	92.00	49.60	121.60	24.00	36.80	60.00	384.00
2	Repeat Loans to SHGs	Nos	1.00	0.8	Phy	100	100	105	96	56	68	525
					BL	80.00	80.00	84.00	76.80	44.80	54.40	420.00
3	Loans to JLGs	Nos	0.40	0.8	Phy	70	68	70	69	65	60	402
					BL	22.40	21.76	22.40	22.08	20.80	19.20	128.64
4	Loans to Distressed	Nos	1.00	0.8	Phy	30	25	29	29	35	30	178
					BL	24.00	20.00	23.20	23.20	28.00	24.00	142.40
5	Loans under PMJDY	Nos	0.50	0.8	Phy	60	60	60	60	60	60	360
					BL	24.00	24.00	24.00	24.00	24.00	24.00	144.00
6	WC - PMJDY	Nos.	0.10	0.8	Phy	40	40	40	40	40	40	240
					BL	3.20	3.20	3.20	3.20	3.20	3.20	19.20
7	Govt. sponsored SC/ST	Nos	0.50	0.8	Phy	25	25	25	25	25	22	147
					BL	10.00	10.00	10.00	10.00	10.00	8.80	58.80
8	Misc. PMEGP, VBY, GBCDC	Nos	0.50	0.8	Phy	50	50	50	50	50	50	300
					BL	20.00	20.00	20.00	20.00	20.00	20.00	120.00
	Total - Others				Phy	490	430	531	399	377	405	2632
					BL	275.60	228.56	308.40	203.28	187.60	213.60	1417.04
	TOTAL PRIORITY SECTOR				BL	23971.58	17265.41	30642.71	24459.86	14612.29	14490.95	125442.81
	(I to VIII)											

Annexure-II

An overview of Flow of Ground Level Credit Flow - Agency-wise and Sector-wise for 2019-20, 2020-21, 2021-22 and targets for 2022-23 (₹ Lakhs)

Sr. No.	Agency / type of Loan	2019-20		2020-21		2021-22		2022-23
		Target	Ach	Target	Ach	Target	Ach	Target
1)	CROP LOAN							
	CBs	24490	20197	25310	16350.92	27206.00	33810.08	29953.00
	CCB/SCB	3980	3130	3580	3535	3868.00	4294.13	4254.00
	SCARDB	0	0	0	0	0.00	0	0.00
	RRB	9040	11930	9840	11633.01	10550.00	11781.61	11605.00
	Sub total (A)	37510	35257	38730	31518.93	41624.000	49885.820	45812.00
2)	TERM LOAN (MT+LT)							
	CBs	9640	5497	11920	7896.38	12717.00	11552.49	14019.00
	CCB/SCB	2450	519	920	409	1004.00	710.00	1094.00
	SCARDB	190	54	505	0	549.00	0	603.00
	RRB	1280	423	2210	366.5	2396.00	288.27	2626.00
	Sub total (B)	13560	6493	15555	8671.88	16666.00	12550.76	18342.00
3)	Total Agricultural Credit							
	CBs	34130	25694	37230	24247.3	39923.00	45362.57	43972.00
	CCB/SCB	6430	3649	4500	3944.00	4872.00	5004.13	5348.00
	SCARDB	190	54	505	0	549.00	0.00	603.00
	RRB	10320	12353	12050	11999.51	12946.00	12069.88	14231.00
	Sub total (A) + (B) = C	51070	41750	54285	40190.81	58290.00	62436.58	64154.00
4)	NON FARM SECTOR							
	CBs	1835	7033	3700	18433.11	8724.00	8628.97	11233.00
	CCB/SCB	90	0	280	45.00	630.00	98.5	702.00
	SCARDB	0	0	0	0	0.00	0	0.00
	RRB	430	122	570	1077.39	1126.00	1413.79	1330.00
	Sub total (D)	2355	7155	4550	19555.50	10480.00	10141.26	13265.00
5)	OTHER PRIORITY SECTOR							
	CBs	5285	1840	6315	74.59	2167.00	1077.97	742.00
	CCB/SCB	95	716	415	646.00	121.00	1676.79	106.00
	SCARDB	15	0	30	0	33.00	0	36.00
	RRB	625	206	710	52.19	254.00	182.7	164.00
	Sub total (E)	6020	2762	7470	772.78	2575.00	2937.46	1048.00
6)	GRAND TOTAL							
	CBs	41250	34567	47245	42755	50814	55069.51	55947.00
	CCB/SCB	6615	4365	5195	4635	5623	6779.42	6156.00
	SCARDB	205	54	535	0	582	0.00	639.00
	RRB	11375	12680.69	13330	13129.09	14326	13666.37	15725.00
	GRAND (C+D+E)	59445	51667	66305	60519	71345	75515.30	78467.00

