



संभाव्यता युक्त ऋण योजना 2019-20

Potential Linked Credit Plan 2019-20

उत्तर गोवा ज़िला

NORTH GOA DISTRICT

राष्ट्रीय कृषि और ग्रामीण विकास बैंक

National Bank for Agriculture and Rural Development

गोवा क्षेत्रीय कार्यालय, पणजी

GOA REGIONAL OFFICE, PANAJI



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.

FOREWORD

It gives me pleasure to present the Potential Linked Credit Plan (PLP) prepared by NABARD for the year 2019-20 for North Goa District. PLP is an attempt to estimate potential for disbursement of credit for various priority sectors in the district. It is also an assessment of the gaps in infrastructure support which need to be filled in to fully exploit the realizable potentials. Policy initiatives both at the Central and state level have been highlighted in the document to give the readers a macro policy perspective. A detailed consultative process involving all stakeholders in the district was followed to arrive at the potentials. The PLP serves as a resource document for preparing Branch Credit Plans based on which the Annual Credit Plan (ACP) is compiled by the Lead Bank of the District.

A credit potential of ₹ 3,778.00 crore has been assessed for North Goa District for the ensuing financial year 2019-20 for various priority sectors. I am sure that the potentials can be tapped with coordinated efforts among all stakeholders.

I take this opportunity to call upon the bankers to integrate credit with extension, engage with the clientele, make best use of community based organizations and above all sensitize the branch personnel. I also call upon line Departments to keep in mind the banking aspects while delivering extension services.

I wholeheartedly acknowledge the support and cooperation extended by the District Administration, Officials of line departments, Bankers and Developmental Agencies, as also feedback provided by farmers/entrepreneurs in enriching this document.

Let us collectively strive to ensure the economic development in the North Goa district through timely and adequate credit and infrastructure support. Together, we can.

Ms. Kamakshi S. Pai
General Manager / Officer-in-Charge
NABARD, Goa Regional Office

15 October 2018

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Executive Summary

The major economic activities in North Goa district are Tourism, Mining, Agriculture and Fisheries. The major crops grown are Paddy, Pulses, Sugarcane and Vegetables. Major plantation crops are Coconut, Cashewnut, Mango & Arecanut. Being a tourist state, the economy is predominantly service sector driven. The banking outreach in the district is excellent with over 53 banks operating through a network of 399 rural and semi urban branches.

The ground level credit in North Goa under priority sector in 2015-16, 2016-17, 2017-18 were to the tune of ₹ 2304.00 crore, ₹ 2282.00 crore and ₹ 2916.00 crore respectively. During 2017-18 the priority sector achievement was to the tune of 81%. These projections are based on parameters such as technical feasibility, availability of infrastructure, exploitable resources, cropping pattern, agriculture practices and other developmental indices like health care, market access, etc. The policies and priorities of GoI and State Government manifested in priority sector guidelines by RBI have been kept in mind while estimating the credit potentials.

Projections for crop loans (at ₹ 250.00 crore) accounts for about 46% of the total farm credit of ₹ 539.00 crore. The balance 54% is for term lending activities in the Farm Sector which will lead to long term capital formation leading to better farm incomes in a sustainable manner and help achieve the aim to double the farmers' income by 2022. Bankers, however, have to ensure proper end use of the loans sanctioned under this sector that enjoy interest subvention benefits as well as subsidy support by the GoI / State Government. The Area Development Scheme 2018-23 formulated by NABARD on Commercial Cashew Cultivation and Dairying is being implemented in 03 blocks of North Goa. Land title issue is a serious impediment in agricultural credit flow. Policy reforms in land ownership, community farming and contract farming are required to be rolled out on a priority basis.

Considering small farm holding size and the need for value addition and processing facilities, the thrust areas for 2019-20 would ideally be a more focused approach to group lending while also ensuring setting up of primary processing and storage facilities. Collective farming, farmer-level aggregation, processing and product branding are the way forward for farmers to realise better price.

In tune with its service sector economy, the performance under MSME has been robust in the last few years. The potential under this sector has been assessed at ₹ 2100.00 crore (nearly 56% of the total priority sector). The projection for Other Priority Sectors (Export Credit, Education, Housing, Renewable Energy and Social Infrastructure) have been pegged at ₹ 1139.00 crore.

The District is well developed as far as social infrastructure is concerned. However, there is still need for investments (both public and private) under sectors like Irrigation, Dairy Infrastructure, Marketing infrastructure, Health, Sanitation, Waste management, Renewable energy, etc. NABARD support by way of Rural Infrastructure Development Fund (RIDF) / Warehousing Infrastructure Fund (WIF) / NABARD Infrastructure Development Assistance (NIDA) can be tapped to build the needed infrastructure. Climate change effects in the District also need to be tabulated and appropriate adaptation and / or mitigation projects need to be designed to address the issue.

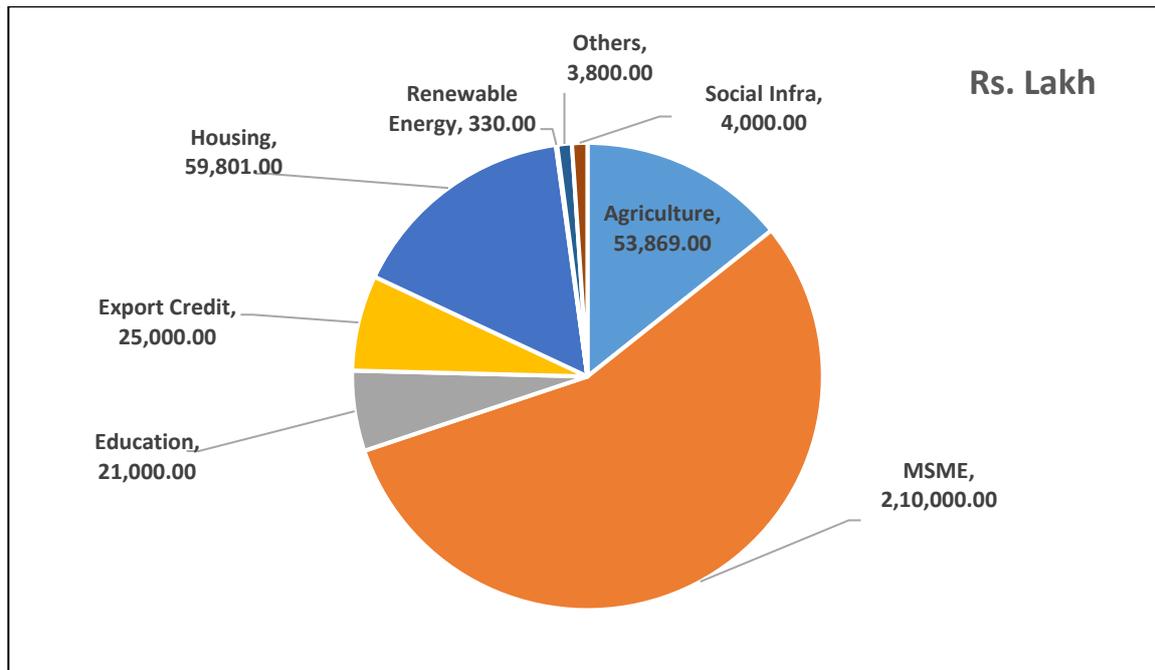
The progress under the Self Help Group (SHG) - Bank Linkage programme has been poor with only about 28% of the SHGs being credit linked in North Goa as SHGs are not taking up Income Generating Activities. NABARD project for digitization of SHGs – EShakti – is under implementation in the district. The project is likely to converge efforts of all stakeholders and use SHGs as SPV for economic development.

Coordinated efforts by all the stake holders are required to ensure desired flow of credit to priority sector in general and investment credit for enhancing capital formation in particular.

Appendix A to Annexure 1 - Broad Sector wise PLP projections - 2019-20

(₹ lakh)

Sr. No.	Particulars	PLP Projections
A	Farm Credit	
i	Crop Production, Maintenance and Marketing	25000.00
ii	Term Loan for agriculture and allied activities	24170.00
	Sub Total	49170.00
B	Agriculture Infrastructure	2900.00
C	Ancillary activities	1800.00
I	Credit Potential for Agriculture (A+B+C)	53870.00
II	Micro, Small and Medium Enterprises	210000.00
III	Export Credit	25000.00
IV	Education	21000.00
V	Housing	59800.00
VI	Renewable Energy	330.00
VII	Others	3800.00
VIII	Social Infrastructure involving bank credit	4000.00
	Total Priority Sector	377800.00

Broad Sector wise PLP projections - 2019-20

Appendix B to Annexure 1 - Summary of Sector / Sub-sector wise PLP projections – 2019-20

(₹ lakh)

Sr. No	Particulars	PLP Projections 2019-20
I	Credit Potential for Agriculture	
A	Farm Credit	
i	Crop Production, Maintenance and Marketing	25000.00
ii	Water Resources	1900.00
iii	Farm Mechanisation	2300.00
iv	Plantation and Horticulture (including sericulture)	4500.00
v	Forestry and Waste Land Development	90.00
vi	Animal Husbandry – Dairy	6400.00
vii	Animal Husbandry – Poultry	400.00
viii	Animal Husbandry – Sheep, Goat, Piggery, etc.	280.00
ix	Fisheries (Marine, Inland, Brackish water)	2300.00
x	Others – Bullock, Bullock cart, etc.	6000.00
	Sub Total	49170.00
B	Agriculture Infrastructure	
i	Construction of storage facilities (Warehouses, Market yards, Godowns, Silos, Cold storage units/ Cold storage chains)	500.00
ii	Land development, Soil conservation, Watershed development	2000.00
iii	Others (Tissue culture, Agri bio-technology, Seed production, Bio pesticides/ fertilizers, Vermin composting)	400.00
	Sub Total	2900.00
C	Ancillary activities	
i	Food and Agro processing	1600.00
ii	Others (Loans to Cooperative Societies of farmers for disposing of their produce, Agri Clinics/ Agri Business Centres, Loans to PACS / FSS/ LAMPS, Loans to MFIs for on lending)	200.00
	Sub Total	1800.00
	Total Agriculture	53870.00
II	Micro, Small and Medium Enterprises	
i.	MSME – Working capital	63231.00
ii.	MSME – Investment credit	146769.00
	Total MSME	210000.00
III	Export Credit	25000.00
IV	Education	21000.00
V	Housing	59800.00
VI	Renewable Energy	330.00
VII	Social Infrastructure involving bank credit	4000.00
VIII	Others (Loans to SHGs/ JLGs, loans to distressed persons to prepay non-institutional lenders, PMJDY, loans to state sponsored organisations for SC/ST)	3800.00
	Total Priority Sector	377800.00

District - North Goa		State - Goa						
1. PHYSICAL & ADMINISTRATIVE FEATURES		2. SOIL & CLIMATE						
Total Geographical Area (Sq.km)	1463	Agro-climatic Zone	Western Plain and Ghat region, Coastal region					
No. of Sub Divisions	3	Climate	Warm & humid					
No. of Blocks	5	Soil Type	Sandy & Red loamy, Coastal Alluvium, Laterite					
No. of Villages (Inhabited)	156							
No. of Panchayats	102							
3. LAND UTILISATION [Ha]		4. RAINFALL & GROUND WATER						
Total Area Reported	142206	Rainfall [in mm]	Normal	Actual	2013-14	2014-15	2015-16	
Forest Land	31911		3473	3498	3514	2593		
Area Not Available for Cultivation	18120		Variation from Normal	25	41	-80		
Permanent Pasture and Grazing Land	386	Availability of Ground Water [Ha]	Net annual recharge	Net annual draft	Balance			
Land under Miscellaneous Tree Crops	221		7801.52	2546.64	3254.88			
Cultivable Wasteland	16436	5. DISTRIBUTION OF LAND HOLDING (Statistical Handbook, 2011-12 [DPS])						
Current Fallow	9867	Classification of Holding	Holding		Area			
Other Fallow	0		Nos.	% to Total	Ha.	% to Total		
Net Sown Area	65267	<= 1 Ha	36520	79.58	17326	33.72		
Total or Gross Cropped Area	76893	>1 to <=2 Ha	4994	10.88	8885	17.26		
Area Cultivated More than Once	11426	>2 Ha	4377	9.54	25184	49.02		
Cropping Intensity [GCA/NSA]	118	Total	45891	100.00	51375.00	100.00		
6. WORKERS PROFILE [in '000]		7. DEMOGRAPHIC PROFILE [in '000]						
Cultivators	12.63	Category	Total	Male	Female	Rural	Urban	
Of the above, Small/Marginal Farmers	NA	Population	818	418	400	325	493	
Agricultural Labourers	13.28	Scheduled Caste	18	9	9	8	10	
Workers engaged in Household industries	7.31	Scheduled Tribe	57	28	29	28	29	
Workers engaged in Allied Agro-activities	NA	Literate %	89	94	84	NA	NA	
Other workers	227.29	BPL Families	5	NA	NA	NA	NA	
8. HOUSEHOLDS [in '000]		9. HOUSEHOLD AMENITIES [Nos. in '000 Households]						
Total Households	153	Having brick/stone/concrete houses	148	Having electricity supply	149			
Rural Households	71	Having source of drinking water	131	Having independent toilets	120			
BPL Households	5	Having access to banking services	133	Having radio/tv sets	125			
10. VILLAGE-LEVEL INFRASTRUCTURE [Nos]		11. INFRASTRUCTURE RELATING TO HEALTH & SANITATION [Nos]						
Villages Electrified	166	Anganwadis	1262 (State)	Dispensaries (Govt)	16			
Villages having Agriculture Power Supply	na	Primary Health Centres	11	Hospitals	Govt. 13 + Pvt. 54			
Villages having Post Offices	130	Primary Health Sub-Centres	105	Hospital Beds	3223			
Villages having Banking Facilities	151	12. INFRASTRUCTURE & SUPPORT SERVICES FOR AGRICULTURE						
Villages having Primary Schools	151	Fertiliser/Seed/Pesticide Outlets [Nos]	98	Agriculture Pumpssets [Nos]	887			
Villages having Primary & Sub Health Centres	109	Total N/P/K Consumption [MT]#	1597	Pumpssets Energised [Nos]	887			
Villages having Potable Water Supply	163	Certified Seeds Supplied [MT]	2	Agro Service Centres [Nos]	Govt. 3			
Villages connected with Paved Approach Roads	162	Pesticides Consumed [MT]	30	Soil Testing Centres [Nos]	1			
13. IRRIGATION COVERAGE [Ha]		Agriculture Tractors [Nos] (incl mini tractors)	132	Plantation nurseries [Nos]	120 (8 Govt)			
Total Area Available for Irrigation (NIA + Fallow)	31584	Power Tillers [Nos]	1051	Farmers' Clubs [Nos]	65			
Irrigation Potential Created	18731	Threshers/Cutters [Nos]	2216	Krushi Vigyan Kendras [Nos]	1			
Net Irrigated Area [Total area irrigated at least once]	19078	14. INFRASTRUCTURE FOR STORAGE, TRANSPORT & MARKETING						
Area irrigated by Canals / Channels	892	Rural/Urban Mandi/Haat [Nos]	5 mkt yards	Wholesale Market [Nos]	5			
Area irrigated by Wells	4094	Length of Pucca Road [Km]	1193	Godown [Nos]	5 (Govt.)			
Area irrigated by Tanks	11952	Length of Railway Line [Km]	NA	Godown Capacity [MT]	3650			
Area irrigated by Other Sources	1121	Public Transport Vehicle [Nos]##	114719	Cold Storage [Nos]	17			
Irrigation Potential Utilized (Gross Irrigated Area)	21064	Goods Transport Vehicle [Nos]##	949180	Cold Store Capacity [MT]	4974			
15. AGRO-PROCESSING UNITS		16. AREA, PRODUCTION & YIELD OF MAJOR CROPS						
Type of Processing Activity	No of units	Cap. [MT]	Crop	2016-17		2017-18		Avg. Yield [Kg/Ha]
Food [Rice/Flour/Dal/Oil/Tea/Coffee]	235	NA		Area (Ha)	Prod. (MT)	Area (Ha)	Prod. (MT)	
Sugarcane [Gur/Khandani/Sugar]	1	150000	Paddy	17327	73917	16135	68914	4271
Fruit [Pulp/Juice/Fruit drink]	1	NA	Other cereals/pulses	4556	4865	5872	7345	1291
Spices [Masala Powders/Pastes]	26	NA	Cashew nut	57608	18438	37087	18471	498
Dry-fruit [Cashew/Almond/Raisins]	30	NA	Oil Palm	322	790	326	656	2012
Cotton [Ginning/Spinning/Weaving]	4	NA	Mango	1009	3014	1041	1968	1890
Milk [Chilling/Cooling/Processing]	4	NA	Other Garden crops	1679	17707	1698	17213	10157
Meat [Chicken/Mutton/Pork/Dryfish]	0	NA	Coconut	8954	451 (Lakh nuts)	9201	462 (Lakh nuts)	
Animal feed [Cattle/Poultry/Fishmeal]	2	NA	17. ANIMAL POPULATION AS PER CENSUS 2012 [Nos]					
Category of animal	Total	Male	Female	18. INFRASTRUCTURE FOR DEVELOPMENT OF ALLIED ACTIVITIES				
Cattle - Cross bred	9564	858	8706	Veterinary Hospitals/Dispensaries [Nos]	14	Animal Markets [Nos]	1	
Cattle - Indigenous	20458	6845	13613	Disease Diagnostic Centres [Nos]	1	Milk Collection Centres [Nos]	111	
Buffaloes	18973	3967	15006	Artificial Insemination Centers [Nos]	34	Fishermen Societies [Nos]	11	
Sheep - Cross bred	5871	NA	NA	Animal Breeding Farms [Nos]	1	Fish seed farms [Nos]	1	
Sheep - Indigenous		NA	NA	Animal Husbandry Trg Centres [Nos]	1	Fish Markets [Nos]	NA	
Goat	5629	NA	NA	Dairy Cooperative Societies [Nos]	87	Poultry hatcheries [Nos]	1	
Pig - Cross bred	19059	NA	NA	Improved Fodder Farms [Nos]	NA	Slaughter houses [Nos]	0	
Pig - Indigenous		NA	NA	19. MILK, FISH, EGG PRODUCTION & THEIR PER CAPITA AVAILABILITY (Goa State)				
Horse/Donkey/Camel	4	NA	NA	Fish Production [MT]	112868	Per cap avail. [gm/day]	21	
Poultry - Cross bred	127583	NA	NA	Egg Production [Lakh Nos]	352	Per cap avail. [nos/p.a.]	10	
Poultry - Indigenous	59398	NA	NA	Milk Production [1000 litre]	54123	Per cap avail. [gm/day]	165	
				Meat Production [MT]	78	Per cap avail. [gm/day]	100	
Sources (if not mentioned against the respective item)	Item Nos. 1, 6 & 10 - Census 2011; Item No. 7 - Census 2011; Item Nos. 2, 3, 5, 12, 13 & 14 - Dept. of Agr./Dir. of Eco. & Stat.; Item No. 4 - Dept. of Agr./Water Resources; Item No. 8 - BPL Survey 2002; Item No. 16 - Dept. of Agr; Item No. 17 - AH Census 2012; Item Nos. 18 & 19 - Dir. of Animal Hus./Dir. of Eco. & Stat.							

District profile

North Goa District with a geographical area of 1463 sq. km accounts for 40% of the total geographical area of the State. North Goa District comprises of 05 talukas with 03 sub – divisions. Panaji, the capital of Goa, houses the Head Quarters of North Goa District, headed by the District Collector. The inhabited villages in the District are 166. There is 01 Zilla Panchayat and 102 Village Panchayats in North Goa, a Panchayat comprising of one village or a group of villages.

The climate is warm and humid. The District receives rainfall from the South-West monsoon during June-September ranging from 3000 to 3400 mm. The temperature ranges from 17°C to 40°C. Around 53% of the District area is covered by forest. Mandovi, Tiracol, Sal and Chapora are the major rivers in the district. Tillari Irrigation Project with Culturable Command Area of 14521 Ha is the major irrigation project in the District. The soil is sandy, red loamy, coastal alluvium and laterite.

As per Census 2011, the district had a total population of about 8.18 lakh (56% of the total population of the state). The sex ratio is 973 per 1000 males and literacy rate is 88.7%.

Agriculture is the third major occupation in North Goa behind Tourism and Mining. The major food / plantation crops of the District are Paddy, Pulses, Vegetables, Sugarcane, Coconut, Cashew, Arecanut and Mango. Cashew liquor industry is unique to Goa. It is the only State where the cashew apple is commercially used for distilling liquor, popularly known as “Feni.”, for which Geographical Indicator (GI) status has been accorded. The local Goan varieties of Mango viz. Mancurad fetches high price in the local market. Besides, there are a number of minor fruits like kokum, jackfruit, pineapple, jamun, etc., which are grown in Goa, though not on a commercial scale.