Annexure – III

Sub-sector- wise and Agency-wise Credit Flow under Agriculture and allied activities 2018-19, 2019-20, 2020-21 and target for 2021-22

(₹Lakhs)

Sr.No	Particulars Agencies/ Activiites	2019-20				2020-21				2020-21				2022-23 Targets			
		CBs	Co-ops	RRBs	Total	CBs	Co-ops	RRBs	Total	CBs	Co-ops	RRBs	Total	CBs	Co-ops	RRBs	Total
I.	Crop loans	20197	3130	11930	35257	9167	3535	11633	24335	33810	4294	11782	49886	29953	4254	11605	45812
II.	Term Loans																
a	MI	26	0	8	34	0	0	0	0	10723	710	288	11721	11856	1396	2167	15419
b	LD	6	0	0	6	0.2	0	0	0.2	799	0	0	799	1616	168	333	2117
c	FM	538	30	0	568	341	40	30	410	31	0	0	31	0	0	0	0
d	P&H	35	0	0	35	0.3	0	0	0.3	0	0	0	0	0	0	0	0
e	DD	2252	459	0	2711	1863	354	31	2248	0	0	0	0	0	0	0	0
f	Poultry	2663	0	0	2663	0.3	0	0	0.3	0	0	0	0	0	0	0	0
g	S/G/P	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0
h	Fisheries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
i	F/WLD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
j	SG/MY	450	0	0	450	0	20	0	20	0	0	0	0	0	0	0	0
k	BG/Ren. Energy	0	0	0	0				0	0	0	0	0	0	0	0	0
l	Others	26	0	0	26	3690	15	305	4010	0	0	0	0	547	133	126	806
	Sub-total-II	5997	489	8	6493	5896	429	366	6691	11553	710	288	12551	14019	1697	2626	18342
	Grand Total (I+II)	26194	3619	11938	41750	15063	3964	11999	31026	45363	5004	12070	62437	43972	5951	14231	64154

Annexure- IV

Indicative unit costs (for major activities of the district) as arrived at by NABARD for its internal use