There are around 32129 land holdings of which 88% are cultivated by Marginal and Small farmers. The average land holding size is 1.17 Ha. It is estimated that there are 16,000 cultivators and 13,000 agricultural labourers in the District. Of the total reported area of 218905 Ha, the Net Sown Area in the District is 63864 Ha (29%). The area sown more than once is 11200 Ha. The Cropping Intensity of North Goa District is thus 118%. Of the total Net Sown Area, 25% of area is under irrigation.

North Goa has attained fame for its historical temples, churches, forts and world famous beaches. The district is well connected by road, rail and air. Besides, rivers are used for transportation, especially mineral ores from the mining sites in interiors of the District. National Highways 4A and 17 pass through the District. The Konkan Railway passes through the District.

The predominant economic activities of the district are mining, tourism, farming and fisheries. The District is endowed with rich natural resources like forests and navigable rivers. Bicholim and Sattari blocks are rich in iron ore deposits. Dairy as an economic activity is picking up in the District.

The Industrial Scenario is also well developed in the District with over 1000 registered Micro, Small and Medium Enterprises (MSME). There are nine Industrial Estates in the district, the prominent ones being Thivim and Corlim Industrial Estates.

Banking Profile

District - North Goa	State - Goa	Lead Bank - State Bank of India
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1. NETWORK & OUTREACH (As on 31/03/2018)

Agency	No. of Banks/Soc.	No. of Branches				No. of non-formal agencies associated			Per Branch Outreach	
		Total	Rural	Semi-urban	Urban	mFis/mFCOs	SHGs/ILGs	BCs/BFs	Villages	Households
Commercial Banks	37	310	142	168	0	0	NA	5	0.54	494
State Coop. Bank	1	35	19	16	0	0	NA	NA	4.76	4371
Primary Agr. Coop. Society	28	28	28	0	0	0	NA	NA	5.93	5464
Others (Urban Coop. Banks)	15	54	12	42	0	0	NA	NA	3.67	2833
All Agencies	81	427	201	226	0	0	NA	NA	0.39	358

2. DEPOSITS OUTSTANDING

Agency	No. of accounts					Amount of Deposit (Rs.'000)				
	31 Mar 16	31 Mar 17	31 Mar 18	Growth(%)	Share(%)	31 Mar 16	31 Mar 17	31 Mar 18	Growth(%)	Share(%)
Commercial Banks	1270989	1308182	1438000	9.09	69.25	312376015	319133069	338308894	6.02	91.70
Cooperative Banks	139525	159285	167249	4.76	8.05	7205834	8245278	8437916	2.34	2.29
Others (UCBs)	592901	410255	471783	13.64	22.70	20442517	21291831	22563900	4.10	6.01
All Agencies	1803415	1877722	2078043	9.64	100	340024386	348550178	368910710	5.81	100

3. LOANS & ADVANCES OUTSTANDING

Agency	No. of accounts					Amount of Loan (Rs.'000)				
	31 Mar 16	31 Mar 17	31 Mar 18	Growth(%)	Share(%)	31 Mar 16	31 Mar 17	31 Mar 18	Growth(%)	Share(%)
Commercial Banks	114865	170263	201440	-4.16	84.37	97419876	88476455	105059565	49.04	83.07
Cooperative Banks	16936	17096	16897	39.76	7.58	6017208	6102352	7121176	37.05	5.63
Others(ucb)	25254	26765	20422	2.43	8.55	10449795	10386809	14291759	14.31	11.30
All Agencies	157055	214124	238759	1.70	100	113886879	104965616	126476500	43.74	100

4. CD-RATIO

Agency	CD Ratio		
	31 Mar 16	31 Mar 17	31 Mar 18
Commercial Banks	31.19	27.73	31.05
Cooperative Banks	83.50	74.01	84.42
Others(ucb)	51.13	48.78	64.49
All Agencies	33.49	30.11	34.28

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

Agency	During 2016-17		Cumulative	
	Deposit	Credit	Deposit	Credit
Commercial Banks	37183	55398.00	1308182	170263
Cooperative Banks	15760	160.00	159285	17096
Others	17354	1511.00	410255	26765
All Agencies	74297	57069	1877722	214124

6. PERFORMANCE TO FULFILL NATIONAL GOALS (As on 31/03/2018)

Agency	Priority Sector Loans		Loans to Agr. Sector		Loans to Weaker Sections		Loans under DRI Scheme		Loans to Women	
	Amount [Rs.'000]	% of Total Loans	Amount [Rs.'000]	% of Total Loans	Amount [Rs.'000]	% of Total Loans	Amount [Rs.'000]	% of Total Loans	Amount [Rs.'000]	% of Total Loans
Commercial Banks	37882420	87	3923579	90	4048396	87	2400	100	14705099	95
Cooperative Banks	3091775	7	432143	10	0	0	0	0	536295	3
Others	2740205	6	6578	0	589904	13	0	0	306006	2
All Agencies	43714400	100	4362300	100	4638200	100	2400	100	15547400	100

7. AGENCY-WISE PERFORMANCE UNDER ANNUAL CREDIT PLANS

Agency	2015-16			2016-17			2017-18			Average Ach[%] in last 3 years
	Target [Rs.'000]	Ach'ment [Rs.'000]	Ach'ment (%)	Target [Rs.'000]	Ach'ment [Rs.'000]	Ach'ment (%)	Target [Rs.'000]	Ach'ment [Rs.'000]	Ach'ment (%)	
Commercial Banks	18049592	19126918	106	24442800	21903700	90	30263839	25829010	85	92
Cooperative Banks	2436686	1620662	7	65637	14400	22	2946170	2127145	72	69
Others	3132635	2291892	10	6045103	23043	0	2059891	1206777	59	31
All Agencies	23618913	23039472	98	30553540	22816400	75	35269900	29162952	83	84

8. SECTOR-WISE PERFORMANCE UNDER ANNUAL CREDIT PLANS

Broad Sector	2015-16			2016-17			2017-18			Average Ach[%] in last 3 years
	Target [Rs.'000]	Ach'ment [Rs.'000]	Ach'ment (%)	Target [Rs.'000]	Ach'ment [Rs.'000]	Ach'ment (%)	Target [Rs.'000]	Ach'ment [Rs.'000]	Ach'ment (%)	
Crop Loan	2231688	1644598	74	2010900	1697900	84	2248302	1290800	57	71
Term Loan (Agr)	2055249	1228156	60	2301500	2052100	91	2862860	2475700	86	80
Total Agri. Credit	4286937	2872754	67	4311500	3790000	88	5111162	3766500	74	76
MSME	3663623	3102677	139	15796000	15257900	97	19702518	18692700	95	100
Other Priority Sector	15666353	15064041	96	10448040	3768500	36	10456234	6703800	64	70
Total Priority Sector	23618913	23039472	98	30553540	22816400	75	35269914	29163000	83	84

9. RECOVERY POSITION

Agency	As on 30.06.2016			As on 30.06.2017			As on 30.06.2018			Average Rec. [%] in last 3 years
	Demand [Rs.'000]	Recovery [Rs.'000]	Recovery (%)	Demand [Rs.'000]	Recovery [Rs.'000]	Recovery (%)	Demand [Rs.'000]	Recovery [Rs.'000]	Recovery (%)	
Commercial Banks	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cooperative Banks	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Others(ucb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
All Agencies	0	0	NA	0	0	NA	0	0	NA	NA

Sources: Lead Bank & SBC

Banking Profile

North Goa District has a very good banking network with a total of 37 Commercial Banks, 01 State Cooperative Bank and 15 Urban Cooperative Banks. There are 310 bank branches of Commercial Banks; 142 in rural areas and 168 in semi urban areas. The Goa State Cooperative Bank, with its two tier structure, has 35 branches; 19 in rural areas and 16 in semi-urban areas. The UCBs have 54 branches; 12 in rural areas and 42 in semi-urban areas. There are 28 PACS in the district. There are no Regional Rural Bank and Land Development Bank in the district.

The Lead bank of the district is State Bank of India. As per the Census 2011, 86% of the households have access to banking services. India Post Payments Bank has commenced its operations in the district with a branch at Panaji and 06 access points (post offices) as its outlet for delivery of financial services. The State of Goa is 100% financially included.

The total deposits with the banking system as on 31 March 2018 in North Goa are ₹ 36891 crore. Around 90% of the deposits are mobilized by Commercial Banks. The total advances in the District were ₹ 12648 crore. The CD ratio of the district as on 31 March 2018 was 34% which is a cause of concern. Commercial banks are the major purveyors of credit with a share of over 80% of the total loans outstanding in the district. Huge amounts of deposits, NRI remittances and high per capita income are the main reasons, for both, the vast banking network and low loan offtake.

The total credit disbursed under priority sector during 2017-18 was ₹ 2916 crore against the Annual Credit Plan (ACP) target of ₹ 3527 crore, an achievement of 83%. The performance under priority sector category is 35 % of the total advances. Of the total achievement, MSME sector was the single largest contributor with 64%, ₹ 1869 crore. The credit flow to agriculture sector was ₹ 377 crore. Land title issues, declining interest in agriculture and inability to offer land as collateral are reasons for low credit offtake in Agriculture.

As on 31 March 2018, 3218 loans under 'Shishu' category, 1892 loans under 'Kishore' category and 424 loans under 'Tarun' category were sanctioned. The total loan amount disbursed under MUDRA scheme in North Goa was ₹ 91 crore. As on 31 August 2018, 141 applications were sanctioned and 109 disbursed under Stand up India.

As on 30 June 2018, there were 3071 Self Help Groups (SHGs) in North Goa linked to the banking system with total deposits of ₹ 7.54 crore. Of these, 874 were credit linked with a loan outstanding of ₹ 6 crore. As on 30 June 2018, there were 1231 Joint Liability Groups (JLGs) in North Goa with a loan outstanding of ₹ 11.47 crore.

With the rollout of the new SLBC web portal, the system of submitting Lead Bank Returns (LBRs) have been discontinued by banks. The controlling offices of banks upload data directly on the SLBC website. Owing to this, the subsector-wise data on credit flow for Farm Credit, Agriculture Infrastructure and Ancillary Activities under Agriculture is not available for the year 2017-18.

As per Revised Lead Bank Scheme guidelines issued by RBI, banks have to make a provision for direct extraction of priority sector data from their Core Banking Solution system.

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

- 1) 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.
- 2) To enable optimum utilization of scarce financial resources (specifically bank credit) by channelling the same into sectors with growth potential.
- 3) To assess the gaps in infrastructure support which need to be taken care for exploiting the potentials and prioritize resource requirement for the purpose.

Methodology

NABARD, in 1988-89, took initiative of preparing PLPs for agriculture and rural development. The broad strategy followed by NABARD for 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 (SLUCC) 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 Farmer / Marginal Farmer 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;

Sr. No.	Sector	Methodology of estimation of credit potential
		<ul style="list-style-type: none"> • Study the cropping pattern • 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 Mechanization	<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, combine 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 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 Exploitable 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

Following important announcements have been made in Union Budget 2018-19 for agriculture and farmers' welfare:

- Agriculture production in the country during the year 2016-17 achieved a record food grain production of around 275 million tonnes and around 300 million tonnes of fruits and vegetables.
- For the year 2018-19, the target set for agriculture credit is Rs.11 lakh crore.
- An Agri-Market Infrastructure Fund with a corpus of Rs.2000 crore will be set up for developing and upgrading agricultural marketing infrastructure in the 22000 Grameen Agricultural Markets and 585 APMCs.
- GoI will be setting up a Fisheries and Aquaculture Infrastructure Development Fund for fisheries sector and an Animal Husbandry Infrastructure Development Fund for financing infrastructure requirement of animal husbandry sector. Total Corpus of these two new Funds would be Rs.10,000 crore.
- Government has decided to keep Minimum Support Price for the all unannounced crops of kharif at least at one and half times of their production cost.
- Organic farming by Farmer Producer Organizations (FPOs) and Village Producers' Organizations (VPOs) in large clusters, preferably of 1000 hectares each, will be encouraged. Women Self Help Groups (SHGs) will also be encouraged to take up organic agriculture in clusters under National Rural Livelihood Programme.
- "Operation Greens" shall promote FPOs, agri-logistics, processing facilities and professional management.
- To realize the agri-export potential, export of agri-commodities will be liberalized. Government will also set up state-of-the-art testing facilities in all the forty-two Mega Food Parks.
- GoI will launch a Re-structured National Bamboo Mission with an outlay of Rs.1290 crore to promote bamboo sector in a holistic manner.
- GoI has now allowed hundred per cent deduction to the companies registered as Farmer Producer Companies and having annual turnover up to Rs.100 crores in respect of their profit derived from such activities for a period of five years from financial year 2018-19.
- Under Prime Minister Awas Scheme (Rural), 51 lakh houses in year 2017-18 and 51 lakh houses during 2018-19 which is more than one crore houses will be constructed exclusively in rural areas.
- Ground water irrigation scheme under Prime Minister Krishi Sinchai Yojna- Har Khet ko Pani will be taken up in 96 deprived irrigation districts where less than 30% of the land holdings get assured irrigation presently.

(For detailed paper visit <https://www.nabard.org/plp-guide.aspx?id=698&cid=698>)

1.2 Policy Initiatives – Reserve Bank of India

The following major initiatives have been taken by RBI:

- Compendium of Guidelines on Financial Inclusion and Development issued to all Small Finance Banks vide circular dated July 6, 2017.
- National Rural Livelihoods Mission (DAY-NRLM) - Aajeevika - Interest Subvention Scheme addressed to all Public and Private Sector Banks vide circular dated October 18, 2017.
- Action Points for SLBC Convenor Banks/ Lead Bank addressed to all Lead Banks vide circular dated April 6, 2018 so that Lead Banks go the extra mile to provide facilities over and above the bare minimum to these critical field functionaries.
- Action Points for SLBC Convenor Banks/ Lead Bank addressed to all Lead Banks vide circular dated April 6, 2018 to focus on policy issues.

- Revised guidelines on lending to Priority Sector for Primary (Urban) Co-operative Banks issued, vide circular dated May 10, 2018.
- Instructions issued vide circular dated June 6, 2018 to all banks and NBFCs regulated by the Reserve Bank of India to temporarily allow banks and NBFCs to classify their exposure, as per the 180 days past due criterion, to all MSMEs, including those not registered under GST, as a 'standard' asset, subject to the certain conditions.
- Circular dated June 19, 2018 issued to all Scheduled Commercial Banks (Excluding Regional Rural Banks and Small Finance Banks) prescribing eligibility criteria of housing loans for classification under priority sector.
- Master Circular – Lead Bank Scheme - Issued to all the SLBC Convenor Banks/Lead Banks vide circular dated July 02, 2018.
- Master Circular- Credit Facilities to Minority Communities addressed to All Scheduled Commercial Banks & Small Finance Banks (Excluding RRBs and Foreign banks with less than 20 branches) issued vide circular dated July 02, 2018.
- Master Circular on SHG-Bank Linkage Programme issued to all Scheduled Commercial Banks - Issued vide circular dated July 02, 2018.
- Master Circular - Kisan Credit Card (KCC) Scheme - Issued to All Scheduled Commercial Banks (including Small Finance Banks and excluding RRBs) vide circular dated July 4, 2018. The scheme provides broad guidelines to banks for operationalizing the KCC scheme. Implementing banks will have the discretion to adopt the same to suit institution/location specific requirements.

(For detailed paper visit <https://www.nabard.org/plp-guide.aspx?id=698&cid=698>)

1.3 Policy Initiatives - NABARD

1.3.1 Long-Term Refinance

To ensure increased and uninterrupted credit flow to farmers, as also to give a boost to capital formation in agriculture sector NABARD provides refinance to the cooperative banks and RRBs out of Long Term Rural Credit Fund, at a reasonable rate of interest. An amount of Rs. 15,000 crore has been allocated for the year 2018-19.

1.3.2 Short-Term Refinance

Short Term Cooperative Rural Credit - STCRC (Refinance) Fund has been set up in NABARD to provide Short Term refinance to Cooperatives for their crop loan lending. The allocation for the year 2018-19 is Rs.45,000 crore.

Short Term RRB (Refinance) Fund has been set up in NABARD to provide Short Term refinance to RRBs for their crop loan lending. The allocation for the year 2018-19 is Rs.10,000 crore.

1.3.3 Rural Infrastructure Development Fund (RIDF)

The corpus under RIDF is announced every year by GoI/RBI and for the year 2018-19, a corpus of Rs. 28,000 crore has been allocated.

1.3.4 Long-Term Irrigation Fund (LTIF)

The Long-Term Irrigation Fund (LTIF) set up in NABARD with an initial corpus of Rs.20,000 crore for funding 99 irrigation projects during 2016-17 following announcement in the Union Budget, was further supplemented with additional allocation of Rs.20,000 crore in 2017-18 and Rs.15,000 crore in 2018-19.

In addition to the 99 projects, two more projects namely Polavaram National Project from Andhra Pradesh and North Koel Reservoir Project from Bihar and Jharkhand were included for funding under LTIF.

1.3.5 Dairy Processing and Infrastructure Development Fund (DIDF)

In the Union Budget 2017-18, Government of India announced creation of Dairy Processing and Infrastructure Development Fund (DIDF) with a total corpus of Rs.8000 crore over a

period of 3 years (2017-18 to 2019-20). The Operational Guidelines were issued by GoI on 21 December 2017.

1.3.6 Digitization of SHGs under EShakti project

The project is in operation in 100 districts spread over 22 States and one UT as on 31 March 2018 and is expected to digitise 4.5 lakh SHGs benefiting around 54 lakh rural poor. As on 31 March 2018, a total of 3,49,432 SHGs were digitized involving 38,36,014 members across the country.

1.3.7 Financial Inclusion

A Financial Inclusion Fund (FIF) has been set up in NABARD with a view to take up developmental and promotional interventions to secure greater financial inclusion and support suitable technology and innovations. Many new initiatives are taken under the Fund.

- Supporting Banks for obtaining Membership of Authentication User Agency (AUA) / KYC User Agency (KUA) facilities of UIDAI and setting up infrastructure.
- Support for deployment of mobile signal booster in grey areas SSAs in lieu of VSAT sanctioned earlier.
- BHIM Aadhaar Merchant Incentive Scheme
- BHIM Cash Back Scheme for Individuals
- Dual Authentication at BC points for SHG transactions
- Support to RCB's for on-boarding Public Financial Management System" (PFMS): - Guidelines have been issued to RCBs extending support under FIF for on-boarding PFMS platform.
- Deployment of 20 lakh BHIM Aadhaar Pay Devices
- Aadhaar Enrolment and Update Centres
- Support for on-boarding to BHIM UPI Platform to RRBs and RCBs to provide better services while making banking transactions.

1.3.8 Climate Change

- ✓ Adaptation Fund - NABARD was reaccredited as the National Implementing Entity (NIE) by the Adaptation Fund under UNCCC, the reaccreditation would be valid up to December 2022.
- ✓ Green Climate Fund - India's first Private sector facility proposal "Line of credit for Solar Rooftop Segment for commercial, industrial and residential housing sectors" with an outlay of USD 250 million and GCF loan of USD 100 million was sanctioned. One project on 'Ground Water Resurgence and Solar Pumping System to ensure food security and enhance resilience in vulnerable tribal areas of Odisha" with outlay of USD 34.357 million was sanctioned.
- ✓ National Adaptation Fund for Climate Change - During 2017-18 the National Steering Committee on Climate Change (NSCCC) of MoEFCC accorded sanction to 06 projects including one regional project on "Crop Residue Management" developed by NABARD covering Punjab, Haryana, Rajasthan and Uttar Pradesh to address the crop residue burning and co sequential negative impacts. In order to make available information on projects being implemented, NABGREEN was developed as portal linked to the website of NABARD.

1.3.9 Farm Sector Policy - improvements

- ✓ National Level Farmers' Consultative Group was instituted during 2017-18 as a forum for interaction with farmers at the national level. First meeting of the NLFCCG was held on 09 February 2018 with participation of farmer members from 20 states.
- ✓ A consultation workshop with Commodity Boards was organized to facilitate coordinated efforts towards enhancing income of farmers.
- ✓ In order to facilitate revival of millets especially as part of climate resilient agriculture for dry lands action research projects was initiated in the states of Karnataka and Madhya Pradesh.

- ✓ Krishak Sarathi portal for digitisation of Farmers' clubs was initiated to facilitate development of a database of farmers, aid in monitoring activities of the Farmers' clubs and ensure their sustainability in the long run. Over 23,000 Farmers' Clubs have been digitized during the year.
- ✓ Krishak Samriddhi- an income enhancement initiative - Five action research projects on enhancing income of farmers were initiated in five states viz. Gujarat, Haryana, Odisha, Bihar and Assam.

1.3.10 Off Farm Sector Initiatives

- ✓ The corpus of Gramya Vikas Nidhi has since been enhanced to Rs.40 crore during the year 2017-18.
- ✓ NABARD took the initiative of providing financial assistance and other need based support in establishment of 'new' Agri Business Incubation Centres (ABICs) in Government Agriculture Universities/Government Agriculture Colleges across India.
- ✓ With a view to generating fresh ideas for invigorating the handloom sector, NABARD held a "National Seminar on Handloom" at Head Office in Mumbai on 19 January 2018.

(For detailed paper visit <https://www.nabard.org/plp-guide.aspx?id=698&cid=698>)

1.4 Government of India Sponsored Programmes with Bank Credit

The Administrative approval conveying the continuation of the following subsidy schemes for 2018-19 has been received from GoI:

- Agri Clinics and Agri Business Centres Scheme
- Dairy Entrepreneurship Development Scheme
- National Livestock Mission
- Stand Up India Scheme

(For detailed paper visit <https://www.nabard.org/plp-guide.aspx?id=698&cid=698>)

1.5 Sustainable Agricultural Practices

1.5.1. Sustainable Agriculture – Meaning and Key Principles: Sustainable agriculture is the production of food, fibre or other plant or animal products using farming techniques that protect the environment, public health, human communities and animal welfare. In other words, Sustainable agriculture can be understood as an ecosystem approach to agriculture. The most important factors for agriculture farm are sun, air, soil, nutrients, and water. The water and soil quality and quantity are most amenable to human intervention through time and labour. Sustainable agriculture means those farming practices which are sustainable for longer time period for identified location and developed by understanding of ecosystem services, relationships between organisms and their environment.

1.5.2. Sustainable Agriculture Practices

- ❖ Improvement in soil fertility through crop residue management, green manuring, crop rotation and mixed cropping
- ❖ Adoption of Integrated Farming System (Dairy + Crop Production + Horticulture, etc.) for efficient use of natural resources
- ❖ Adoption of water management practices as per water availability and increase in output productivity on per unit basis.
- ❖ Adoption of Sustainable agricultural practices such as conservation agriculture (zero tillage), crop rotation, mixed cropping, mulching, etc.
- ❖ Adoption of Integrated Nutrient & Pest management

(For detailed paper visit <https://www.nabard.org/plp-guide.aspx?id=698&cid=698>)

1.6 Policy Initiatives – State Government

Following important announcements have been made in State Government Budget 2018-19 to promote Agriculture and Entrepreneurship:

1	Doubling of farmer's income by 2022	<ul style="list-style-type: none"> Wastelands use by way of cooperative farming. Branding of Goan agricultural produce as BIG – Born in Goa. Establishment of Floriculture estate Focus of Dairy sector
2	Food parks	Establish food parks in the State as part of Start-up Programme.
3	Schemes for development of Fisheries sector	<ul style="list-style-type: none"> Various aquaculture schemes Scheme to purchase insulated truck of minimum 10 tonne capacity under which, subsidy assistance of upto 40% of unit cost limited to ₹ 8 lakh – general category and 60%; maximum ₹ 12.00 lakh per truck will be provided to SC / ST / Women & their cooperatives Compulsory coverage of all fishermen under <i>Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)</i>
4	<i>Nital Goem, Nital Baim</i> Scheme	To help promote conjunctive use of water and also maintain the ground water structures in the State by individuals and group of individuals by extending grant in aid in the form of subsidy
5	Sewerage Schemes	<ul style="list-style-type: none"> Implementation of the Master Sewerage Plan for Goa Commitment to make Goa “Open Defecation Free State” by 19 December 2019 by providing bio-digester toilets to uncovered households in all villages of the State
6	Education sector	<ul style="list-style-type: none"> Establishment of Educational Complexes Upgradations of various School Infra
7	Promotion of Entrepreneurship and Industries	<ul style="list-style-type: none"> Providing soft loans to young entrepreneurs to take up new projects under the Chief Ministers Rozgar Yojana (CMRY) Simplification of registration process for new units – online Udyog Aadhar Memorandum (UAM) Speedier approval of good projects by the Goa Investment Promotion Board
8	Rural Drinking Water Supply Schemes	<ul style="list-style-type: none"> To provide 24x7 quality drinking water to all households as part of the Sustainable Development Goals. Improvement of the water supply network across Goa is also being undertaken.
9	Establishment of Solid Waste Management Facilities across Goa	<ul style="list-style-type: none"> Expansion of Saligao treatment facility Establishment of new facilities at Cacora Proposed Biomedical Waste Treatment Plant at Kundaim

(For detailed paper visit <https://www.nabard.org/plp-guide.aspx?id=698&cid=698>)

1.7 State Government Sponsored Programmes with Bank Credit

The Goa State Government is implementing various subsidy schemes in the field of Agriculture, Animal Husbandry & Vet. Sciences and Fisheries.

1. Kamdhenu Scheme Sudharit

Unit cost – ₹ 70,000/- per animal

Subsidy on the cost of animal is as under:

No. of animals	Category			
	General		SC / ST / Dhangar	
	Amount (₹)	Subsidy %	Amount (₹)	Subsidy %
1 to 5 (Grade A)	56000	80%	63000	90%
6 to 10 (Grade B)	56000	80%	63000	90%
11 to 20 (Grade C)	35000	50%	52500	75%
21 & above (Grade D)	28000	40%	35000	50%

Subsidy for unemployed youth (any category) - 90% up to purchase of 10 animals.

Reimbursement of transportation cost @ ₹ 1500/- per animal for purchase made outside Goa & ₹ 600/- per animal for purchase in Goa or actual cost of transportation, whichever is less.

Reimbursement of insurance premium – Max ₹ 9600/- per animal

Animals purchased under the scheme should be insured for minimum period of a 3½ years under the Comprehensive Insurance Policy. Loan also should continue for 3½ years.

2. Infrastructure Component of Kamdhenu Scheme (Sudharit)

Under this scheme, 80% of the cattle shed construction cost with an area of 5.4 sq. m per animal and the construction cost @ ₹ 6000/- per sq. m is subsidised as under:

No. of animals	Shed Area per Milch Animal 5.4 sq. m	Cattle shed cost @ Rs. 6000/- per sq. m	Subsidy @ 80%
Unit of 10 Milch Animals	54 sq. m	3,24,000/-	2,59,200/-
Unit of 20 Milch Animals	108 sq. m	6,48,000/-	5,18,400/-

This Infrastructure Component is linked to Kamdhenu Scheme (Sudharit). Release of subsidy is linked to number of Milch Animals purchased, min. 50% of unit strength @ Rs. 25,920/- per animal is released under this component. Infrastructure subsidy shall be released after purchase of animals.

Bank loan is compulsory.

3. Chief Minister Rozgar Yojana (CMRY)

Nodal Agency – Economic Development Corporation (EDC) of Goa Ltd.

Activities - All economically viable activities except those dealing in alcohol & tobacco

Project Cost	Max. ₹ 25.00 lakh, including 50% share capital under DITC scheme (80% for SC/ST) for an individual with professional degree / diploma / I.T.I., including those undergoing special training programmes conducted by authorized Government Departments / Corporations. Max. ₹ 20.00 lakh, including 50% (80 % in case of SC/ST applicant) share capital under DITC scheme, for others.
Means of Finance	Min. 10% Margin (5% for woman/disabled/SC/ST/OBC) 50% interest free share capital under DITC Scheme 40% (15% for SC/ST) term loan under CMRY 5% Promoter's Contribution & 45% term loan in case of woman / disabled / OBC beneficiary.
Interest rate	8% p.a. for male and 6% p.a. for female beneficiary.
Subsidy	Amount = 20% of EMIs (which corresponds to approximately 25% of principal component of EMIs) paid towards Capital investment within due date, on the EDC TL & share capital under DITC Scheme, is credited to the loan account of the beneficiary, as subsidy.

(For detailed paper visit <https://www.nabard.org/plp-guide.aspx?id=698&cid=698>)

1.8 Sustainable Agriculture Practices in the State

1.8.1 Mitigation strategies for the State

Being a coastal State, Goa is extremely vulnerable to rise in Mean Sea Levels (MSL). Over a period of years this will lead to ingress of sea water, loss of habitations, freshwater sources and damage the mangrove and other coastal biodiversity. This rise together with extreme rainfall could flood coastal as well as inland Goa.

To protect against sea level rise, fish and crab culture in Mangrove areas are adaptation strategies. Climate Change Mitigation strategies like increasing the tree canopy area - replanting of senile cashew plantations, afforestation of mining affected areas, etc., can be done. Other mitigation strategies could include promotion of renewable sources of energy (solar panels and solar street lighting) and Green Highways Policy to develop a tree line along both sides of National / State Highways. The Smart City Mission, Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Swachh Bharat Mission are some other initiatives which will help mitigate the climate change induced stress.

1.8.2 Sustainable Agriculture Practices - Adaptation strategies for the State

Traditional sustainable agricultural practices followed in Goa

A. Farming in Khazan lands

The traditional Goan farmer used to practice integrated farming with the unique system of sluice gates in Khazan areas (areas affected by tidal ingress of saline water). The intricate regulation of sea water to adjust high and low tides made Pisciculture (fish and prawn farming) viable in Khazan lowlands in addition to Paddy farming with salt tolerant varieties like Korgut. Further Pisciculture, a highly remunerative activity, used to offset the cost of cultivation of Paddy.

B. Kulagars

Plantation crops like Coconut and Arecanut are grown as a mixed culture, Black Pepper is trailed on Areca Palms. Intercrops like Turmeric and Pineapple are grown to generate income in the short term.

C. Homestead Farming

A wide variety of fruit crops and vegetables are grown in the house backyard. Backyard poultry and 1-2 milch animals are also present.

1.8.3. Components of various integrated farming systems being followed in Goa

1. Crop Production - Paddy & Alsando are most common Cereal and Pulse crops of Goa. The leguminous crops fix atmospheric Nitrogen in soil. Dried stubble after harvest is used as cattle fodder.

2. Dairying - The most common form of integrated farming system followed in Goa. Dairy animals (cow of buffaloes) are reared in the farm. Cow dung is used for Biogas production and as manure. Dung slurry is used in vermicompost units. *Shwet Kapila*, a cow breed, found in Konkan region, is known for its milk properties.

3. Backyard Poultry - Poultry are reared in rural village conditions with minimum inputs and lower costs of production. Meat and eggs of such reared poultry birds fetch premium price in the market over the broiler egg and meat. Chicken droppings are used as an organic manure.

4. Piggery - Pigs are maintained in farms or households for meat purpose. Pigs are prolific breeders which grow on minimum inputs. They help to keep the surroundings clean and the meat is consumed in raw form as also as sausages.

5. Apiculture - Beekeeping is an activity which besides providing nutritious honey, also increases crop production as the bees are pollinating agents.

6. Pisciculture / Aquaculture - Besides rearing fish, ponds serve as a source of irrigation. Goa has many small / large water bodies which offer good scope for fish production.

7. Mushroom Cultivation - Button or Oyster mushroom can be produced year round, with available local material like paddy straw or Areca husk.

8. Biogas - Biogas, generated from cow dung or bio degradable material using anaerobic decomposition, is a clean and cheap source of energy. Biogas slurry is an enriched manure.

9. Vermicompost - Using earthworms to decompose the organic waste generated on farm can generate an additional stream of income for farmers as also reduce own farm fertilizer consumption.

10. Agro ecotourism / Farm Tourism - New concept being used by innovative farmers to bring in an additional income to his field and plantation crops. This concept blends together techniques of sustainable or traditional crop production along with adoption of modern scientific technologies to achieve diversification for greater economic returns for the farmer.

11. Small Ruminants Rearing - Rabbit and Goat rearing (Konkan Kanya breed developed by ICAR – Central Coastal Agrl. Research Institute - CCARI) are also gaining popularity as integrated farming components.

(For detailed paper visit <https://www.nabard.org/plp-guide.aspx?id=698&cid=698>)

1.9. Doubling of Farmers Income

The various measures suggested to increase the farmers' income are as under:

Crop production and Plantation & Horticulture activities

1. Adopting advanced and efficient methods of crop cultivation like System of Rice Intensification (SRI) and Sustainable Sugarcane Initiative (SSI).
2. Cultivation of Vegetables during second crop season taking advantage of residual moisture in the soil.
3. Adopting water saving irrigation methods like drip and sprinklers will reduce cultivation costs and land degradations due to flooding.
4. Using water storage structures for fisheries, wherever possible.
5. Fertigation through drip irrigation to save on labour cost.
6. Large scale mechanization will help in reducing cultivation costs by saving labour.
7. Growing Plantation & Horticulture crops in a more scientific manner with proper maintenance, especially Cashew, Mango, Coconut and Arecanut
8. Plantation & Horticulture crops offer scope for intercropping with crops like Turmeric and Pineapple, which again fetches additional revenue for the farmers.
9. Cultivation of exotic / premium vegetables in controlled environment / hydroponics (vertical cultivation).
10. Focus on primary processing or value addition in Fruits and Vegetables and grading at producer level will fetch higher returns for the farmer
11. Agro - Eco tourism projects in Goan Kulagars and plantations will supplement farmers' income.
12. Goan plantations are by default organic. If certified so, there is potential to market their produce as organic, thus increasing the revenue earned manifold.
13. Coverage of notified crops under PM *Fasal Bima Yojana* will reduce farmers risk to adverse weather conditions

Forestry activities

14. Promotion of forestry activities can supplement farmers' income.
15. Bringing wastelands under cultivation with appropriate land development & Soil Conservation measures will increase area under cultivation and boost farmers' income. Waste / fallow lands of farmers can be used for farm forestry, agro-forestry, horti-forestry activities.
16. Apiculture (Organic Honey) can be taken up in the hinterlands of forest areas with concurrence of Forest department. Apiculture can enhance farmer's income through honey production in addition to increasing the productivity of crops through pollination.

Animal Husbandry activities

17. Dairying can be undertaken as a supplementary activity in addition to crop farming. It offers steady flow of income to the farmers as the backward and forward linkages are fairly well established in the district.
18. Supplementary activities like Bio-Gas and vermicomposting further increases the farmer's income.
19. Encouraging fodder cultivation will reduce the cost of dairying.
20. Promotion of Backyard Poultry Farming (BPF) is one of the key components of the Prime Minister's scheme to augment the farmer's income. Local birds and their eggs fetch double the price than the commercial variety of poultry thus increasing the farmer's income. The manure produced by the local chicken has high fertilizer value and can be used for increasing yield of crops.
21. Sheep / goat / pig rearing can provide supplementary income to the farmers. They can be tried as a component of integrated farming system. They also provide easy liquidity to the farmers.

Fishery activities

22. Value addition of fish, ornamental fish breeding & rearing, aquaponics, processing of low value fish especially drying, salting / brining, improving quality of preservation methods has the potential to double income of fish farmers. Fish culture in water storage structures.

Other measures

23. Shift from Gold loans to KCCs and simplification of procedures to avail hassle free finance by Small and Marginal Farmers will reduce their interest servicing cost.
24. Setting up of adequate storage facilities will help in reduction of post-harvest losses and also help the farmers in timing the sale of their produce.
25. Adoption of integrated farming system models suitable for the district like crops + fodder + dairy / fisheries and soil test based balanced application of nutrients will increase yield of the crops.
26. Communal lands in Goa can also be brought under cultivation with suitable legal enactments.
27. Use of organic inputs will cut cost of production and enhance soil quality and its sustainability.
28. Development of processing capacity will reduce post-harvest wastage. Tie-ups of producers with agro industries will assure better income.

1.10. Sub-sector-wise suggested action points in the District

Sr. No.	Sub sector	Suggested action points
1	Crop Production	i. Govt. needs to consider issuing legally valid tenant cards to tenant cultivators so that they can have access to institutional finance. ii. Contract Farming Act which is on the anvil, needs to be enacted on a priority basis so that the fallow fertile lands are brought under cultivation. iii. Production and use of organic inputs needs to be encouraged. iv. Marketing linkages at village level are needed to link the producer directly to retail sale points. v. Krishi Card data needs to be uploaded on SLBC site so that Bankers have access to farmer database & to ensure that multiple financing is not done. vi. Instead of providing upfront 50 - 75% subsidy, the subsidy schemes <u>should be made back ended and linked to bank credit</u> to ensure proper end use with a minimum lock in period of 03 years. vii. Banks need to ensure maximum coverage of both loanee and non-loanee farmers under PMFBY viii. Provision of good quality seeds, setting up of seed banks. ix. Issue of Soil Health Cards to all farmers
2	Water resources	i. Strengthening of canals / channels and other structures ii. Rainwater harvesting needs to be popularised to recharge groundwater iii. Water Users Associations needs to be activated iv. Natural springs / rivers need to be desilted v. Micro irrigation systems (drip / sprinkler) for water conservation vi. Flood protection measures to check field inundation / salinity ingress vii. Efficient use of command area developed
3	Farm Mechanization	i. Proper sensitization and training to promote mechanization ii. Provision for spares & servicing centres and on farm training to users iii. Mechanization of operations in Plantation crops iv. Custom hiring of machinery through PACS as Multi Service Centre Mode v. Development of skilled local manpower for operating machinery
4	Plantation & Horticulture	i. Creation of a model horticulture farm in the District ii. Quality and timely supply of planting material to farmers iii. Branding and marketing of horticultural produce – Born in Goa (BIG) iv. Facilitation of organic certification for horticultural produce. v. Produce aggregation, value addition & marketing through FPOs vi. Inclusion of P&H crops under PMFBY needs to be done

		<p>vii. Rejuvenation of senile orchards especially Mango, Cashew or Coconut.</p> <p>viii. Subsidy schemes for innovative farming needs to be initiated to attract more youth into agriculture / horticulture</p> <p>ix. Support price for flowers grown in the State can be considered</p> <p>x. Block level cold storages for locally grown Fruits & Vegetables</p>
5	Forestry & Waste Land Development	<p>i. Private forest owners need to be encouraged to take up farm forestry</p> <p>ii. Streamlining procedures for felling / transportation of forest produce.</p> <p>iii. Bamboo cultivation needs to be promoted</p> <p>iv. Skill based trainings to local artisans in wood & bamboo products.</p> <p>v. Replanting of senile cashew plantations</p> <p>vi. Wastelands can be utilized for green fodder cultivation</p>
6	Animal Husbandry - Dairy	<p>i. Encourage production of green & dry fodder by bringing uncultivated lands under cultivation. Command area of Tillari Project can also be used.</p> <p>ii. Low cost hydroponic fodder cultivation units needs to be promoted</p> <p>iii. 24x7 veterinary care services (Veterinarians + Medicines) to be ensured</p> <p>iv. Scheme to maintain non milk yielding cows is needed</p> <p>v. Sudharit Kamdhenu Scheme beneficiaries have to be made aware of scheme details especially about the three and half years lock in period</p> <p>vi. Capacity building in clean milk production and good husbandry practices</p> <p>vii. Awareness programmes among bankers for financing dairy activities</p> <p>viii. <u>Effective implementation of NABARD ADS</u></p>
7	Animal Husbandry - Poultry	<p>i. Promotion of Back Yard Poultry Birds through women / SHGs.</p> <p>ii. Capacity building for rearing of commercial poultry birds.</p> <p>iii. Encourage setting up of local feed mixing units</p> <p>iv. Setting up of a hatchery in the District</p> <p>v. Credit Guarantee Fund / Subsidized Insurance can be considered</p> <p>vi. Automated poultry dressing units can be set up; production & marketing of value added products.</p> <p>vii. <u>Contract rearing – tie up with poultry suppliers like Saguna, Venkys</u></p>
8	Animal Husbandry – Sheep / Goat / Pig	<p>i. Modernization of slaughter houses for hygienic meat production & better utilization of byproducts</p> <p>ii. Farmers need to be educated on animal feed and disease management</p> <p>iii. Promotion of Goat / Sheep rearing in large plantations</p> <p>iv. Stall fed units for Goats / Sheep to be popularized</p>
9	Fisheries	<p>i. Promotion of Ornamental and Brackish water fisheries</p> <p>ii. Strengthening of jetty infrastructure</p> <p>iii. Cold stores & Ice Plants near jetties.</p> <p>iv. Hygienic fish markets may be established at all major towns.</p> <p>v. Govt. Hatcheries needs to be established to reduce dependence on other States for fish seed.</p> <p>vi. Land classification issues especially for shrimp farming have to be addressed.</p> <p>vii. Capacity building of fish / prawn farmers through demo plots and exposure visits.</p> <p>viii. Fisherwomen engaged in fish trading and retailing can be formed into JLGs and banks may extend financing to these groups</p> <p>ix. Hygienic handling of fish on board the vessel and in the landing centres is required to be inculcated</p> <p>x. Value addition of low value fish holds scope</p> <p>xi. Training and awareness creation on HACCP standards, branding and packaging</p> <p>xii. <u>Aquaponics and other innovative methods need to be popularized</u></p>
10	Farm Credit - Others	<p>i. As agriculture is dominated by SF/MF, there is a need for popularising cooperative farming.</p> <p>ii. Govt. needs to consider tenancy cards to tenant farmers. If land title is not clear, banks normally sanction fully secured gold loans.</p>
11	Agri Infra – Storage and marketing	<p>i. Integrated agro markets with cold stores are needed in all blocks.</p> <p>ii. Upgradation of infrastructure facilities in all existing market yards</p> <p>iii. Awareness needs to be created about pledge loans and Negotiable Warehouse Receipts (NWRs) among farmers</p> <p>iv. NABARD Rural Haat scheme can be utilized for developing basic infrastructure in rural markets</p>