Sr. No.	Name of the Sector / Activity	Unit Cost (Rs)	Unit size	Sr. No.	Name of the Sector / Activity	Unit Cost (Rs)	Unit size
1	Water Resources			6	ANIMAL HUSBANDRY		
a	Dug Well (2.5 X20 M) / Bore well +P. set	169000/ 300000	Nos.	(i)	Dairy Development		
b	Shallow Tube well 75 /150 mtrs	77000/ 109000	Nos.	a	Indig. Cows Gir/Kankarej	120000	2 animals
c	Pumpset (15 HP)/ Pumphouse	60800/ 35000	Ha.	b	CB Cows Jersey	91000	2 animals
d	Drip irrigation (6x6)	44000	Ha.	c	CB Cows HF	120000	2 animals
e	Sprinkler Irri. Mini (8x8)32 mm	85851	Nos.	d	Buffaloes Mehsani	130000	2 animals
f	Pipe based MI (6 x 6) 16 mm	59280	Nos.	e	Buffaloes Jafrabadi	140000	2 animals
g	Sub. Pumpset (15 HP) / Solar PS (SW) Model II	60800/ 540000	Nos.	f	Buffaloes Surati	90000	2 animals
h	Renovation / Deepning of well	66000	Nos.	g	Cattle Shed (20 animals)	125000	1 No.
2	Land Development			h	Bulk Coolers	1500000	2000 ltr
a	Land Leveling	29400	Ha	i	Fodder Cultivation	16000	Ha
b	Waste Land Devp.	76800	Ha	j	Bulk Milk chilling unit	2400000	5000 ltr
c	Farm Pond (20x20x1.5 mts)/ Water Mgmt	80600	Ha	k	Refrigerated vans	2000000	Nos.
d	Contour /earthen bunding OFD	21000	Ha	(ii)	Poultry Development		
e	Water lining	27000	Ha	a	Layer Birds (cage system)	136000	300 Nos.
f	Fencing. Reg. 5 ft	117900	Ha	b	Broiler Birds (Deep Litter)	36000	100 Nos.
g	Vermiculture Hatcheries (under NPOF)	800000	150 TPA	c	Rabbit Rearing	5500	6 Nos.
h	Vermicompost Unit	20000	Nos.	d	Hatchery (2.5 lakh)	2200000	Nos.
3	FARM MECHANISATION			(iii)	Sheep / Goat		
a	Rotavator	120000	Nos.	a	Sheep (20 + 1)	75000	Nos.
b	Power Tiller	200000	Nos.	b	Goat (10+1)	45000	Nos.
c	Threshers	200000	Nos.				
d	Paddy Transplanter	270000	Nos.	7	FISHERIES		
e	Mini Tractor 20 HP	330000	Nos.	a	Non mechanized boats(wooden)	220000	Nos.
				b	Reservoir fishing unit – small boat+net	150000	Nos.
4	PLANTATION / HORTICULTURE			c	4 Stroke Engines upto 10HP	160000	Nos.
a	Mango 10x10	145000	Ha	d	Fire Glass Boats	500000	Nos.
b	Sapota 10x10	128600	Ha	e	Fish Pond (new)	700000	Ha
c	Lime 3x3	145000	Ha	f	Renovation of old pond	350000	Ha
d	Cus Apple 5x5 / Ber	114000/ 58000	Ha				
e	Amla 4x5	90000	Ha				
f	Vegetables	23000					
g	Guava 3x6	110050	Ha	8	STORAGE GODOWNS / MARKET YARDS		
h	Medicinal / Aromatic Plants (others)	94000	Ha	a	Cold Storage Units 160/200/300	15600/ 15300/ 15000	MT
i	Nursery Small (4 guntha)	400000	Ha	b	Cold Storage Unit Avg. cost	15000	MT
j	Others (Pomegranate) 5x5	144000	Ha	c	Rural Godowns 160 /200 /300	9460/ 9380/ 9200	MT
5	FORESTRY / WASTE LAND DEVP.				Avg cost Ru.Godowns	9200	MT
a	Farm forestry	56000	Ha	9	BIO GAS / Solar Pumping Systems		
b	Social Forestry – Waste Land Development	60000	Ha	a	GAIC /KVIC 3.0 cum size	28000/ 25000	Nos.
c	Farm Forestry (Bamboo, etc) 5x5	42700	Ha	b	Vermi Hatchery	800000	150 TPA
d	Teak 2 x 2	133650	Ha	c	Solar Shallow well 1/2/3 HP		Nos.

PLP 2023-24
Mahisagar District

Sr. No.	Name of the Sector / Activity	Unit Cost (Rs)	Unit size	Sr. No.	Name of the Sector / Activity	Unit Cost (Rs)	Unit size
					AC	145350/ 290700/ 436050	
e	Jatropha Plantation 2x2	71000	Ha	d	Solar deep well 1/2/3 HP AC	193800/ 290700/ 484500	Nos.
	OTHER ALLIED ACTIVITIES			10	OTHER ALLIED ACTIVITIES		
a	Tilting Cart Model-I Aaruni Shreshtha	80000	single	a	Bullock Pair Kankrej	60000	Nos.
b	Tilting Cart Model-I Aaruni Super	38500	single	b	Bullock Pair Gir	35000	Nos.
c	Tilting Cart Model-I Aaruni Adhyatan	38500	single	c	Bullock carts Tyres	80000	Nos.
d	Tilting Cart Model-I Aaruni 2 wheel	16500	single	d	He Buffalo (pair)	80000	Pair
e	Camel Cart-Conventional	11000	single	e	Camel(single)	35-50000	single
f	Camel Cart-Steel and wooden body	27500	single	f	Two wheelers	70000	single
g	Horse Cart	9000	single	g	Bullock Cart Improved (wood steel body pneu. wheels)	35000	single
h	Bullock Cart Conventional(desired wood wooden wheel)	30000	single	h	-do- Improved (Steel body pneumatic wheels)	40000	single
i	-do- Improved (Sag wood pneumatic wheels)	38000	single				
Note: Above mentioned units costs are only indicative and based on the viability of the project, the banks may decided about the unit cost / loan amount.							