		v. Encouraging private sector investment in the storage sector
12	Land Development, Soil Conservation and Watershed Development	<p>i. Awareness on Zero Budget Natural Farming, Production & Use of organic manures / biofertilizers and also integrated farming system needs to be conducted extensively</p> <p>ii. Comprehensive plan for rain water harvesting & management needed</p> <p>iii. Coastal areas need to be protected from salinity ingress through protection structures</p> <p>iv. Bund strengthening, desilting of ponds needs to be done regularly</p> <p>v. Creation of farm level water storage structures</p> <p>vi. Updation and computerization of land records of farmers</p>
13	Agriculture Infrastructure - Others	<p>i. Market linkage for quality seeds, bio pesticide and bio fertilizer need to be strengthened.</p> <p>ii. Production of organic manures, Vermicompost, Biocontrol agents by farmers needs to be encouraged through capacity building programme.</p> <p>iii. Infrastructure for organic certification needs to be established in Goa.</p>
14	Food and Agro Processing	<p>i. Development of activity specific cluster/s in the district by way of farmer collectives like FPOs.</p> <p>ii. Demonstration of latest post-harvest management techniques, equipment and technologies to the farmers.</p> <p>iii. Hub and spoke model in view of small land holdings in the State.</p> <p>iv. Setting up of a designated Food Park / Agro Export Zones in Goa</p> <p>v. Setting up of cold chain infrastructure.</p> <p>vi. Contract farming of crops (raw material) required by the food processing industries needs to be done through legislative enactments.</p> <p>vii. Capacity building and Hand Holding of the Agri-preneurs is required.</p> <p>viii. Awareness about the FSSAI / Statutory procedures / Food Standards / GST needs to be done for streamlined development of the industry.</p> <p>ix. Banks can extend collateral free loans to this sector, leveraging CGTMSE coverage</p> <p>x. Appropriate branding of Goan produce will help in marketing.</p>
15	Agriculture Ancillary Activities – Others	<p>i. Capacity building of PACS personnel should be given for improving their business acumen and capacity to identify new business avenues.</p> <p>ii. PACS have to develop themselves into Multi Service Centres providing wide array of services like custom hiring of equipment's, Hardware stores, Consumer Stores, etc. besides PDS.</p> <p>iii. PACS can also work as Banking Correspondent (BC) mode.</p>
16	MSME	<p>i. Self-sufficient Industrial Estates with 24x7 power, water supply</p> <p>ii. Measures have to be taken to modernize Industrial estates.</p> <p>iii. Re-allotment of vacant plots needs to be done</p> <p>iv. Skill training institutes that cater specifically to needs of the Industrial units need to be set up</p> <p>v. Effective implementation of <i>Pradhan Mantri Kaushal Vikas Yojana</i> (PMKVY)</p> <p>vi. Realistic time bound action plans to be drawn to revive and rehabilitate sick / closed industrial units through a mix of capacity building, credit and technology support.</p> <p>vii. DIC needs to identify activity specific clusters for focused attention and interventions</p> <p>viii. Traditional arts and craft to be developed with appropriate marketing link</p> <p>ix. GoI schemes like MUDRA and Stand Up India needs to be popularized</p> <p>x. Adequate publicity about facilities / incentives available under State Government's industrial policy.</p> <p>xi. Banks have to lend proactively to MSMEs taking advantage of CGTMSE</p>
17	Export Credit	<p>i. APEDA/FDA accredited labs needs to be set up in Goa.</p> <p>ii. Exporters can invest in contract farming which will benefit local farmers.</p> <p>iii. Exporters should avail export credit insurance extended by ECGC.</p> <p>iv. Availability of other infrastructure like grading and packing units, pre cooling and cold storages, etc. need to be ensured.</p> <p>v. Agriculture Department / APEDA / MPEDA may arrange sensitization workshops for agri-exporters to guide them about current export</p>

		regulations, policies of importing countries, price competitiveness, quality concerns, certifications required & Phytosanitary requirements.
18	Education	<ul style="list-style-type: none"> i. Banks especially their FLCs need to conduct awareness programme at start of academic season. ii. Educational institutions could be rated by banks, based on placement record, which would also help banks to decide on sanction of loans to students joining such institutions. iii. Awareness creation on Central Sector Interest Subsidy scheme. iv. Credit guarantee scheme for education loans could be considered
19	Housing	Single window system to clear the building plans is needed to minimize delays in getting approvals and licenses.
20	Renewable energy	<ul style="list-style-type: none"> i. Awareness about alternative sources of energy, its cost, user manual and after sales service has to be created. ii. As initial cost of solar equipment is high, there is a need to provide efficient & cost effective design solar equipment at affordable cost. iii. Incentives can be extended to residential / commercial complexes installing rooftop solar systems. iv. Dairy farmers may set bio-gas plants as integral part of their dairy unit. v. Solar panels on reservoirs / canals of Irrigation projects could be considered to produce power as also arrest the evaporation losses of water in the canals with RIDF assistance vi. Solar pumps needs to be promoted vii. Solar PV systems to supplement electrical power should be made mandatory for Govt. Departments
21	Social Infra	<ul style="list-style-type: none"> i. Strengthening of school infra - Pucca buildings, Toilets, additional floors. ii. Expanding outreach of existing rural drinking water schemes to cover all villages and improvement in existing water supply schemes by relaying of old pipelines to improve efficiency and prevent water leakage. iii. Construction of new health centres with modern facilities and improvement in facilities at existing centres. iv. Development of a well-knit sewerage network
22	Others	<ul style="list-style-type: none"> i. Convergence of efforts of the Govt. Dept. / NABARD / Banks in supporting the microfinance movement in Goa. ii. Banks to make efforts to credit link active SHGs under their fold. iii. Matured SHGs may be considered for higher dosages of credit. iv. Banks to implement JLG scheme in a project mode. v. Public awareness about PMJDY accounts usage has to be strengthened.

The State Government can utilize low cost funding available under RIDF for building up the required infrastructure. NABARD Infrastructure Development Assistance (NIDA) which offers longer repayment period (Off / on budget) can also be thought of to build the required infrastructure. NIDA can be availed through good working State owned corporations or under PPP mode.

Chapter 2: Credit Potential for Agriculture

Agriculture sector has three broad components, viz. Farm Credit, Agriculture Infrastructure and Ancillary Activities, with various subsectors, referred to in the following paragraphs.

2.1. Farm Credit

The loans under Farm credit includes individual farmers / SHGs / JLGs directly engaged in Agriculture and Allied Activities, and loans to corporate farmers, farmers' producer organizations/companies, partnership firms and co-operatives of farmers engaged in Agriculture and Allied Activities. The credit potential under various sub-sectors has been estimated in the following paragraphs.

Except for crop loans, the sub-sector-wise credit flow data is unavailable for the last three years for want of appropriate codes in the CBS of banks.

2.1.1. Crop Production, Maintenance and Marketing

2.1.1.1. Introduction

Paddy, Pulses, Groundnut and Sugarcane are the major crops cultivated in North Goa District. Vegetables like Ladyfinger, Red Amaranthus and different Cucurbits are taken in second crop season. Of the 76893 GCA in the District, 25356 Ha is under field crops. The area (in Ha), production (in MT) and productivity (in Kg/Ha) of the major field crops in the district (Kharif & Rabi) during the last three years is as under:

Crop	2015-16			2016-17			2017-18		
	Area	Prodn	Pdty.	Area	Prodn	Pdty.	Area	Prodn	Pdty.
Paddy	17554	73288	4175	17327	73917	4266	16135	68914	4271
Pulses & other field crops	7724	6797	840	4556	4865	1067	5872	7345	1251
Sugarcane	119	6068	50989	124	4581	36943	129	4703	36457
Vegetables	3277	37384	11408	3349	38856	11602	3456	40993	11861
	28674			25356			25592		

(Source: Dept. of Agriculture)

The area under Pulses and Vegetables has increased during 2017-18 as compared to the previous year. Area under Paddy has decreased considerably, though. The area under vegetables is increasing steadily over the years due to marketing support provided by the State Govt.

2.1.1.2. Credit flow in the past three years

The crop loan disbursements during the last three years were ₹ 16446 lakh during 2015-16, ₹ 16979 lakh during 2016-17 and ₹ 12909 lakh during 2017-18.

2.1.1.3. Assessment of Credit Potential for 2019-20

The credit potential for Crop Loans during 2019-20 has been assessed as under:

(₹ Lakh)					
Sr. No.	Activity	SoF	Unit	Fin. outlay	Bank Loan
1	Paddy	0.70	12500	8761.00	8761.00
2	Pulses / Oilseeds	0.39	2700	1063.00	1063.00
3	Sugarcane	1.58	160	252.00	252.00
4	Vegetables	0.97	1700	1642.00	1642.00
5	P&H Crop Maint. (Coconut/Cashew/Areca)	1.00	8268	7513.00	7513.00
A	Total		25328	19231.00	19231.00

Sr. No.	Activity	SoF	Unit	Fin. outlay	Bank Loan
B	Post-harvest / household / consumption requirements @10% of A			1923.00	1923.00
C	Repairs & Maintenance expenses of farm assets etc. @20% of A			3846.00	3846.00
	Total (A+B+C)			25000.00	25000.00

Block-wise & activity-wise potentials are given in **Annexure I**

2.1.1.4. Availability/Gaps in infrastructure and support services

Subsidy ranging from 50% to 75% is being provided by the State Government on almost all field operations and on purchase of seeds. For promoting SRI in paddy, cono weeders are provided free of cost and ₹ 1/sqm is provided as incentive. Hire charges of machinery are subsidized to the extent of 50% of the standard hire charges for specified number of hours. To revitalize Khazan lands, the State Govt. has a scheme, wherein cost of salinity resistant paddy (Korgut) seed is subsidized 100% and a one-time assistance of 50% subsidy on expenditure incurred on machinery.

Under Assured Support Price scheme, MSPs for Paddy, Sugarcane and Alsando are ₹ 20/kg, ₹ 3000/tonne and ₹ 70/kg respectively. The Goa State Horticultural Corporation Ltd. (GSHCL), procures vegetables produced by the farmer at a minimum prefixed rate and markets them through its outlets called '*Krishi Ghars*'. Seeds and planting material are supplied through the Zonal Agriculture Offices of the Department of Agriculture, Goa Bagayatdar and through Government farms at Old Goa, Mapusa, Pernem and Valpoi. There are 04 market sub yards at Sanquelim, Mapusa, Valpoi and Pernem.

Under Prime Ministers *Fasal Bima Yojana* (PMFBY), the crops notified by the State Govt. are Paddy, Pulses, Groundnut and Sugarcane and it is mandatory to cover all loanee farmers. For PMFBY, the Insurance Company identified for North Goa District is HDFC ERGO General Insurance Co. Ltd. The PMFBY cover penetration is low in the District and till date only about 142 farmers have been covered. The State Govt. scheme "*Shetkari Adhar Nidhi*" provides compensation to farmers who suffer losses due to natural calamities or due to destruction by wild animals.

The Interest Subvention Scheme (ISS) for 2018-19 has been notified by GoI under which Short Term Crop Loans upto ₹ 3 lakh are available to the farmers at 4% rate of interest upon prompt repayment. Govt. of Goa has been issuing Krishi Cards to farmers including lessee farmers. Soil Health Cards have also been issued to around 25000 farmers. Fragmented small land holding size and absence of proper land titles is the major constraints in banks financing crop cultivation. Use of organic inputs is low. Storage and value addition facilities are also inadequate.

2.1.2. Water Resources

2.1.2.1. Introduction

The District received good rainfall, with the annual average being about 3000 mm. However being situated in the Western Ghats Region with steep eastern mountain slopes, water moves westward and runs off to the rivers and into the Arabian Sea. As per the 2011 report of Dynamic Ground Water Resources of India, the net annual ground water availability of North Goa is at 8554 ham (30% ground water development) and all the blocks are in '**safe**' category.

The Anjunem Medium Irrigation Project catering to Keri, Morlem, Poriem and Karapur areas of Sattari and Bicholim blocks with a CCA of 2100 Ha is located in the District. The Amthane Minor Irrigation Project in Sattari block has a CCA of 160 Ha. The main Lift Irrigation Projects are in the basins of Mhadei and Valvonta Rivers in Sattari and Bicholim blocks. Total storage

capacity of 55 Million Cubic Meters (MCM) has been created by 3 dams, viz., Anjunem, Panchwadi and Amthane.

2.1.2.2. Assessment of Credit Potential for 2019-20

The physical and financial potential assessed for water resources during 2019-20 is as under:
(₹ Lakh)

Sr. No.	Activity	Unit size	UC	Phy. Units	Fin. outlay	Bank loan
1	Dug wells (dia 3m,depth 8-10m)	No.	1.89	450	851.00	638.00
2	Pumpsets -5HP, 3 phase, submersible	No.	0.31	500	156.00	117.00
3	Drip irrigation (Coconut)	Ha.	0.41	700	289.00	216.00
4	Drip irrigation (Banana)	Ha.	1.11	204	226.00	170.00
5	Sprinkler irrigation (Arecanut)	Ha.	0.55	280	155.00	116.00
6	Small LIS (pumpsets, pipes)	No.	1.47	300	440.00	330.00
7	Deepening of existing wells	No.	0.55	150	83.00	63.00
8	Misc. works (repairs, pipelines, etc.)			0	0.00	250.00
Total				2584	2200.00	1900.00

Detailed block-wise credit projections are given in **Annexure I**.
75% of TFO is considered as bank loan.

2.1.2.3. Availability/Gaps in infrastructure and support services

The Water Resources Department (WRD) provides 50% subsidy (max. ₹ 75,000) on the cost of construction of a dug well. The WRD also provides 50% subsidy for construction of roof top rain water harvesting structures of individuals, residential and commercial complexes. Under its "**Nital Baim Scheme**", WRD provides financial assistance of ₹ 50,000/- for repair / renovation of existing registered wells which are used for drinking / irrigation purpose. The Agriculture Department provides subsidy ranging from 50-75% for installation of micro irrigation systems like Drip and Sprinkler. Registration of wells and tankers in the State is being done under the Ground water Regulation Act, 2002. The draft Goa State Water Policy 2015 has been prepared and is in the final stages of approval. During 2017-18, under Prime Minister '*Krishi Sinchayji Yojana*' (PMKSY) - per drop more crop - 163 Ha area has been covered under micro irrigation structures benefitting 172 farmers.

With a view to ensure completion of incomplete projects under Accelerated Irrigation Benefits Programme (AIBP), Long Term Irrigation Fund (LTIF) with a corpus of ₹ 20000 crore for funding of central and state identified projects under PMKSY has been created in NABARD. Tillari Irrigation Project in North Goa District is identified for support under LTIF.

The State is implementing a scheme for post monsoon water harvesting for groundwater recharge through construction of a series of Bandharas across rivers and nallahs. These Bandharas build up cascading storages along the river helping build up ground water level in aquifers storage structures created by the Bandharas and also help to meet water requirement of the State through augmentation of water supplies to water treatment plants, especially during the lean season.

Solar pumps are not much used due to their high initial cost and easy availability of electrical power. Diesel pumps are used to a limited extent.

2.1.3. Farm Mechanization

2.1.3.1. Introduction

Despite the small holding size, use of farm machinery like tractors, power tillers, land levelers, weed cutters, sprayers and even combined harvesters is popular in Goa owing to issues of labour shortage, coupled with high labour costs. Attractive state government subsidy schemes on farm implements has also contributed to farm mechanization.

2.1.3.2. Assessment of Credit Potential for 2019-20

The credit potential assessed for Farm Mechanization during 2019-20 is as under:

(₹ Lakh)						
Sr. No.	Activity	Unit	UC	Phy. Units	Fin. outlay	Bank loan
1	Tractor (40-45 HP) with trolley	No.	7.40	30	222.00	167.00
2	Power tillers (8 HP and above)	No.	1.67	60	100.00	75.00
3	Paddy transplanters - 4 wheel self-	No.	12.10	5	61.00	45.00
4	Paddy transplanters- manual	No.	2.75	10	28.00	21.00
5	Combine harvesters	No.	25.85	3	78.00	58.00
6	Agri. Implement – sprayers	No.	0.06	500	28.00	21.00
7	Agri. implements – weeders	No.	0.44	500	220.00	164.00
8	Agri. implements - threshers	No.	0.41	500	204.00	153.00
9	Other Agri. Implements	No.	0.97	2198	2128.00	1596.00
Total				3806	3069.00	2300.00

Block-wise & activity-wise projections are given in **Annexure I**.

2.1.3.4. Availability/Gaps in infrastructure and support services

The State Government provides 50% subsidy to all category of farmers for purchase of new agricultural machinery like power tiller, tractor, mini tractor & mini tiller and 75% subsidy for all other equipment. For purchase of paddy combine harvester, 50% subsidy of standard cost or actual cost whichever is less is provided to NGOs, Societies, Farmer Clubs or SHG's. For mechanized Paddy Transplanting, subsidized amount of ₹ 15,000/- per ha (50% subsidy on Rs. 30,000/-) for individual & subsidy of ₹ 18,000/- per ha, (60% subsidy on Rs.30,000/-) for collective transplanting is provided.

The Govt. also provides 50% subsidy on custom hiring for tillage operations in Paddy, Pulses, Groundnut and Sugarcane. A onetime assistance of ₹ 15,000 per Ha or 50% cost, whichever is less is given for removing shrubs, bushes, weeds using power driven machines. There are about 24 Govt. owned tractors (35 HP and more) in the district. Besides, 53 mini tractors (<18 HP), 1051 power tillers, 55 tractors, 221 mini tillers operating in the State. 15 private owned combine harvesters are also operating in the District.

The factors limiting Farm Mechanization are undulating and inaccessible terrain – difficult to mechanize and the presence of only few commercial farms. In plantation crops, there is very low rate of mechanization. Further, as Credit linkage is not compulsory for availing subsidy, and as collateral is required for loans exceeding ₹ 1 lakh, institutional credit flow to farm mechanization is hampered to an extent.

2.1.4. Plantation and Horticulture

2.1.4.1. Introduction

The climatic conditions of Goa offer good scope for high value plantation crops, fruits & vegetables. Horticulture crops occupy > 60% of total cropped area in Goa. Floriculture & Mushroom cultivation as commercial activities are also catching up. Medicinal and Aromatic Plants like *Stevia*, *Aswagandha* are encouraged for cultivation by Forest Department. The area under cultivation of Fruits, Vegetables, Spices and their production in North Goa during the last three years is as under:

Sr. No	Name of the Crop	2015-16			2016-17			2017-18		
		Area Ha	Prodn. (MT)	Avg. yield (kg/ha)	Area Ha	Prodn. (MT)	Avg. yield (kg/ha)	Area Ha	Prodn. (MT)	Avg. yield (kg/ha)
1	Cashewnut	37355	16660	446	37603	16433	437	37087	18470	498
2	Arecanut	480	794	1654	514	897	1746	526	945	1797
3	Pepper	274	88	320	251	92	336	259	106	409
4	Tree Spices	51	2	30	62	4	57	74	4	54
5	Mango	977	1793	1835	1009	2014	1996	1041	1968	1890
6	Banana	1253	14153	11295	965	10930	11326	952	10577	11110
7	Pineapple	110	1824	16580	114	1879	16480	53	852	16075
8	Coconut *	8911	442	-	8954	451	-	9201	462	-
9	Oil palm	335	824	2460	322	790	2454	326	656	2012
10	Other garden crops	1650	17597	10665	1679	17707	10546	1698	17213	10137
11	Vegetables	3338	38080	11408	3349	38856	23264	3456	40993	11861
Total		54863			54946			54673		

*production in million nuts

Most of the horticultural production is organic by default due to low use of chemical fertilizers and pesticides. In Bardez and Sattari blocks, farmers live in houses surrounded by at least 1000 to 2000 sqm of land where Homestead farming is practiced. The production and productivity of most crops have remained static over the years. There is limited scope for expansion of the area. Being a tourist destination and a state with good living standards and purchasing power, horticulture products have a very good local market.

2.1.4.2. Assessment of Credit Potential for 2019-20

The credit potential assessed for Plantation & Horticulture during 2019-20 is as under:

(₹ Lakh)

Sr. No.	Activity	Unit	Unit Cost	Phy. Units	Fin. outlay	Bank loan
1	Cashew	Ha	1.42	280	398.00	298.00
2	Cashew rejuvenation	Ha	0.36	1300	465.00	349.00
3	Coconut	Ha	1.98	280	553.00	415.00
4	Coconut – Hybrid	Ha	2.58	210	541.00	406.00
5	Mango	Ha	1.80	407	733.00	550.00
6	Oilpalm	Ha	1.16	130	150.00	113.00
7	Arecanut	Ha	3.12	130	405.00	304.00
8	Spices (pepper in Arecanut)	Ha	1.21	152	184.00	138.00
9	Spices- nutmeg (sole crop)	No.	0.97	90	87.00	65.00
10	Polyhouse Vegetables 1000 sqm	No.	12.42	50	621.00	466.00
11	Vegetables (shadenet) 1000sqm	No.	4.19	70	293.00	220.00
12	Polyhouse (gerbera) 1000sqm	No.	9.39	32	300.00	225.00
13	Orchid – Shadenet with polyfilm		3.00	25	75.00	56.00
14	Others (kokum, cocoa, etc.)	No.	3.23	220	711.00	534.00
15	Nursery - planting material / ornamental plants	No.	3.64	45	164.00	123.00
16	Oyster mushroom	No.	2.43	25	61.00	45.00
17	Homestead farming - 1000sqm	No.	0.49	530	257.00	193.00
				3976	5998.00	4500.00

The block wise projections are given in **Annexure I**.