Annexure- V

Scales of Finance for major crops fixed by District Level Technical Committee (DLTC) for
2022-23

Main Crops				Aurvedic /aeromatic plants - Scale of finance		
Sr No.	Name of Crop	Irrigated (₹)	Unirrigated (₹)	Sr. No.	Crop name	(₹)
1	Paddy (High yielding)	67700	37100	1	Ardushi	6700
2	Paddy (local)	33700	33700	2	aamla	45900
3	Maize (Desi)	53100	48300	3	Ashvgandha	7800
4	Maize (Hybrid)	48300	48300	4	Atish	25400
5	Groundnut	38400		5	Brahmni	8000
6	Cotton	30100	90750	6	Bugri	12300
7	Tobacco	57300	0	7	Ulga	22400
8	Hybrid Bajra (Rainy season)	22400	0	8	Buch	30800
9	Ragi (Nachni)	11100	0	9	Sitroleta	63500
10	Hybrid Jowar	12400	0	10	Kesterbins	13300
11	Udad	24200	0	11	Chandrasur	7400
12	Tur	32200	0	12	chireeta	18800
13	High Yielding wheat	48300	0	13	Kolas	10900
14	Groundnut (summer season)	51600	0	14	Datura	7500
15	HY Bajra Summer season	30600	0	15	Gavarpath	62700
16	Gram (Chandadal)	29000	0	16	Goodmar	19000
17	Ginger	73700	0	17	Gilo	14600
18	Raydo (Raee)	30500	0	18	Esabgul	7100
19	Sugercane	140600	0	19	Jojoba	39200
20	Banana	74500	0	20	Jatamasi	19200
21	BananaTissue	157300	0	21	Kavensali	8600
22	Castor	48300	0	22	Kalihari	201600
23	Sunflower Soyabean	38600	0	23	Kalmedh	8600
24	Chilly	33700	0	24	Kvochibich	6900
25	Garlic / Potato	77600	0	25	Kulaki	19200
26	Onion	61300	0	26	Lemongrass	75800
27	Dhana	19500	0	27	Mekoy	10100
28	Vegetables	27600	0	28	Medihina	19000
29	Rajko (Fodder)	19100	0	29	Montha	64700
30	Cumin (Jira)	30500	0	30	Mulothi Likbori	18500
31	Fennel seeds	22400	0	31	Palmaroza	24000
32	Hybrid tomato / Hybrid Chilly	77600	0	32	Palcholi	23700
33	Green Gram Mung	24200	0	33	Pipli	44800
34	Sesame (Til) / Guwar	13200	0	34	Sarpghandha	23900
35	Maize Rabi season (Deshi)	40300	0	35	Solva	262100
36	Maize Rabi season (Hybrid)	48300	0	36	Sadabahar	7400
37	Maize Rabi season (Hybrid)	43900	0	37	Sonamukhi	16000
				38	Safed mushdi	252000
				39	Satavar	5500
				40	Tilshi	10800

S no.	SOF for AH - Dairy, Poultry, SGP and Fisheries /1 Unit	₹
1	Cow/buffalo	13200
2	Goat 10+1	6600
3	Sheep 10+1	10000
4	Poultry (300 birds)	19800
5	Fishery 1 unit 1 Ha	242000
6	Reservior Water 1 ha	132000
7	Non Mech. Boat	27500
8	Mechanised Boat	60500