2.1.4.3. Availability/Gaps in infrastructure and support services

75% subsidy assistance is available for cultivation of Fruits and Spices like Mango, Cashew, Banana, Pineapple, Papaya, Kokum, Nutmeg, etc. The scheme to take up commercial cultivation of mango in cultivable fallow lands or in uncultivable rocky areas by adopting modern techniques is also being implemented by the State Government. 50% subsidy is available for rejuvenation / replacement of senile cashew plantations with a cap of ₹ 20,000 per Ha. Assistance is also available for cultivation of coconut – Tall and hybrid varieties.

Assured price scheme is available for Arecanut, Coconut, Cashewnut and Oil Palm. Further the GSHCL procures notified vegetables at pre-fixed rates assuring income to vegetable growers. Assistance for production of honey and promotion of traditional tribal occupations in a scientific manner is also available. For damage to plantation crops due to natural calamities or by wild animals, assistance upto ₹ 1.00 lakh per beneficiary is provided under *Shetkari Aadhar Nidhi*.

Planting material is procured by farmers from the Govt. farms, Goa Bagayatdar and from registered private nurseries. Commercial processing of coconut is limited to oil extraction and a few units are into desiccated coconut powder, toddy and vinegar. There is one Govt. run godown at Panaji of Goa State Horticulture Development Corporation (GSHDC) and two in private sector (Pernem and Mapusa).

Lack of availability of quality planting material, limited value addition, inadequate warehouse / cold storages, lack of awareness of latest technologies, etc. are the common gaps encountered in the promotion of P&H sector in the State. Scope for Banana has not been fully explored yet and could be promoted with marketing arrangements as it is a high value crop. There is good scope for value addition of minor fruits like Jackfruit and Kokum which otherwise are left to rot on the trees or fall to the ground. NABARD has sponsored 03 workshops on Kokum and Jackfruit Processing in association with the Goa Chamber of Commerce and Industry (GCCCI).

Area Development Scheme on Commercial Cashew Cultivation (1 Ha area)

NABARD has formulated Area Development Scheme (ADS) on Commercial Cashew Cultivation to be implemented in Pernem and Bicholim blocks of North Goa District. Stakeholder workshops for cashew growers and bankers are being conducted by NABARD to effectively ground the ADS in coordination with Zonal Agriculture Offices of Department of Agriculture and ATMA in the identified blocks.

A banking plan of ₹ 37.50 Lakh has been prepared for implementation in Pernem and Bicholim blocks during 2018-23. As part of the banking plan, targets have been allotted to individual bank branches in the identified blocks to lend to the Cashew sector.

2.1.5. Forestry and Wasteland Development

2.1.5.1. Introduction

The Goa forests form part of Western Ghats and has been internationally recognized as Biodiversity Hotspot of the world owing to its rich flora and fauna. As per the State Forest Report of Forest Survey of India, 53.17% (92300 ha) of the geographical area of North Goa (incl. Ponda block) is assessed under forest cover, predominantly in Sattari, Bardez and Bicholim blocks.

The primary forest species in the district are teak, eucalyptus, bamboo, casuarina, and plantation crops like cashew, rubber, etc., planted by the Govt. Timber / wood based produce originate from private forests.

As per the Wasteland Atlas of India, the total wasteland in the district is 27300 ha constituting 15.76% of the total geographical area (incl. Ponda). More than 50% of the wastelands are classified as land under open and dense scrub. 10% of the area is classified as underutilized degraded forest. These are open for exploitation by way of development of commercial forestry plantations, along with barren *comunidade* lands and lands categorized as private forests.

2.1.5.2. Assessment of Credit Potential for 2019-20

The credit potential for this sector during 2019-20 is assessed as under:

(₹ Lakh)						
Sr.No.	Activity	Unit size	UC	Phy. Units	Fin. outlay	Bank loan
1	Teak	Ha	0.70	20	14	11.00
2	Bamboo	Ha	0.79	20	16	12.00
3	Wasteland Devt.	Ha	1.00	90	90	67.00
				130	120.00	90.00

Block-wise and activity-wise projections are given in **Annexure I**.

2.1.5.4. Availability/Gaps in infrastructure and support services

Goa Forest Development Corporation manages (GFDC) 4031 ha of cashew plantations at Morlem, Sattari in forest lands. The right to collect cashew is auctioned to individuals annually and to SHGs for five year period. There are nurseries in the district supplying seedlings to individuals and Corporations for planting and most of them are situated in Sattari and Pernem blocks. The supply from the nurseries is adequate for afforestation, gap filling in forests, etc.

The Forest Department implements developmental programmes like rehabilitation of degraded forests, afforestation of denuded lands under Govt./private/community ownerships, maintenance of nurseries, soil conservation measures, promotion of medicinal plants, etc. Under National Bamboo Mission, a Bamboo Mission Society has been formed and two nurseries have been established. The effects of climate change is observed in the district in the form of changes in rainfall pattern, extreme day temperature levels. This could have an adverse effect on the flora and fauna of the forests.

The Govt. has constituted a Biodiversity Board to look into various aspects of conservation measures.

2.1.6. Animal Husbandry – Dairy

2.1.6.1. Introduction

The total demand of milk in the State is around 3.30 lakh litres per day, while the estimated production is 1.61 lakh litres per day. The shortage is met by importing from neighbouring states. The milk procurement by Goa Dairy per day is 64000 litres and supply from outside states per day is 18618 litres. Procurement per day by SUMUL is 2654 litres. Goa Dairy, a federal body of milk cooperative societies, has 87 Societies affiliated to it in North Goa and 09 milk routes for collection. SUMUL, a cooperative body from Gujarat, is also operating in the District.

Animal Husbandry activities are an integral component of Integrated Farming Systems. This sector provides self-employment opportunities to socio-economically backward strata of the society, small and marginal farmers and agricultural labourers. There is no specific breed of cattle/buffalo in the district. As per the livestock census 2012, the total livestock population of the district is 2,90,901 of which the bovine population is 48,995, details are as under:

Particulars	Cows		
	Male	Female	Total
Cross bred cattle	858	8706	9564
Indigenous cattle	6845	13613	20458
Buffalo	3967	15006	18973

2.1.6.2. Assessment of Credit Potential for 2019-20

The credit potential for Dairy sector during 2019-20 is assessed as under:

(₹ Lakh)

Sr. No.	Activity	Unit	UC	Phy. Units	Fin. outlay	Bank loan
1	CB Cows (2 animals unit)	No.	1.69	1858	3140.00	2355.00
2	Graded buffaloes (2 animals unit)	No.	1.69	450	761.00	571.00
3	Calf rearing (5 animal unit)	No.	3.17	750	2381.00	1785.00
4	Mini Dairy (10 animal unit)	No.	8.45	91	769.00	577.00
5	Community dairy (100 animals)	No.	115	10	1150.00	863.00
6	Misc. (Shed repair/extn.)	No.	0.29	1100	316.00	237.00
7	Fodder cultivation	Ha	0.33	50	17.00	12.00
	Total				8534.00	6400.00

Block-wise credit potentials are given in **Annexure I**.

2.1.6.3. Availability / Gaps in infrastructure and support services

The State Govt. is implementing 10 schemes for dairy development, viz., *Kamdhenu Scheme (Sudharit)*, revised modern dairy scheme, Scheme for Cattle Feed Subsidy, Scheme for Incentives to Milk Producers, Pashupalan Scheme, Green Fodder Scheme, Dairy Equipment Scheme, Infrastructure Devt. Scheme, Dairy Kit Scheme, Community Dairy Scheme and Stray Cattle Management Scheme. The State provides a milk incentive of ₹ 10 per litre of milk produced by the dairy farmers.

The Sudharit Kamdhenu Scheme is the most popular scheme (80-90% subsidy) and it is credit linked back ended scheme with a lock-in period of three and half years. During the year 2017-18, 1683 animals have been purchased and ₹ 889.63 lakh of subsidy has been released. Community Dairy Scheme is also picking up in the District. The Pashupalan Scheme offers 75% subsidy to General and 100% to SC / ST / Dhangar Community. Calf feed subsidy is given to farmers to rear female Cross Bred Cows and improve buffalo calves from 01 to 27 months.

Dairy Entrepreneurship Development Scheme (DEDS) of GoI with a 25% / 33.33% subsidy has not been found attractive due to comparatively low subsidy rates as compared to State Govt. Schemes. However, DEDS has several other components like establishment of dairy product transportation facilities, Vermicompost with milch animal unit, establishment of private veterinary clinics and setting up of dairy marketing outlets which are not covered under State schemes. These components can be provided bank loans.

Under the green fodder scheme of the state govt. subsidy for cultivation of green fodder in perennial areas is presently ₹ 30000/-, ₹ 20000/- and ₹ 15000/- for 1st, 2nd and 3rd year respectively. Incentives for irrigation for perennial fodder cultivation varies from ₹ 5500/- to ₹ 80000/- for 500 sq.mt to 10,000 sq.mt and above. The livestock farm is located at Copardem in Sattari Block.

The common issues noticed are acclimatization problems for imported animals, low milk yields, infertility and disease, perennial deficit of availability of cattle fodder. The cost of production of the feed mixing plant operated by Goa Dairy is high due to non-availability of

raw materials like maize and bajra, which if cultivated locally, could bring down the production cost.

Area Development Scheme on Dairy Milch Animals (02 animal unit)

NABARD has formulated Area Development Scheme (ADS) on Commercial Dairy unit to be implemented in Sattari and Bicholim blocks of North Goa District. Stakeholder workshops for dairy farmers and bankers are being conducted by NABARD to effectively ground the ADS in coordination with AH&VS Department and Dairy Cooperative Societies of the identified blocks.

A banking plan of ₹ 127.50 Lakh has been prepared for implementation in the Sattari and Bicholim blocks during 2018-23. As part of the banking plan, targets have been allotted to individual bank branches in the identified blocks to lend to the dairy sector.

2.1.7. Animal Husbandry – Poultry

2.1.7.1. Introduction

Goa being a tourist state, there is lot of demand for products such as eggs and meat. The demand for poultry products is 1.5 lakh broilers per week and only one third of it is met by local production. The per capita poultry consumption in Goa is 3 Kg meat and 80 eggs per annum. As per Livestock Census, 2012, there are 2,92,000 poultry birds (including backyard poultry, poultry farm birds, ducks, turkey) in Goa, of which 1,86,982 poultry birds are in North Goa.

2.1.7.2. Assessment of Credit Potential for 2019-20

The credit potential assessed for Poultry during 2019-20 is as under:

(₹ Lakh)

Sr. No.	Activity	Unit	UC	Phy. Units	Fin. outlay	Bank loan
1	Layer units- 2000 birds	No.	13.65	8	109.00	82.00
2	Broiler units - 1000 birds	No.	4.73	15	71.00	53.00
3	Backyard Poultry 100 birds	No.	0.25	788	199.00	149.00
4	Open cage transport vehicle	No.	10.50	5	53.00	39.00
5	Egg / broiler cart	No.	0.21	5	1.00	1.00
6	Misc. – Hatchery / feed mill	No.	25.20	4	101.00	76.00
				825	534.00	400.00

The details of block-wise and activity-wise projections are given in **Annexure I**.

2.1.7.3. Availability/Gaps in infrastructure and support services

The Department of AH&VS, Government of Goa is operating 03 schemes in the Poultry Sector – Setting up of Poultry 500 Broilers / 1000 layers, Transport of Poultry feed and Modern Poultry farm. Quality poultry feed is unavailable in the State and the feed transport subsidy @ ₹ 200 per MT is available to the registered poultry farmers for transportation of readymade poultry feed from outside the State. Backyard Poultry units are also supported under the SC / ST special component plans under Pashupalan Scheme of the Department. There are 02 Poultry Coop. Societies in the State.

The number of poultry units in the State have been going down as local units are unable to compete with pricing of birds brought from neighboring States mainly due to high feed cost, labour and unfavourable climate - humid weather and high rainfall are not conducive to the growth of birds and they are susceptible diseases. Back yard poultry is slowly getting a presence in the State as a household activity as both meat and eggs have local preference and fetch better sale price.

Purchasing feed from outside the State increases production costs and reduces the poultry farmers' market competitiveness. A shift from commercial poultry to backyard poultry farming is likely, as animal welfare activists have challenged the caged farming concept on ethical grounds and sheer cruelty to animals. Rural backyard poultry is gaining ground in the State. The backyard poultry birds are preferred as eggs and meat from birds reared under free range conditions have low cholesterol concentration and fetch better sale price for the farmers.

2.1.8. Animal Husbandry – Sheep, Goat and Piggery

The demand for Mutton / Pork is high in Goa due to local food preference as well as due to the high floating population of domestic and international tourists. The Livestock Census, 2012, indicates that there are about 5871 goats, 1280 cross bred pigs and 17779 indigenous pigs in the district. Goat rearing is a scattered non-commercial activity. Pig rearing units can be seen only in Bardez taluk as a traditional household activity. There are no local breeds of goat. Rearing of sheep in the district is negligible.

2.1.8.2. Assessment of Credit potential for 2019-20

(₹ Lakh)						
Sr. No.	Activity	Unit	UC	Phy. Units	Fin. outlay	Bank loan
1	Pig rearing (3+1 unit) + shed	No.	4.73	36	169.00	127.00
2	Goat Rearing (18+2 unit) + shed	No.	2.63	19	50.00	37.00
3	Misc. (Shed repair, extn, etc.)	No.	3.15	49	154.00	116.00
				104	373.00	280.00

Block-wise credit projections are given in **Annexure I**.

2.1.8.3. Availability/Gaps in infrastructure and support services

The State Govt. is providing assistance for Piggery Development – Rearing and Fattening of the pigs. The maximum subsidy admissible is 25%. Construction of shed to accommodate animals, bio-gas, utensils and sausage making machine are also included in the Scheme. Piglets of large White Yorkshire breed are available at Govt. farm at Ponda. ICAR – CCARI is promoting piggery especially Agonda Pig and Goaterly - Konkan Kanyal breed of Goat which is adaptable in coastal states.

North Goa does not have slaughter house and animals are sent to the Goa Meat Complex at Usgaon, Ponda in South Goa. Appropriate policy changes are required for setting up block level private slaughter units. Meat processing is limited to processing of pork into sausages, which has a good demand among locals. One of the major problems encountered by piggery farmers is the difficulty in obtaining No Objection Certificates (NOC) from the Panchayats and Health Dept.

2.1.9. Fisheries

2.1.9.1. Introduction:

The State of Goa is blessed with marine, inland and brackish water resources. Fishing is one of the major economic livelihood in the State and fish is the staple diet of a major section of the population of Goa. There are three fishing taluks in the district viz., Tiswadi, Bardez and Pernem. The Stripped Grey Mullet (Shevto) - *Mugil cephalus* is declared as the State Fish of Goa. During the year 2017, the marine fish production of 1,44,282 tonnes and inland fish production of 5,332 tonnes was achieved. Generally, 15% of the fish catch is exported earning valuable foreign exchange.

The coast line of Goa is stretching to 104 km and 40% of the coastline is in North Goa. The continental shelf is 10,000 sq. km in area. The total fishermen population of Goa is about 30,225 (Marine Fisheries Census of CMFRI, 2010) of which 36 % are located in North Goa. The active fisher folks in Goa are estimated to be 2370 with 775 located in North Goa and 1481 engaged in fish marketing, majority being women. North Goa accounts for 40% of the marine

catch. The State has 3300 Ha of water spread area of fresh water bodies which includes Anjunem Dam reservoir in North Goa

2.1.9.2. Assessment of Credit Potential for 2019-20

The credit potential assessed for fisheries sector during 2019-20 is as under:

(₹ Lakh)

Sr. No.	Activity	Unit size	UC	Phy. Units	Fin. outlay	Bank loan
1	Wooden trawler replacement *	No.	57.75	30	1733.00	1298.00
2	Mechanization of canoes OBM	No.	1.65	70	116.00	87.00
3	Fiber Boats (motorized) replacement	No.	2.31	77	178.00	133.00
4	Repair & WC of vessels			202	169.00	127.00
5	GPS, fish finder, search beacon	No.	1.54	230	354.00	470.00
6	Misc. Equip.	No.		0	107.00	80.00
7	Freshwater Fish Culture		5.83	7	41.00	31.00
8	Ornamental fish culture	Ha	3.30	10	33.00	25.00
9	Mussel culture	No.	0.44	5	2.00	2.00
10	Mud crab culture	Area	8.25	3	25.00	19.00
11	Brackish prawn culture	No.	12.32	3	37.00	28.00
				637	2795.00	2300.00

* (along with engine + power block).

Activity-wise block-wise projections are available in **Annexure I**.

2.1.9.4. Availability/Gaps in infrastructure and support services

North Goa has 02 major, 04 medium and 09 minor landing jetties, major ones being Malim on Mandovi River and one on Chapora River. Ramps and net mending facilities are also constructed for the benefit of traditional fishing crafts at various places. There are 1517 motorized canoes, 968 non-motorized canoes and 1090 trawlers are operating in Goan waters. 80% of the traditional fishermen have canoes fitted with Out Board Motors. Traditional sector contributes around 26% of the catch.

The mechanized sector is in full operation from August to September, November to December and March to May. Purse seining is more intense in August and September. Almost 40% of the mechanized trawlers are equipped with GPS and fish finders. 25% of the mechanized fleet venture into off shore areas for 4-5 days. Online Registration facility for fishing vessels under Merchant Shipping Act (MS Act) is available. There are 7721 registered fishing gears in Goa. Sea Gill net and Trawl net are the major gears used along the coast. Stake net, cast net are also being used in the inland water bodies. One of the traditional fishing gear used in Goa is the beach seine, locally known as *Rampon* and is more prevalent during monsoon season. Rest of the seasons gill nets of varying mesh sizes are being used to catch target varieties.

The Fisheries Department with NFDB assistance, has provided 05 mobile fish stalls which is being operated through SHGs / Fisheries societies. The department also operates a full-fledged Control room which issues weather advisories and monitors fishing operations. Around 9181 RFID cards have been issued to the fishermen. The fishing ban period of 61 days from 01 June to 31 July is being uniformly followed along the western coast.

As Maximum Sustainable Yield level (MSY) estimated at 85,407 Tonnes has been reached in Goa, fresh licenses are not being issued for new trawlers. Only replacement of existing mechanized boats (trawlers) is permitted by the Govt. and purchase of fishing trawlers up to 36 feet in length and 7 feet in width only are encouraged. Traditional fishing vessels are being permitted up to 5 km from the shore. The State Government has banned use of LED lights for fishing to safeguard the livelihood of traditional Goan fishermen. The State Govt. has restricted mesh size of fishing nets to 24 mm and above for catching fish and 20 mm and above for catching prawns, as per Marine Fishing Regulation Act, 1980, for conservation of resources. The State Government is also implementing various schemes under Blue Revolution "Integrated Development and Management of Fisheries".

The Fisheries Dept. is operating 23 subsidy schemes which provide benefits for fishing activities like purchase of OBM, Canoes, Gill Nets, kerosene, construction of fish market, Supply of Insulated Boxes, Purchase of power Blocks, Construction and Renovation of Farm ponds, Reimbursement of VAT on H.S.D. oil, Purchase of Safety Jackets and Life Buoys for the Fishing Vessels, etc. Infrastructure works like Repair of Existing Net Mending Shed, Construction of Fishing Ramp, Reconstruction / Repair / Maintenance of existing fishing jetties, etc. are taken up for the benefit of the fishing community.

The district has 2,000 Ha marshy and khazan land which is suitable for shrimp farming within the provisions of the Brackish Water Fish Farming Regulation Act, 1991. Fish culture is done in *Khazan* lands from September to April in estuaries. Prawn larvae migrate into *Khazan* lands during monsoons, while the paddy is harvested in October, fish/prawn is allowed to grow upto April / May at the end of which, fish crop is harvested. The mangroves along the backwater areas of Chodan, Mayem and Pilgao villages in Bicholim block have potential for crab farming.

2.1.10. Farm Credit – others

2.1.10.1. Introduction

Other allied agricultural activities comprise of bullocks, bullock-carts, miscellaneous agricultural implements and vehicles for farm use and transportation of farm produce. Fully secured gold loans extended for agricultural purposes, loans given to farmers for pre-payment of non-institutional loans and loans extended to farmers for procuring 2-wheelers to commute between home, farm and market also fall under this category. According to the livestock census 2012, there are 3582 animals used for draught purpose in the district. Gold loans for agriculture purpose with repayment period of more than 12 months are also being shown under this head.

2.1.10.2. Assessment of Credit Potential for 2019-20

The credit potential for this sector is assessed as under:

(₹ Lakh)						
Sr. No.	Activity	Unit size	UC	Phy Units	Fin. outlay	Bank loan
1	Draught Animals	No.	0.83	41	34.00	25.00
2	Farm Vehicles	No.	7.35	68	500.00	375.00
3	Other Agri Loans			0	7466.00	5600.00
	Total			109	8000.00	6000.00

Block-wise credit potentials are given in **Annexure I**

2.1.10.3. Availability of infrastructure, critical gaps & interventions required

Draught animals are used only in areas where farm machinery cannot be operated. Scope for potential increase in this activity is not anticipated.

2.2. Agriculture Infrastructure

2.2.1. Construction of Storage & Marketing Infrastructure

2.2.1.1. Introduction

The post-harvest losses of agricultural produce can be addressed by creating storage infrastructure facilities like warehouses, market yards, godowns, silos and cold storage units. There are five warehouses of total capacity 3650 MT under FCI in North Goa located at Panaji, Pernem, Bicholim, Valpoi and Mapusa. Some private godowns store raw cashew nuts for

processing purpose and others store fertilizers, paddy for milling, coconut copra for oil extraction, etc. As Goa does not have any major marketable surpluses in agri commodities, major demand for storage facilities arises on account of the need to store the produce brought from other States for consumption. The Goa State Agricultural Marketing Board (GSAMB) has established 4 sub-markets at Sanquelim, Mapusa, Valpoi and Pernem.

2.2.1.2. Assessment of Credit Potential for 2019-20

The credit potential for storage godowns and market yards during 2019-20 is assessed as under:

(₹ Lakh)

Sr. No.	Activity	Unit size	UC	Phy. Units	Fin. outlay	Bank loan
1	Cold storages (1000 MT)	No.	66.15	2	131.00	98.00
2	Market yards	No.	242.55	2	485.00	364.00
3	Godowns (100 MT)	No.	3.86	4	15.00	12.00
4	Small milk chilling units (1000 litres)	No.	5.79	6	35.00	26.00
	Total			18	666.00	500.00

Block-wise credit potentials are given in **Annexure I**.

2.2.1.3. Availability/Gaps in infrastructure and support services

There is a need for upgradation of the infrastructure facilities in all the market yards. The market yards set up are quite old (established in the 70s and 80s) and have not been upgraded since. The State Marketing Board has plans to establish market yard at Banastarim in Tiswadi block. There is demand for cold storage facilities at the taluka level for storing the Fruits and Vegetables for a short period to enable them reach markets in a streamlined fashion. Establishing e-trading facilities will help in linking the local markets to national markets.

Private godowns are owned by rice millers, cashew industries or oil millers for storing their raw materials. There is a large scale private cold storage of 3600 MT capacity in Pernem, which takes care of dairy and agro products that are brought from Maharashtra.

Coconut (Copra), Arecanut and Cashew are the major agricultural products that are brought to the market yards / stored for marketing purpose. Goa State Horticulture Corporation Ltd. (GHSCCL) has plans to set up post-harvest infrastructure at Thivim. State Govt. provides 50% loan and 50% grant for construction of godown-cum-office building by registered cooperative societies.

2.2.2. Land Development, Soil Conservation and Watershed Development

2.2.2.1. Introduction

The production, productivity and sustainability of agriculture depends on the land, soil and water resources. Land development includes land levelling, bunding, drainage, water harvesting, soil and water conservation, soil fertility restoration, etc.

The soils in Goa are lateritic and acidic in nature and generally require gypsum treatment. Land levelling and soil conservation measures are needed on the eastern (mountainous) side and regular bunding, repairs and maintenance along the coast. There are around 10000 Ha of Khazan lands, protected by nearly 250 embankments of around 225 Km which need regular maintenance.

2.2.2.2. Assessment of Credit Potential for 2019-20

Taking into account the infrastructure available, planned and gaps, the potential for Land Development is assessed as under:

(₹ Lakh)

Sr. No.	Activity	Unit size	UC	Phy. Units	Fin. outlay	Bank loan
1	Land levelling and Off Farm Development	Ha	0.91	2300	2087.00	1565.00
2	Reclamation	Ha	0.30	500	151.00	114.00
3	Water storage ponds	No.	0.75	50	38.00	28.00
4	Farm fencing	Ha	0.60	650	390.00	293.00
	Total			3500	2666.00	2000.00

Block-wise projections are given in **Annexure-I**.

2.2.2.3. Availability/Gaps in infrastructure and support services

In order to protect Khazan lands, the State Government has a scheme for repairs and maintenance of bunds, sluice gates and embankments. Further, to revitalize Khazan lands, the State Govt. gives 100% subsidy assistance for purchase of saline resistant paddy (Korgut) seeds. A one-time assistance of 50% subsidy on expenditure incurred on machinery hire is provided for bringing fallow lands under agriculture. Under PMKSY, the govt. provides subsidy for desilting & renovation of water bodies like ponds, tanks, etc. (100% subsidy as per GSR or maximum of ₹ 70,000/- per ha.) and for Soil Conservation (50% subsidy of the actual cost of the work as per GSR).

Soil testing for NPK and micronutrients is done free of cost at Soil Testing Laboratories at Old Goa. ICAR has developed a web based portal / app for getting instant fertilizer recommendation based on soil test report. The State Government issues Soil Health Cards to farmers having Krishi Cards. These farmers can get 75% subsidy assistance (max. ₹ 6000/Ha) for purchase of Soil Conditioners like Rock Phosphate, Agricultural Lime and Dolomite besides Micronutrients like Zinc and Boron. Subsidy assistance from GoI through NABARD is available under Agri Clinic and Agri Business Centres (ACABC) scheme for setting up of agri clinics in the State, to supplement the agri extension needs and also to aide self-employment among agri graduates.

Water Storage structures called **Jalkunds** - artificially created structure on hill slopes or on plain areas and designed to store rain water with a storage capacity of 12 cu. m of water to meet the critical demand of the crop in their growth are also promoted by the Department of Agriculture. 100% subsidy is provided by the State Government for maximum of three **Jalkund** per farmer. These ponds have potential to integrate fishery activity.

2.2.3. Agriculture Infrastructure – Others

2.2.3.1. Introduction

Vermicomposting, Tissue culture, Agri-biotechnology, Seed production, Production of Bio Pesticides & Bio-fertilizer are included in Agriculture Infrastructure – Others. Present day intensive agriculture practices have resulted in soil fatigue and deterioration. Emphasis to Soil Rejuvenation by reducing use of chemical inputs and increasing the use of biological and organic inputs is the need of the hour.

Usage of organic inputs is low due to non-availability, bulky nature of produce and high cost of transport and labour for application. The use of tissue culture planting material is also not popular. There is a private commercial biofertilizer production unit in the district, which was set up with subsidy support under NPOF. The unit produces VAM biofertilizer under the brand name *Shubodhya* and is marketed mostly in Maharashtra and Karnataka and used for vegetables, Maize, Paddy, Banana and Papaya.

2.2.3.2. Assessment of Credit potential for 2019-20

The credit potential for this sector is assessed as under:

(₹ Lakh)

Sr. No.	Activity	Unit size	Unit cost	Phy. Units	Fin. outlay	Bank loan
1	Vermicompost (150 TPA)	No.	3.47	10	35.00	27.00
2	Compost NADEP (40	No.	1.18	5	6.00	4.00
3	Bio fertilizers	No.	46.20	2	92.00	69.00
4	Misc. – Seed Prodn., etc.	No.		0	400.00	300.00
	Total			17	533.00	400.00

Block-wise credit potentials are given in **Annexure I**.

2.2.3.3. Availability/Gaps in infrastructure and support services

State Govt. provides 75% to 90% subsidy on fencing, organic manure production and purchase of bio-pesticides, pheromone traps and lures. Production of organic inputs like compost and FYM are yet to be taken up on a large scale. Schemes for community fencing to be introduced as wild animal menace is serious in farms adjoining hills and forests. Under the GoI 'Paramparigat Krishi Vikas Yojana', organic farming is being promoted through two farmer clusters in North Goa with an assistance of ₹ 20,000 per acre per farmer in three years. Under a NABARD project, ICAR-CCARI is studying efficacy of pheromone traps in trapping fruit flies in Cucurbits and Mango & Rhinoceros Beetle and Red Palm Weevil in Coconut.

2.3. Ancillary Activities

2.3.1. Food and Agro Processing

2.3.1.1. Introduction

Loans for food & agro-processing upto an aggregate sanctioned limit of ₹ 100 crore per borrower (Term Loan and / or Working Capital) from banking system is classified under this activity.

Food and Agro processing industry is one of the largest sectors in India in terms of production, growth, consumption and export. Over 60% of the cultivated land in the district is under P&H / perennial crops. There is huge untapped local and export market for processed / value added products.

The district has sizeable meat eating population. There is scope for setting up of modern meat processing facilities for production of value added meat products in the district. The district with a long coast line is rich in fisheries resources, which offer scope for setting up of fish processing industries. Mango, Cashew and Coconut are major fruit crops suitable for processing and value addition. Other minor fruits like Jackfruit and Kokum go waste on account of lack of awareness on processing / harvesting techniques.

The production of major agricultural produce in the State during 2017-18 is as under:

No.	Agro Produce	Production (Tons)	Processing status / marketable surplus
1	Paddy	154487	50% marketable surplus
2	Pulses	4822	No processing, full consumption
3	Cashew Apple / Nut	28012	100% processing – Nuts / Feni
4	Coconut	131.63 m nuts	Sold to Goa Bagayatdar, 15% processed
5	Arecanut	3299	100% sold to Goa Bagayatdar

6	Mango, Banana, Pineapple	41602	75% local consumption, 25% processed
7	Other Fruits	37678	Local consumption
8	Spices	335	100% sold to Goa Bagayatdar
9	Vegetables	89363	Local consumption
10	Fish / marine products	105456	25% processed
11	Sugarcane	47160	100% processing by Sugar Mill

Marketable surplus is available for Cashew, Coconut and Arecanut. Goan Cashewnut is a commodity which is much sought after. Cashew apple is processed into an alcoholic drink - Feni which is unique to Goa and has got a Geographical Indication (GI) tag. Majority of the Coconut is consumed in the State while some portion is dried as copra or used for oil extraction. Arecanut is sold to major processing hubs like Mangalore and Kanpur.

2.3.1.2. Assessment of Credit potential for 2019-20

The credit potential for this sector during 2019-20 is assessed as under:

(₹ Lakh)

Sr. No.	Activity	Unit size	Unit Cost	Phy. Units	Fin. outlay	Bank loan
1	Rice Mills 4800 TPA	No.	83.79	1	84.00	63.00
2	Poha / Murmura mills	No.	6.86	9	62.00	46.00
3	Flour mills – 280 TPA	No.	3.31	30	99.00	64.00
4	Bakery units 80 TPA	No.	8.38	22	184.00	138.00
5	Coconut Oil mills	No.	21.50	9	193.00	145.00
6	Mango / Fruit Proc. 300 MT	No.	82.69	8	662.00	496.00
7	Kokum 72 TPA	No.	4.41	3	14.00	11.00
8	Cashew 50 TPA	No.	7.83	7	55.00	41.00
9	Cashew 500 TPA	No.	176.40	4	706.00	530.00
10	Fish / Milk / Meat Processing	No.	88.20	1	88.00	66.00
	Total			57	2147.00	1600.00

Block-wise credit potentials are given in **Annexure I**.

2.3.1.3. Availability/Gaps in infrastructure and support services

There is good scope for processing of Cashew, Coconut, Arecanut, Jackfruit, Mango, and Banana in the district. Jackfruit, Kokum and Mango are processed to a small extent. Milk is procured by Goa Dairy / SUMUL and processed into pasteurized milk and other milk products like ice-cream, dahi, shrikhand and paneer. Of the around 1806 units registered with DITC, 22 units are engaged in cashew processing, 05 are in marine processing, 05 in coconut processing and the remaining units are into flour / oil mills, masala grinding, jam and pickle making, bakery, etc.

Plantation produce is mostly procured by Goa Bagayatdar and supplied to processing industries outside the State. North Goa has a good network of roads and is well connected with two neighboring States of Maharashtra and Karnataka. Under the State Mission on Food Processing Scheme, financial assistance to the extent of 25% of the cost of Plant & Machinery and technical civil works, subject to a maximum of ₹ 30 lakh is extended for establishment of new food processing units as well as technology upgradation and expansion of existing food processing units.

Goa State Biodiversity Board has promoted 111 Biodiversity Management Committees at Gram Panchayat level. These committees can associate themselves in processing forest produce / spices / medicinal and aromatic plants. Similarly, SHG federations promoted under SRLM can involve in cottage level processing of milk and other agri produce.

2.3.2. Ancillary activities – Others

2.3.2.1. Introduction

Loans to Cooperative Societies of farmers upto ₹ 5 crore for disposing of their produce, loans for setting up of Agri Clinic and Agri Business Centres (ACABC), loans to PACS / Farmer Service Societies, loans to Micro Finance Institutions (MFIs) for onlending to agriculture and loans to FPOs for production, post-harvest, processing and marketing activities are classified under this sector - Agri Ancillary activity – Others. This sector also includes loans given to Custom 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.

2.3.2.2. Assessment of Credit potential for 2019-20

The credit potential assessed for this sector during 2019-20 is as under:

(₹ Lakh)						
Sr. No.	Activity	Unit size	Unit Cost	Phy. Units	Fin. outlay	Bank loan
1	Coop. Society Loans	No.		1	17.00	13.00
2	Loans to PACS	No.		5	200.00	150.00
3	ACABCs	No.	10.00	5	50.00	37.00
	Total			11	267.00	200.00

Block-wise credit potentials are given in **Annexure – I**.

2.3.2.4. Availability/Gaps in infrastructure and support services

State Govt. provides assistance to PACS - Grant and Loan (1:1) for branch computerization, in addition to share capital contribution, grant for infrastructure support, managerial subsidy, grant in aid, etc. On completion of 50 years in existence, PACs can avail financial incentive of ₹ 2 Lakh from the State Government. NABARD provides loan assistance to the PACS under its PACS as PO / PACS as MSC schemes. NABARD Grant support to PACS is available under Cooperative Development Fund (CDF).

Chapter 3: Credit Potential for Micro, Small and Medium Enterprises (MSME)

3.1. Introduction

MSMEs are small sized entities, defined in terms of their size of investment. The MSMEs are classified in terms of investment made in Plant & Machinery (P&M) if they are operating in the **Manufacturing Sector** and investment in Equipment for **Service Sector** companies. The sub-classification is as under:

	Manufacturing sector	Service Sector
	Investment in Plant & Machinery	Investment in Equipment
Micro Enterprises	Does not exceed ₹ 25 lakh	Does not exceed ₹ 10 lakh
Small Enterprises	More than ₹ 25 lakh, but does not exceed ₹ 5 crore	More than ₹ 10 lakh, but does not exceed ₹ 2 crore
Medium Enterprises	More than ₹ 5 crore, but does not exceed ₹ 10 crore	More than ₹ 2 crore, but does not exceed ₹ 5 crore

As per RBI guidelines, bank loans to MSME, irrespective of loan limits, are eligible for classification under priority sector w.e.f. 01 March 2018. MSME units continue to enjoy priority sector lending status upto 03 years after they grow out of the MSME category. Loans extended to units in the Khadi and Villages Industries (KVI) sector are also eligible for classification under the sub-target of 7.5 percent prescribed for Micro Enterprises under priority sector. The main avenues for employment in North Goa are tourism, *mining* and the incidental service sector activities. Major units are in Pharmaceuticals and Engineering Goods sector. The other units are in the fabrication, machinery, ship building and electronics sectors. Cottage industries (Carpentry, Blacksmith, Bamboo works, Handicrafts) are present to a limited extent. Cashew Processing is also a major activities in the District.

3.2. Credit flow in the past three years

The credit flow to the MSME sector in the district during the last 03 years is as under:

(₹ Lakh)

GLC flow	2015-16	2016-17	2017-18
MSMEs	51027.00	152579.00	186926.00

3.3. Assessment of Credit potential for 2019-20

The credit potential assessed for MSME sector during 2019-20 is as under:

(₹ Lakh)

No.	Sector	Units	Financial Outlay	Bank Loan
1	Term Loans			
a	Manufacturing Sector			
i	Micro	2000	20000.00	15000.00
ii	Small	340	51000.00	38250.00
iii	Medium	95	57000.00	42750.00
b	Service Sector			
i	Micro	2039	10193.00	7644.00
ii	Small	1150	57500.00	43125.00
2	Working Capital			
a	Manufacturing Sector			48000.00
b	Service Sector			15231.00
	Total	3030		210000.00

Block-wise credit potentials are given in **Annexure I**.

3.4. Availability of infrastructure, critical gaps & interventions required

For implementation of Ease of Doing Business, the Directorate of Industries, Trade and Commerce (DITC) has been nominated as Nodal Department. A Screening Committee has been constituted under the provisions of Goa - IDC Transfer & Sublease Regulation 2014 to dispose of transfer and sublease cases. The Chief Minister Rozgar Yojana (CMRY) implemented by Economic Development Corporation (EDC) Scheme also provides subsidy assistance to budding entrepreneurs. During 2017-18, upto December 2017, subsidy amounting to ₹ 29.45 lakh has been disbursed to 21 units while 233 beneficiaries have been disbursed loan amounting to ₹ 9.53 crore under CMRY.

There are three Corporations under DITC, viz., Goa Handicrafts, Rural and Small Scale Industries Development Corporation (GHRSSIDC), Khadi and Village Industries Board (KVIB) and Goa Industrial Development Corporation (GIDC), to maintain and develop industrial estates, promote various activities under KVIB, implement PMEGP scheme and to provide training and marketing support for artisans, small scale cottage industries, etc.

A simplified one page registration form called *Udyog Aadhaar* Memorandum (UAM), which can be filed online, has been devised for MSME registration. UAM portal is also accessible on mobile devices. To facilitate single window clearance of projects, the Goa Government has formed the Goa Investment Promotion and Facilitation Board. The State Government has introduced, "The Goa State Financial Relief Scheme for Sick Industrial Units 2016" with the objective to provide financial support to existing Industrial Units who are under award or scheme approved by BIFR. Under the Modified Interest Rebate Scheme – 2012 (MIRS-2012) interest rebate is provided to units in backward talukas.

To increase clarity and transparency in allocation of plots in the industrial areas, the Government has notified the Goa Industrial Development Corporation Allotment Regulations, 2012. Further, to take back plots allotted to units but are non-operational, the Goa IDC Transfer & Sub-lease Regulations, 2013 have been notified. The Goa Start-Up Policy for IT Sector has also been notified. There are around 348 MSME units in the district as under:

Taluka	Micro units	Small units	Medium units	Total	Employment	Investment (P & M) (₹ lakh)	Investment (L & B) (₹ lakh)
Bardez	100	47	5	152	4294	9854.75	9870.40
Pernem	20	7	0	27	431	866.75	1087.75
Bicholim	36	16	0	52	1562	1450.21	1750.98
Sattari	22	15	1	38	915	2734.67	1996.43
Tiswadi	60	17	2	79	1109	2801.08	2168.23
Total	238	102	8	348	8311	17707.46	16873.79

Under Prime Minister' Employment Generation Programme (PMEGP), during 2017-18, KVIB & DIC have sanctioned 59 proposals with project cost of ₹ 508.33 lakh and involving subsidy of ₹ 168.37 generating employment for 474 people in the State. In North Goa District, during 2017-18, 3218 Shishu category loans, 1892 Kishore category loans and 424 Tarun category loans totalling ₹ 91.38 crore have been disbursed under PM Mudra Yojana. Under Stand up India Scheme, 141 applications have been sanctioned and 109 disbursed as on 30 September 2018.

Issues in development of MSME sector include price competition from international market, especially China, lack of Infrastructure facilities, including water supply in industrial estates, narrow roads for movement of export containers, scarcity of skilled labour, increased production cost due to non-availability of raw material in local market. Goa being a small state, the market is limited & goods need to be marketed outside the state, which increases product cost & tough competition.

Chapter 4: Credit Potential for Export Credit, Education, Housing, Renewable Energy, Social Infrastructure and Others

4.1. Credit Potential for Export Credit

4.1.1. Introduction

Export credit is availed by export oriented Pharma companies, light engineering industry, defense manufacturing industry, iron ore exporters, processed marine and cashew exporters. There are 157 Pharma Companies operating in Goa with 71 of them located in North Goa at Karaswada, Mapusa, Tivim, Corlim and Tuem industrial areas. The average annual export of iron ore from Goa was around 30 million tonnes. Mining, however, is presently banned in Goa.

4.1.2. Credit flow in the past three years:

(₹ Lakh)			
GLC flow	2015-16	2016-17	2017-18
Export Credit	NA	758.00	5421.00

4.1.3. Assessment of Credit Potential for 2019-20

Keeping in view the above, the projection for Export Credit for 2018-19 is as below:

(₹ Lakh)					
Sr. No.	Activity	Unit cost	Phy. Units	Fin. outlay	Bank loan
1	Export Credit - Pre shipment and post shipment credit	400	67	25000.00	25000.00

Block-wise credit potentials are given in **Annexure I**.