LIST OF ABBREVIATIONS

ACP	Annual Credit Plan	DTPC	District Tourism Promotion Council
ACABC	Agri Clinic and Agri Business Centre	EDP	Entrepreneurship Development Programme
ADS	Area Development Scheme	e-NAM	e-National Agriculture Market
AEZ	Agri. Export Zone	FIF	Financial Inclusion Fund
AH	Animal Husbandry	FLC	Financial Literacy Centre
AMRUT	Atal Mission for Rejuvenation and Urban Transformation	FLCC	Financial Literacy and Credit Counselling Centres
AIF	Agriculture Infrastructure Fund	FM	Farm Mechanization
AMI	Agriculture Marketing Infrastructure	FPF	Food Processing Fund
APMC	Agricultural Produce Market Committee	FPO	Farmer Producers' Organization
APY	Atal Pension Yojana	FSPF	Farm Sector Promotion Fund
APEDA	Agricultural and Processed Food Products Export Development Authority	GCA	Gross Cropped Area
AI	Artificial Insemination	GCF	Green Climate Fund
ATMA	Agricultural Technology Management Agency	GIA	Gross Irrigated Area
BC	Business Correspondent	GLC	Ground Level Credit
BF	Business Facilitator	GoI	Government of India
BLBC	Block Level Banker's Committee	HYV	High Yielding Variety
BPL	Below Poverty Line	ICT	Information and Communications Technology
BSBDA	Basic Savings Bank Deposit Account	IWMS	Integrated Watershed Management Scheme
CAT	Capacity Building for Adoption of Technology	JLG	Joint Liability Group
CBs	Commercial Banks	KCC	Kisan Credit Card
CBS	Core Banking Solution	KVIB/KVIC	Khadi and Village Industries Board/ Khadi and Village Industries Commission
CCF	Climate Change Fund	KYC	Know Your Customer
CDR	Credit Deposit Ratio	KVK	Krishi Vigyan Kendra
CGTMSE	Credit Guarantee Fund Trust for Micro and Small Enterprises	LBR	Lead Bank Return
CISS	Capital Investment Subsidy Scheme	LDM	Lead District Manager
CRAR	Capital to Risk weighted Asset Ratio	LEDP	Livelihood and Enterprise Development Programmes
DAP	Development Action Plan	LWE	Left Wing Extremism
DBT	Direct Benefit Transfer	MEDP	Micro Enterprise Development Programme
DDD-GKY	Deen Dayal Upadhyaya-Grameen Kaushal Yojana	MFI	Micro Finance Institution
DCCB	District Central Cooperative Bank	MIDH	Mission for Integrated Development of Horticulture
DCC	District Consultative Committee	MI	Minor Irrigation
DCP	District Credit Plan	MNRE	Ministry of New and Renewable Energy
DDM	District Development Manager	MNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
DIDF	Dairy Processing and Infrastructure Development Fund	MSME	Micro, Small and Medium Enterprises
DLRC	District Level Review Committee	MoRD	Ministry of Rural Development
DLTC	District Level Technical Committee	MSC	Multi Service Centre
DRDA	District Rural Development Agency	NABARD	National Bank for Agriculture and Rural Development
NBFC	Non-Banking Financial Company	PPP	Public Private Partnership
NDDB	National Dairy Development Board	PRI	Panchayati Raj Institution
NEFT	National Electronic Fund Transfer	PWCS	Primary Weavers Cooperative Society
NFDB	National Fisheries Development Board	RBI	Reserve Bank of India
NAFCC	National Adaptation Fund for Climate Change	RIDF	Rural Infrastructure Development Fund
NHB/ NHM	National Horticulture Board/ National Horticulture Mission	RNFS	Rural Non-Farm Sector
NIDA	NABARD Infrastructure Development Assistance	RKBY	Rashtriya Krishi Bima Yojana
NIA	Net Irrigated Area	RKVY	Rashtriya Krishi Vikas Yojana
NRLM	National Rural Livelihood Mission	RRB	Regional Rural Bank
NRM	National Resource Management	RUDSETI	Rural Development & Self Employment