4.1.4. Availability / Gaps in infrastructure and support services

The Sub office of Director General of Foreign Trade functioning at Panaji takes care of the licensing needs of exporters and implementation of export duty credit back scheme. The Mormugao Port Trust (MPT) and Dabolim Airport handle all exports. Under the GST regime, exporters with clean track record are rewarded by getting immediate refund of 90% of their claims arising on account of exports, within seven days. Goa has good number of pharmaceutical companies which get their export credit requirements sanctioned in metros where their corporate offices are located.

4.2. Credit Potential for Education

4.2.1. Introduction

Loans to individuals for educational purposes including vocational courses upto ₹ 10 lakh irrespective of sanctioned amount are also considered. Ministry of HRD, Dept. of Education is running the Central Scheme to Provide Interest Subsidy (CSIS) on Education Loan for benefit of students from Economically Weaker Sections (EWS) with a total parental income upper limit of ₹ 4.50 lakh.

Goa has recorded 88.70 % literacy as per census 2011. The state has implemented the R.T.E. Act 2009 to ensure that no child in the age group of 6-14 years remains out of school. The mismatch between the higher cost of education and potential income levels of students after completion of education in some professional courses needs to be addressed.

4.2.2. Credit flow in the past three years

The credit flow to the Education sector in North Goa was ₹ 8,155 lakh during 2016-17 and ₹ 4,260 lakh during 2017-18.

4.2.3. Assessment of Credit Potential for 2019-20

The credit potential assessed for Education during 2019-20 is as under:

(₹ Lakh)

Sr. No.	Activity	Unit size	Unit Cost	Phy. Units	Fin. Outlay	Bank Loan
1	Education loan	No.	10	2800	28000.00	21000.00

Block-wise credit potentials are given in **Annexure I**.

4.2.4. Availability/Gaps in infrastructure and support services

The district has nine ITIs, 16 Arts and science colleges and 25 professional colleges. The district is serviced by 315 Commercial Bank branches from where students can avail Bank loan. A Central Sector Scheme under Ministry of Human Resources and Development provides 100% interest subsidy during the study period and subsequent moratorium period before commencement of repayment on Education Loan to the students from Economically Weaker Section (EWS) with a total parental upper income limit of ₹ 4.50 lakh.

It is observed that there were 96,467 students in primary level, but only 7,579 students in colleges. This signifies both infrastructure gap as well as need for improving quality of education.

With increasing fees for professional courses, the loan demand is likely to increase. Banks can cover the education loans under Credit Guarantee Fund Scheme for Education Loans being managed by National Credit Guarantee Trustee Company Ltd. for needy students who cannot provide collaterals.

4.3. Credit Potential for Housing

4.3.1. Introduction

As per revised RBI guidelines dated 19 June 2018, to bring about convergence of PSL guidelines for housing loans with Affordable Housing Scheme & to give a fillip to low-cost housing for Economically Weaker Sections (EWS) and Low Income Groups (LIG), the HL limits for eligibility under PSL has been revised to ₹ 35 lakh in metropolitan centres (with population of ten lakh and above), and ₹ 25 lakh in other centres, provided overall cost of dwelling unit in the metropolitan centre and at other centres does not exceed ₹ 45 lakh & ₹ 30 lakh, respectively. Furthermore, the family income limit for loans to housing projects exclusively for the purpose of construction of houses for EWS and LIGs, is now ₹ 3 lakh per annum for EWS and ₹ 6 lakh per annum for LIG, as per Pradhan Mantri Awas Yojana (PMAY).

In Goa 2/3rd of the housing units are located in urban areas. The credit flow to Housing sector is mostly driven by NRIs, people from metros like Mumbai & New Delhi and the salaried class in Goa. There were 2317 Housing Coop. Societies in Goa as on 31 March 2017.

4.3.2. The credit flow to the Housing sector in the district was ₹ 26,579 lakh during 2016-17 and ₹ 53,219 lakh during 2017-18.

4.3.3. Assessment of Credit potential for 2019-20

The potential assessed for Housing is as under

(₹ Lakh)

Sr. No.	Activity	Unit size	Unit Cost	Phy. Units	Fin. Outlay	Bank Loan
1	HL - New	No.	25.00	2790	69750.00	52313.00
2	HL - Repairs	No.	2.00	4992	9984.00	7488.00
	Total			7900	79734.00	59801.00

Block-wise credit potentials are given in **Annexure I**.

4.3.4. Availability of infrastructure, critical gaps & interventions required

Under PM Awas Yojana (PMAY), Credit Linked Subsidy on Interest is available to EWS / LIGs for loans upto ₹ 12 lakh availed from banks to construct new house or for addition of rooms. The Dept. of Tribal Welfare, Goa Govt. is implementing two schemes for house construction and repairs (*Atal Asra Yojana*), wherein, ₹ 2 lakh and ₹ 0.75 lakh assistance is provided. NABARD has three schemes, viz., direct loan for Rural Housing (without grant), direct loan for Rural Housing (Loan cum grant) and Composite loan for Rural Housing (with Income Generation Activities) for PACS / SCBs / DCCBs and Primary Urban Cooperative Banks.

The Goa Housing Board is an autonomous body of the State Government which provides residential house sites & housing facilities to the Goan population at reasonable price. Clear land titles are not available due to non-mutation of land for generations making it difficult to create effective mortgages for extending housing loan. Mutation / Partition / Conversion of land is a lengthy process in the State.

4.4. Credit Potential for Renewable Energy

4.4.1. Introduction

Bank loans up to a limit of ₹ 15 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 are eligible to be covered under this sector. For individual households, the loan limit is ₹ 10 lakh per borrower.

Goa does not have any power generation facilities and entire energy requirement is drawn from the Western and Central grids. Solar based products - Solar water heaters and solar home lighting systems are becoming popular. Wind speed is inadequate to run wind mills. Biogas units are generally set up along with dairy units. The climate in Goa is suitable for harnessing solar energy; however wind speeds are not adequate to tap wind energy.

4.4.2. Credit flow in the past three years

GLC flow to this sector during 2017-18 was ₹ 0.16 crore.

4.4.3. Assessment of Credit Potential for 2019-20

The potential assessed for renewable sources of energy is as under:

(₹ Lakh)						
Sr. No.	Activity	Unit size	Unit Cost	Phy. Units	Fin. Outlay	Bank Loan
1	Solar water heaters (100 – 500 LPD)	No.	0.65	429	185.00	139.00
2	Solar Street Lighting	No.	0.27	150	41.00	30.00
3	Solar Home Lighting (40- 300 Wp)	No.	0.30	310	100.00	75.00
4	Solar irrigation pumps	No.	5.13	11	56.00	42.00
5	Biogas plant	No.	0.30	100	30.00	23.00
6	Bio Briquetting machines	No.	4.00	7	28.00	21.00
	Total			1007	440.00	330.00

Block-wise credit potentials are given in **Annexure I**.

4.4.4. Availability/Gaps in infrastructure and support services

The Goa State Solar Policy, 2017 has been notified by the State Government. The Goa Energy Development Agency (GEDA) is the Nodal Agency under Ministry of New and Renewable sources of Energy (MNRE). MNRE provides subsidy for Solar PV systems and Solar Pumps. GEDA promotes Renewable Energy activities through its two approved schemes namely (I) New & Renewable Sources of Energy (NRSE) scheme and (II) Integrated Rural Energy Programme (IREP) scheme, by providing incentives / subsidy using funds received under the two schemes.

The State Agriculture Dept. and KVIC are the Nodal Departments for biogas development. Power sale agreement has been executed with Solar Energy Corporation of India (SECI) to meet the additional 50 MW wind power which will commence from November 2018. The State Government is providing illumination at beaches through solar powered lights. All the street lights have also been provided with LED fixtures / bulbs. 100% subsidy is available for biogas installation.

There are a number of private suppliers providing solar based inverters for home and office use, hybrid power back systems, etc. GEDA also provides subsidy under MNRE Schemes apart from additional subsidy for installation of solar lighting and thermal systems.

Web link for Export Credit, Education and Housing is available at
<https://www.nabard.org/info-centre-state-level-papers.aspx?cid=700&id=698>

4.5. Infrastructure Support

4.5.1 Infrastructure - Public Investments

Rural infrastructure comprises rural roads & bridges, irrigation structures, flood control, power, education, health, agricultural research, extension services, rural market yards, rural sanitation, information technology, water and soil conservation measures and all activities which help sustain the growth in production and income generation in rural areas. Investment in rural infrastructure creates new economic opportunities and activities, generates additional employment and income, facilitates and improves delivery of other rural services. Goa fares pretty high in almost all socio-economic indicators. The key infrastructure indices of Goa are as under:

Road network	10,768 Km (260 Km National Highways)
Rail network	167 Km (105 Km - Konkan Railway and 62 Km - SWR)
Navigable internal waterways	255 Km
Ports	01 Major (Mormugao Port Trust - MPT), 05 Minor
International Airport	01 - Dabolim in Mormugao Block, South Goa District Mopa airport in Pernem Block, North Goa is proposed
Power demand	500 Mw
No. of industrial estates	20
Operating industrial units	4000
Key Industries	Pharmaceuticals, Fisheries, Tourism & Mining

The state has the highest per-capita-road-to-man ratio in the country. National Highways 17 and 4A pass through Goa. The construction of the 3rd Mandovi Bridge is ongoing in North Goa. Mandovi, Tiracol and Chapora are the major rivers in the district. The inland water transport for cargo / ferry service is looked after by Captain of Ports. The inland waterways are used mostly for iron ore transport.

Goa has an allocation of approximately 460 Mw of Power from NTPC stations and 28 Mw from NPCIL. The power is supplied through neighbouring State Grids. North Goa has 166 villages and all of them are electrified. The water requirement for domestic and industrial purposes in North Goa is presently catered through Chandel, Assonora and Opa Water Works. To augment the water supply at Assonora Water Works, water is pumped from Chapora River to Assonora River in Mhadei (Mandovi) basin, by interlinking these rivers. The WRD has constructed a series of open type Bandharas all along the river course.

The Tillari Irrigation Project, a joint venture of Govt. of Goa and Govt of Maharashtra, across river Tillari / Chapora is the major irrigation project in North Goa. The total irrigation area of the project is 21197 ha, of which 6676 ha is in Sawantwadi and Dodamarg Taluka of Maharashtra and 14521 ha is in Goa - Bicholim (5130 ha), Bardez (5137 ha) and Pernem (4254

ha). In addition to the provision for irrigation, provision is made for water supply to industrial and for drinking water purpose.

4.5.1.2. Rural Infrastructure Development Fund (RIDF) and NABARD Infrastructure Development Assistance (NIDA)

Rural Infrastructure Development Fund (RIDF) was set up in NABARD in 1995-96 to finance infrastructure projects of State Governments under 36 eligible activities in the fields of Agriculture (Irrigation / Land Development / Soil Conservation / Storage Structures), Rural Connectivity (Roads / Bridges) and the Social Sector (Rural Drinking Water Supply / Health care / Sanitation). Presently the XXIV Tranche of RIDF is in operation.

The position of projects sanctioned under various tranches of RIDF as on 31 March 2018 in the district is given below:

Tranche	RIDF I to XI	RIDF XII to XVII	RIDF XVIII onwards	Total
Rural Connectivity - Roads & Bridges				
No. of Projects	30	-	17	47
Of which, completed	24	-	3	27
RIDF Loan (₹ Crore)	11.97	-	373.64	385.61
Agriculture & Allied Activities - Irrigation				
No. of Projects	19	4	4	27
Of which, completed	17	4	0	21
RIDF Loan (₹ Crore)	4.82	270.75	196.62	472.19
Social Sector – RDWS / Sewerage / Health Centres				
No. of Projects	1	2	6	09
Of which, completed	1	2	0	03
RIDF Loan (₹ Crore)	3.67	18.80	232.70	255.17
Total				
No. of Projects	50	6	27	83
Completed Projects	42	6	3	51
RIDF Loan (₹ Crore)	20.46	289.55	802.96	1112.97

As on 30 September 2018, the list of ongoing RIDF projects in North Goa District are as under:

No.	RIDF Tranche	Name of the Project	RIDF Loan (₹ Crore)	Implementing Department
1	XXI	Tuem Irrigation / RDWS	51.06	WRD
2	XX	Amthane Rural Drinking Water Supply	48.76	WRD
3	XIX	Tillari Irrigation Project - CADA	5.30	WRD
4	XX	Upgradation of Malim Jetty	23.61	GSIDC
Total			128.73	

NABARD has, till date, sanctioned ₹ 392.70 crore in six phases under the various tranches of RIDF to the State Government for Tillari Irrigation Project and Command Area Development Works. Against this, the amount utilized by the State Government is ₹ 364.95 crore. RIDF Assistance of ₹ 18 crore is sanctioned towards flood protection measures at Ajoba Temple, Keri.

During the current year, 2018-19, a project for installation of 53,356 Individual House Hold Latrines for all eligible beneficiaries in all Gram Panchayats in Goa with the objective of declaring Goa as an Open Defecation Free (ODF) state is being considered for sanction.

Under NABARD Infrastructure Development Assistance (NIDA), the following two projects are ongoing in the District:

a. Porvorim Sewerage Scheme – Phase I – Implementing Agency - Sewerage & Infrastructural Development Corporation of Goa Limited (SIDCGL)

b. Construction of 3rd Mandovi Bridge - Implementing Agency - Goa State Infrastructure Development Corporation Ltd. (GSIDCL)

4.5.1.3. Sector wise Infrastructure Requirements / Critical Interventions

A. The major critical infrastructure requirements of the district for different sectors and the additional interventions identified are as under:

Infrastructure	Area	Potential	Est. cost
Tillari Irrigation	Pernem & Bardez Block	Tail end distributaries, canals / waterways desilting, repairing and lining	₹ 10 crore
Desilting, deepening of river	Surla, Bicholim	Desilting of river Surla and deepening of the same along a stretch of around 8 kms	₹ 3 crore
Storage godowns of 500 MT or less	3 villages each in Sattari & Bardez blocks	Coconut, Cashew, Arecanut cultivation is undertaken in these blocks	6 villages x 500MT x ₹ 3500/MT x 125% (labour and overheads are high in Goa) = app. ₹ 1.3 crore
e-trading facilities	All market yards	Increase market outreach for agricultural produce	₹ 2.5 crore
Cold storages (100 MT and less)	1 each in Sattari, Bardez & Tiswadi blocks	Vegetables and fruits go waste in these blocks and are sold at un-remunerative rates due to lack of storage capacity.	3 x 100MTx ₹ 8000/MT = app. ₹ 24.00 lakhs
Bio-fertilizer, bio-pesticide unit	Bardez, Sattari	These blocks have large areas under field as well as plantation crops. Access to bio-inputs will boost production	App. ₹ 6 crore
Large scale farmyard manure composting unit	Pernem	Location decided based on large quantum of biomass available for composting	App. ₹ 1 crore
Mobile veterinary vans for veterinary dispensaries	One each in identified 32 key village centres	Veterinary services are inadequate to respond to emergencies / effective Artificial Inseminations	App. ₹ 3.2 crore
Drinking water dispensing facilities (Water ATMs)	All tourist spots	As Goa is declared to be made plastic free, the reliance on single use plastic bottles can be reduced by setting up this infrastructure	App. ₹ 1 crore

B. Other Infrastructures required

(i) Setting up of fodder banks for procuring, processing and supply of green & dry fodder at block level and arrangements for distributing the same to the dairy farmers through milk routes.

(ii) Strengthening of jetty infrastructure with ice factories and cold storage support (fisheries sector).

(iii) Renovation of rural PHCs

(iv) Development of sewerage system in villages / coastal areas

(v) Establishment of marketing centres to provide infrastructure for NFS products (Rural Mart / Haat)

(vi) Renovation and / or repairs to schools in villages

(vii) Setting up of modern slaughter houses and abattoirs with scientific waste management facilities

The State Government can utilize the low cost funding available under NABARDs RIDF for building up the required infrastructure in the State. NABARD Infrastructure Development Assistance (NIDA) which offers longer repayment period can also be thought of.

4.5.2 Social Infrastructure involving Bank Credit

4.5.2.1 Introduction

Bank Loans upto ₹ 5 crore per borrower for building social infrastructure like schools, health care, drinking water and sanitation facilities in Tier II to Tier VI centres (less than one lakh

population) are classified as PSL. Bank credit to Micro Finance Institutions (MFI) extended for on-lending to individuals / members of SHGs/ JLGs for water and sanitation facilities is also eligible for classification as priority sector loans under 'Social Infrastructure'.

Drinking Water, Education, Power, Health and Sanitation are important components of Social Infrastructure. Creation of social infrastructure is mostly in the domain of public investments. However growing population, rising income levels and needs better education, health care, Drinking Water, Sanitation is leading to private investments in these fields.

4.5.2.2 ₹ 4312 lakh was disbursed under social infrastructure during 2017-18 in the District.

4.5.2.3. Assessment of Credit Potential for 2019-20

The credit potential for development of social infrastructure with bank credit through private participation for 2019-20 is assessed as under:

(₹ Lakh)

Sr. No.	Activity	Unit Size	Unit Cost	Phy. Units	Fin. Outlay	Bank loan
1	Construction of toilet in individual homes	No.	1.43	2200	3153.00	2365.00
2	Educational Institutions (Schools, colleges, toilet blocks, renovations, etc.)	No.	22.05	72	1590.00	1192.00
3	Transport vehicles in health sector (emergency vehicles, hearse vans, etc.)	No.	16.54	20	331.00	248.00
4	Paper and plastic waste recycling unit	No.	22.05	5	110.00	83.00
5	Waste disposal by composting / biogas units in hotels and bakeries	No.	2.21	68	150.00	112.00
	Total			2365	5334.00	4000.00

Block-wise credit potentials are given in **Annexure I**.

4.5.2.4. Availability of Infrastructure, critical gaps & interventions required

The district has 05 Govt. Hospitals, 76 Private Hospitals, 20 Govt. Dispensaries, 03 Urban Health Centres, 13 Sub Health Centres and 14 Community Health Centres. There are 729 primary schools, 266 middle schools and 295 secondary and higher secondary schools in North Goa. The infrastructure facilities of both health and education needs to be upgraded.

Waste disposal is a serious issue in towns as well as villages. Solid Waste Management has to be done in a more scientific manner by waste segregation and recycling, wherever possible. The Govt. is aiming to make Goa Open Defecation Free (ODF) by October 2019.

4.6. Credit Potential for Others

4.6.1. Introduction

Loans not exceeding ₹ 50,000/- per borrower extended to SHG / JLG, loans to distressed persons to prepay their debt to non-institutional lenders, overdrafts on PMJDY accounts up to ₹ 10,000/- and loans sanctioned to State level SC / ST State Organizations for purchase and supply of inputs and / or marketing of the outputs are covered under this sector.

In Goa, due to low poverty levels, scope for further SHG formation is less. The District also lacks good SHPIs for working in the Microfinance field.

4.6.2. Credit flow in the past three years

GLC flow to this sector during 2017-18 was ₹ 3961.00 lakh.

4.6.3. Assessment of Credit potential for 2019-20

The credit potential assessed for this sector during 2019-20 is as under:

(₹ Lakh)

Sr. No.	Activity	Unit size	Unit Cost	Phy. Units	Fin. Outlay	Bank Loan
1	SHG Loans	No.	1.50	2000	3000.00	3000.00
2	JLG Loans	No.	1.25	600	750.00	750.00
3	PMJDY loans – O/D	No.	0.10	500	50.00	50.00
	Total			3600	3800.00	3800.00

Block-wise credit potentials are given in **Annexure I**.

4.6.4. Availability of infrastructure, critical gaps & interventions required

The SHGs in the District need to be encouraged to take up income generation activities. For this, NABARD schemes like (i) Micro Enterprise Development Programme (MEDP), (ii) Livelihood EDP (LEDP) and (iii) Rural Mart Scheme under which grants can be extended for training / capacity building of the SHGs and setting up of a marketing outlet for selling their product / produce can be used. The District Rural Development Agency (DRDA) and Goa State Urban Development Agency (GSUDA) implement the State Rural Livelihood Mission (SRLM) and the National Urban Livelihood Mission (NULM). Women SHG scheme is being implemented in North Goa District.

JLG concept is relevant to Goa in Farm Sector as many farmers do not have title to land. Such farmers can be financed as JLGs to ensure that they do not borrow from non-institutional sources / take Gold Loans. Activity specific JLGs in the NFS like artisans, handicraft workers can also be supported as JLGs. Comprehensive financial inclusion can be achieved through these small loans to villagers and employment can be provided to the rural populace.

As banks are not providing accurate and timely data, Lead Bank has not been able to compile proper data. It is expected that with the implementation of EShakti Project for digitization of SHG data, data cleansing will be facilitated.

Chapter 5: Informal Credit Delivery System

5.1. Introduction

The savings led group approach to deliver varied services at the doorstep is the most prominent Financial Inclusion move till date. The SHG – Bank Linkage Programme which is pioneered by NABARD since 1992 is today the world's largest and cost effective microfinance movement. In India microfinance operates through two channels viz. (a) Banking system through SHGs under SHG-BLP; through Joint Liability Group (JLG) bank lending programme and (b) through Micro Finance Institutions (MFIs) lending. Microfinance sector helps provide livelihoods & empower citizens, especially women.