			Training Institute
NSA	Net Sown Area	RSETI	Rural Self Employment Training Institute
NSSO	National Sample Survey Organisation	SAMIS	Service Area Monitoring and Information System
NWR	Negotiable Warehouse Receipt	SAO	Seasonal Agriculture Operation
OFPP	Off-Farm Promotion Fund	SCARDB	State Cooperative Agriculture & Rural Development Bank
OPS	Other Priority Sector	SDI	Skill Development Initiative
PACS	Primary Agricultural Cooperative Society	SF/MF	Small Farmer / Marginal Farmer
PCARDB	Primary Cooperative Agriculture & Rural Development Bank	SFAC	Small Farmers' Agri-Business Consortium
P & H	Plantation & Horticulture	SHG	Self Help Group
PKVY	Paramparagat Krishi Vikas Yojana	SHPI	Self Help Group Promotion Institution
PMFBY	Pradhan Mantri Fasal Bima Yojana	SIDBI	Small Industries Development Bank of India
PMJDY	Pradhan Mantri Jan Dhan Yojana	SMAM	Sub Mission on Agricultural Mechanization
PMJJBY	Pradhan Mantri Jeevan Jyoti Bima Yojana	SLBC	State level Banker's Committee
PMKVY	Pradhan Mantri Kaushal Vikas Yojana	SRI	System of Rice Intensification
PMMY	Pradhan Mantri Mudra Yojana	SRLM	State Rural Livelihood Mission
PMRY	Prime Minister's Rozgar Yojana	StCB	State Cooperative Bank
PMSBY	Pradhan Mantri Suraksha Bima Yojana	TDF	Tribal Development Fund
PMKSY	Prime Mantri Krishi Sinchayee Yojana	WDF	Watershed Development Fund
PODF	Producer Organisation Development Fund	WDRA	Warehousing Development and Regulatory Authority
POPI	Producer Organisation Promoting Institution	WIF	Warehouse Infrastructure Fund
POS	Point of Sale	WSHG	Women Self Help Group

गुजरात के जिला विकास प्रबंधक

अमरेली श्री जिग्नेश टी झाला Ph: 9408441238 Email : amreli@nabard.org	आणंद श्री अमित भट्ट Ph: 9619040232 Email : anand@nabard.org
बनासकांठा श्री अजित एन दिघे Ph: 9426673718 Email : banaskantha@nabard.org	वडोदरा श्री दर्शन देओरे Ph: 9594977667 Email : vadodara@nabard.org
भरूच श्री अनंत वर्धम Ph: 9820697635 bharuch@nabard.org	भावनगर श्री दीपककुमार खलास Ph: 9510050065 Email : bhavnagar@nabard.org
दाहोद श्री राहुल देवचंद्र बांगर Ph: 9920055773 Email : dahod@nabard.org	जामनगर श्री नगेन्द्र शर्मा Ph: 9459584230 Email : jamnagar@nabard.org
जूनागढ़ श्री किरण राऊत Ph: 9408111092 Email : junagadh@nabard.org	कच्छ श्री निरजकुमार सिंह Ph: 9833741538 Email : kutch@nabard.org
मेहसाणा श्री राहुल पाटील Ph: 9040404056 Email : mehsana@nabard.org	नवसारी श्री बी के सामंतराय Ph: 7600841626 Email : navsari@nabard.org
पंचमहाल श्री राजेश आर भोसले Ph: 9969015312 Email : panchmahal@nabard.org	पाटन श्री राकेश कुमार वर्मा Ph: 8460110099 Email : patan@nabard.org
राजकोट श्री धर्मेन्द्र जी चौहान Ph: 9638721552 Email : rajkot@nabard.org	साबरकांठा श्री नवल जे कन्नोर Ph: 9409067117 Email : sabarkantha@nabard.org
सूरत सुश्री कुंतल एल सूरती Ph: 9969926876 Email : surat@nabard.org	सुरेन्द्रनगर श्री अरसू बरनाबस Ph : 9408111361 Email : surendranagar@nabard.org
वलसाड श्री गौरव कुमार Ph: 9594078851 Email : valsad@nabard.org	गांधीनगर श्री विशाल शर्मा Ph: 8954137526 Email : gandhinagar@nabard.org
अहमदाबाद श्री भरत बी पटेल Ph: 9426518364 Email : ddm.ahmedabad@nabard.org	



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