As on 31 March 2018, the SHG – BLP touches more than 11 crore households through more than 87 lakh SHGs with deposits of over ₹ 19500 crore and annual loan offtake of more than ₹ 47000 crore and loan outstanding of ₹ 75500 crore. In Goa, the reported number of SHGs is over 7000.

5.2. Status of SHG – Bank Linkage Programme in North Goa

As on 30 June 2018, North Goa had 3071 SHGs with total deposits of ₹ 7.54 crore. The total credit linked SHGs stood at 874 with a loan outstanding of around ₹ 5.99 crore. Poverty levels are low in Goa (5.09%) and we have more than the optimum number of SHGs. Credit linkage level is low due to low motivation levels among SHGs in taking up Income Generating Activities (IGAs). There are no good SHPIs in the District. The SHG movement is led by the District Rural Development Agency (DRDA).

Goa State Rural Livelihood Mission (GSRLM) has launched the *Streeshakti* Programme in Goa under NRLM in 2015. Under NRLM, Community and Block Resource Persons are appointed to nurture SHGs. Village Organizations (VOs) are being formed at Gram Panchayat level in the NRLM intensive blocks. The Goa State Urban Development Agency (GSUDA) nurtures the SHGs formed in municipal limits.

Under NRLM, all women SHGs are eligible for loans upto ₹ 3 lakh @ 7% rate of interest. Besides, an additional interest subsidy of 3% is to be provided for prompt repayment. Accordingly, the effective rate of interest works out to 4% p.a. Three blocks, Pernem, Bicholim and Bardez are identified as intensive blocks in North Goa District.

North Goa is identified as one of the 150 districts for implementation of Scheme for Promotion of Women Self Help Groups (WSHG) in the country. Under the WSHG Scheme, a total of around 400 SHGs have been formed in the District.

5.3. Issues related to microfinance in the District

- 1) Inactive SHG accounts due to lack of activities or breakup in the group
- 2) Duplication of members among 2-3 SHGs
- 3) Not much Income Generating Activities, only sustain on internal lendings
- 4) Skill / entrepreneurship is lacking, SHG graduation into livelihood activities is virtually absent
- 5) Members are unaware of the CC facility available for SHG loans
- 6) Some SHGs function as Chits and lend to outside members
- 7) Some SHGs close their operations after 5 years, take out their entire corpus (savings plus accrued interest) and divide among themselves
- 8) Mis-utilization of loan by group leaders
- 9) Inadequate training / lack of awareness among bankers about SHG concept
- 10) MIS on SHGs not readily available with banks
- 11) Many SHGs are registered bodies (due to insistence by SCB or for taking benefit of Govt. Schemes)

5.4. Road Map for SHG-BLP

- 1) Capacity Building / nurturing new Self Help Promoting Institutions (SHPIs) / Bankers.
- 2) Convergence of efforts on the parts of the GoI interventions (NRLM / GSRLM), NABARD and Banks
- 3) Dormant SHGs have to be revived with hand holding support or weeded out
- 4) Potential SHGs have to be trained in IGAs and given Marketing Support (Rural Mart Scheme)
- 5) Banks need to identify inactive accounts and close them in accordance with RBI guidelines.

SHG-BLP needs to re-invent itself and a shift is required from mere promotion of SHGs to providing livelihood opportunities to SHG members in a calibrated manner through skill building, production optimization, value chain facilitation and market linkage.

5.5. NABARD Initiatives

To train SHG members in taking up IGAs, Micro Enterprise Development Programmes (MEDP) are being done under which grant assistance of ₹ 0.50 lakh is provided by NABARD for skilling 30 SHG members. To support livelihood interventions, a scaled up model of MEDPs, the Livelihood Enterprise Development Programme (LEDP) has been devised under which grant assistance between ₹ 4.98 to 6.43 lakh is available for training 90 - 150 beneficiaries in Farm and NFS activities. During 2017-18 one MEDP programmes was conducted in North Goa.

To support the marketing activities of SHGs, NABARD provides support to SHGs in setting up stalls in various exhibitions like *Mahalaxmi Saras*, *Delhi Haat*, *Lokotsav*, etc. Under **Rural Mart** Scheme, support is provided to SHGs to rent shops in the District or Block place for an initial period of 02 years. Banker sensitizing workshops on SHGs / JLGs are also being done by NABARD periodically.



In line with the Hon'ble PMs vision of Digital India, NABARD has launched its flagship project for digitization of SHGs - **EShakti** - in Goa. Under this socio-financial data pertaining to individual SHGs / its members, are being initially uploaded on web portal <https://eshakti.nabard.org/> and will subsequently be updated via an android app on mobile.

For implementing EShakti, NABARD has empanelled two Implementing Agencies (IAs) – The Energy & Resources Institute (TERI) and Mineral Foundation of Goa (MFG).

5.6. Financing through Joint Liability Groups (JLGs)

The JLG model was formulated to develop credit products for Small / Marginal / Tenant Farmers, oral lessees and share croppers who do not have title to land, as also entrepreneurs engaged in various non-farm activities. JLGs are basically groups of 4-10 members who come together on the strength of mutual guarantee to seek livelihood finance for pursuing an economic activity. As many farmers in Goa do not have land titles, JLG mode of lending is expected to help give them access to institutional finance. NABARD provides incentives for JLG formation and does capacity building of stakeholders in addition to extending 100% refinance support to Banks on their JLG lending portfolio. JLGs can also be formed in NFS by linking activity based groups like rural artisans, handicraft workers, etc.

In North Goa District, there are 876 JLGs as on 31 March 2018 with a loan outstanding of ₹ 8.09 crore. NPAs in JLG lending is an issue in Goa. Bank direct lending model to JLGs is a better option compared to NGO driven formation and credit linkage of JLGs.

5.7. Estimation of Potential for SHG-BLP and JLG lending in North Goa

The potential for forming new groups is limited. Block-wise potential for promotion and savings linkage of SHGs & JLGs in the district is furnished in the table below.

No.	Block	SHGs saving linked as on 31 March 2018	No. of SHGs to be promoted & saving linked during 2018-19	No. of JLGs promoted as on 31.03.2018	No. of JLGs to be promoted and saving linked during 2018-19
1	Tiswadi	Individual block-wise data is not available	5	Individual block-wise data is not available	5
2	Bardez		5		5
3	Pernem		5		10
4	Bicholim		5		10
5	Sattari		5		10
	Total	3071	25	876	40

Block-wise potential for credit linkage of SHGs in North Goa during 2018-19 is as under:
(Amt. in ₹ lakh)

No.	Block	SHGs credit linked 31.03.18	SHGs to be credit linked during 2019-20			
			Fresh		Repeat	
			No.	Amt.	No.	Amt.
1	Tiswadi	Individual block-wise data is not available	5	7.50	400	600
2	Bardez		5	7.50	400	600
3	Pernem		5	7.50	400	600
4	Bicholim		5	7.50	400	600
5	Sattari		5	7.50	400	600
	Total	874	25	37.50	2000	3000

Average loan of ₹ 1.50 lakh per SHG is considered

Block-wise potential for credit linkage of JLGs in North Goa during 2018-19 is as under:
(Amt. in ₹ lakh)

No.	Block	JLGs credit linked 31.03.18	JLGs to be credit linked during 2019-20			
			Fresh		Repeat	
			No.	Amt.	No.	Amt.
1	Tiswadi	Individual block-wise data is not available	5	6.25	120	150.00
2	Bardez		5	6.25	120	150.00
3	Pernem		5	6.25	120	150.00
4	Bicholim		5	6.25	120	150.00
5	Sattari		5	6.25	120	150.00
	Total	876	25	31.25	600	7500.00

Average loan of ₹ 1.25 lakh per JLG is considered

Annexure I: Activity-wise and Block-wise Physical and Financial Projections - 2018-19

District: North Goa

(₹ Lakh)

Activity	Unit size	UC	Tiswadi		Bardez		Pernem		Bicholim		Sattari		Dist. Total	
			PU	BL	PU	BL								
Paddy (HYV kharif)	Ha	0.70	3000	2102.63	4000	2803.50	3000	2102.63	2000	1401.75	500	350.44	12500	8761
Pulses	Ha	0.39	50	19.69	500	196.88	2000	787.50	50	19.69	100	39.38	2700	1063
Sugarcane	Ha	1.58	0	0.00	10	15.75	60	94.50	20	31.50	70	110.25	160	252
Vegetables (K / Rabi)	Ha	0.97	400	386.40	300	289.80	500	483.00	300	289.80	200	193.20	1700	1642
Coconut	Ha	1.10	800	882.00	1000	1102.50	500	551.25	500	551.25	500	551.25	3300	3638
Cashew	Ha	0.74	500	367.50	1000	735.00	1000	735.00	1000	735.00	968	711.48	4468	3284
Arecanut	Ha	1.18	2	2.36	18	21.26	10	11.81	70	82.69	400	472.50	500	591
Total			4752	3760.58	6828	5164.69	7070	4765.69	3940	3111.68	2738	2428.49	25328	19231
PH / Household / Consumption @10%				376.06		516.47		476.57		311.17		242.85		1923
Repairs and maintenance of farm assets @20%				752.12		1032.94		953.14		622.34		485.70		3846
Sub Total				4888.75		6714.09		6195.39		4045.18		3157.04	25328	25000
Dug wells (dia 3m, depth 8-10m)	No.	1.89	60	85.05	80	113.40	100	141.75	100	141.75	110	155.93	450	638
Pumpsets 5HP 3 phase submersible	No.	0.31	80	18.71	100	23.39	120	28.07	120	28.07	80	18.71	500	117
Drip irrig. (Coconut)	No.	0.41	50	15.46	200	61.85	200	61.85	150	46.39	100	30.93	700	216
Drip irrig. (Banana)	No.	1.11	20	16.63	54	44.91	20	16.63	50	41.58	60	49.90	204	170
Sprinkler (Arecanut)	No.	0.55	0	0.00	20	8.32	10	4.16	50	20.79	200	83.16	280	116
Small LIS (pumps, pipes)	No.	1.47	20	22.00	80	88.01	50	55.01	75	82.51	75	82.51	300	330
Well deepening (30% of Constrn. cost)	No.	0.55	20	8.32	20	8.32	30	12.47	30	12.47	50	20.79	150	62
Misc. works				50.00		50.00		50.00		50.00		50.00	0	250
Sub Total				216.17		398.19		369.94		423.56		491.92	2584	1900
Tractor 35 HP	No.	7.40	3	16.66	9	49.97	5	27.76	8	44.42	5	27.76	30	167
Power Tillers 8 HP	No.	1.67	10	12.54	15	18.81	15	18.81	10	12.54	10	12.54	60	75
Rice transplanters self-propelled	No.	12.10	1	9.08	1	9.08	1	9.08	1	9.08	1	9.08	5	45
Rice Transplanters Manual	No.	2.75	2	4.13	2	4.13	2	4.13	2	4.13	2	4.13	10	21
Combine Harvesters	No.	25.85	0	0.00	1	19.39	1	19.39	1	19.39	0	0.00	3	58
Sprayers	No.	0.06	100	4.13	100	4.13	100	4.13	100	4.13	100	4.13	500	21
Weeders	No.	0.44	100	33.00	100	33.00	100	33.00	100	33.00	100	33.00	500	165
Threshers	No.	0.41	100	30.53	100	30.53	100	30.53	100	30.53	100	30.53	500	153

Other Agrl. Implements	No.	0.97	400	290.40	500	363.00	498	361.55	400	290.40	400	290.40	2198	1596
Sub Total				400.45		532.02		508.36		447.60		411.55	3806	2300
Cashew New plantation	Ha	1.42	50	53.27	50	53.27	70	74.58	70	74.58	40	42.62	280	298
Cashew Rejuvenation	Ha	0.36	250	67.13	250	67.13	200	53.71	300	80.56	300	80.56	1300	349
Coconut New plantation	Ha	1.98	50	74.06	70	103.69	60	88.88	50	74.06	50	74.06	280	415
Coconut Hybrid	Ha	2.58	40	77.27	50	96.59	20	38.63	50	96.59	50	96.59	210	406
Mango	Ha	1.80	50	67.57	90	121.62	90	121.62	97	131.08	80	108.11	407	550
Oilpalm	Ha	1.16	0	0.00	5	4.33	0	0.00	20	17.33	105	90.96	130	113
Arecanut	Ha	3.12	20	46.78	20	46.78	5	11.69	35	81.86	50	116.94	130	304
Spices (Pepper mixed crop)	Ha	1.21	15	13.64	40	36.38	32	29.11	30	27.29	35	31.83	152	138
Spices Nutmeg (sole crop)	Ha	0.97	20	14.55	30	21.83	10	7.28	15	10.91	15	10.91	90	65
Vegetables (polyhouse) 1000 sqm	No.	12.42	10	93.12	10	93.12	10	93.12	10	93.12	10	93.12	50	466
Vegetables (shadenet) 1000 sqm	No.	4.19	10	31.44	20	62.89	10	31.44	20	62.89	10	31.44	70	220
Floriculture (polyhouse) 560 sqm	No.	9.39	5	35.21	10	70.43	7	49.30	5	35.21	5	35.21	32	225
Orchids - Shade net with poly film	No.	3.00	5	11.25	5	11.25	5	11.25	5	11.25	5	11.25	25	56
Others (Kokum, Cocoa & others)	Ha	3.23	50	121.28	50	121.28	20	48.51	50	121.28	50	121.28	220	534
Nursery - 2000 sqm	No.	3.64	5	13.64	10	27.29	10	27.29	10	27.29	10	27.29	45	123
Oyster Mushroom (800 Kg cycle)	No.	2.43	5	9.10	5	9.10	5	9.10	5	9.10	5	9.10	25	45
Homestead farming 1000 sqm	No.	0.49	100	36.38	100	36.38	110	40.02	120	43.66	100	36.38	530	193
Sub Total				765.71		983.36		735.53		998.06		1017.66	3976	4500
Teak	Ha	0.70	5	2.64	5	2.64	2	1.06	4	2.11	4	2.11	20	11
Bamboo	Ha	0.79	5	2.97	5	2.97	2	1.19	4	2.38	4	2.38	20	12
Wasteland Development	Ha	1.00	15	11.25	20	15.00	20	15.00	20	15.00	15	11.25	90	68
Sub Total				16.86		20.61		17.24		19.49		15.74	130	90
CB Cows (2 animal unit)	No.	1.69	200	253.58	300	380.36	500	633.94	458	580.05	400	507.15	1858	2355
Graded Buffaloes (2 animal unit)	No.	1.69	70	88.75	80	101.43	100	126.79	100	126.79	100	126.79	450	571
Calf rearing (5 animal unit)	No.	3.17	50	119.03	150	357.08	150	357.08	200	476.10	200	476.10	750	1785
Mini Dairy (10 animal unit)	No.	8.45	10	63.39	20	126.79	20	126.79	20	126.79	21	133.13	91	577

Community Dairy (100 animals)	No.	115.00	2	172.50	2	172.50	2	172.50	2	172.50	2	172.50	10	863
Misc. (Equipments, Shed, etc.)	No.	0.29	100	21.56	200	43.13	200	43.13	300	64.69	300	64.69	1100	237
Fodder Cultivation	Ha	0.33	10	2.48	10	2.48	10	2.48	10	2.48	10	2.48	50	12
Sub Total				721.28		1183.76		1462.69		1549.39		1482.83	4309	6400
Layers 2000 birds	No.	13.65	1	10.24	2	20.48	1	10.24	2	20.48	2	20.48	8	82
Broilers 1000 birds	No.	4.73	2	7.09	3	10.63	3	10.63	4	14.18	3	10.63	15	53
Rural BY Poultry 100 birds	No.	0.25	80	15.12	100	18.90	200	37.80	220	41.58	188	35.53	788	149
Open Cage Transport Veh.	No.	10.50	1	7.88	1	7.88	1	7.88	1	7.88	1	7.88	5	39
Egg / Broiler Cart	No.	0.21	1	0.16	1	0.16	1	0.16	1	0.16	1	0.16	5	1
Misc. (Hatchery, Feed Mill)	No.	25.20	0	0.00	1	18.90	1	18.90	1	18.90	1	18.90	4	76
Sub Total				40.48		76.94		85.60		103.16		93.57	825	400
Pig rearing (4+1 unit) with shed	No.	4.73	10	35.44	10	35.44	6	20.20	5	17.72	5	17.72	36	127
Goat Rearing (18+2 unit with shed)	No.	2.63	1	1.97	4	7.88	5	9.84	4	7.88	5	9.84	19	37
Misc. (Shed repair, extn. etc.)	No.	3.15	5	11.81	10	23.63	14	33.08	10	23.63	10	23.63	49	116
Sub Total				49.22		66.94		63.12		49.22		51.19	104	280
Trawler replacement	No.	57.75	10	433.13	10	433.13	10	433.13	0	0.00	0	0.00	30	1299
Mechanization of canoes - OBM	No.	1.65	20	24.75	25	30.94	25	30.94	0	0.00	0	0.00	70	87
Fibre Boats (motorized)	No.	2.31	25	43.31	26	45.05	26	45.05	0	0.00	0	0.00	77	133
Repair & maintenance of vessels	No.	0.75	70	39.38	67	37.69	65.00	50.00	0.00	0.00	0.00	0.00	202	127
GPS, fish finder, search beacon	No.	1.54	80	198.00	75	185.63	75	86.63	0	0.00	0	0.00	230	470
Misc. (net, search beacon, etc.)	No.		0	25.00	0	25.00		30.00		0.00		0.00	0	80
Fresh water fish culture/ha	Ha	5.83	2	8.75	2	8.75	2	8.75	1	4.37	0	0.00	7	31
Ornamental fish rearing	No.	3.30	3	7.43	3	7.43	2	4.95	1	2.48	1	2.48	10	25
Mussel culture	No.	0.44	2	0.66	2	0.66	1	0.33	0	0.00	0	0.00	5	2
Mud crab culture	No.	8.25	1	6.19	1	6.19	1	6.19	0	0.00	0	0.00	3	19
Brackish water prawn culture	No.	12.32	1	9.24	1	9.24	1	9.24	0	0.00	0	0.00	3	28
Sub Total				795.82		789.68		705.19		6.85		2.48	637	2300
Bullocks & draught animals	No.	0.83	10	6.19	5	3.09	6	3.71	10	6.19	10	6.19	41	25

Farm vehicles- pick up vans	No.	7.35	10	55.11	15	82.67	16	88.18	17	93.69	10	55.11	68	375
Agriculture -others.	No.			1100.00		1500.00		1000.00		1000.00		1000.00	0	5600
Sub Total				1161.30		1585.76		1091.89		1099.87		1061.30	109	6000
Total Farm credit				9056.04		12351.33		11234.94		8742.37		7785.26	41807	49170
Cold storages (1000 MT)	No.	66.15	0	0.00	1	48.62	0	0.00	1	49.61	0	0.00	2	98
Market yards	No.	242.55	0	0.00	1	181.91	0	0.00	0	0.00	1	181.91	2	364
Godowns (100 MT)	No.	3.86	1	2.89	1	2.89	1	2.89	0	0.00	1	2.89	4	12
Small milk chilling (1000 litres)	No.	5.79	1	4.34	1	4.34	1	4.34	2	8.68	1	4.34	6	26
Sub Total				7.24		237.77		7.24		58.29		189.15	14	500
Land levelling and OFD	Ha	0.91	300	204.19	500	340.31	500	340.31	500	340.31	500	340.31	2300	1565
Reclamation	Ha	0.30	100	22.69	100	22.69	100	22.69	100	22.69	100	22.69	500	113
Water storage structures	No.	0.75	10	5.63	10	5.63	10	5.63	10	5.63	10	5.63	50	28
Farm Fencing	Ha	0.60	50	22.50	100	45.00	100	45.00	100	45.00	300	135.00	650	293
Sub Total				255.00		413.63		413.63		413.63		503.63	3500	2000
Composting - Vermi (150 TPA)	No.	3.47	2	5.20	3	7.80	3	7.80	1	2.60	1	2.60	10	26
Composting - NADEP (40 TPA)	No.	1.18	1	0.88	1	0.88	1	0.88	1	0.88	1	0.88	5	4
Biofertilizers - 50 TPA	No.	46.20	0	0.00	1	34.65	0	0.00	0	0.00	1	34.65	2	69
Misc. (Fencing, Bund Repairing, etc.)	No.			50.00		50.00		50.00		50.00		100.00	0	300
Sub Total				56.08		93.33		58.68		53.48		138.13	17	400
Total Agri Infrastructure				318.32		744.72		479.54		525.40		830.91	3531	2900
Agri -Ancillary activities														
Rice Mill 4800 MT/annum	No.	83.79	0	0.00	0	0.00	1	62.84	0	0.00	0	0.00	1	63
Poha/Murmura - 450 TPA	No.	6.86	1	5.14	2	10.29	2	10.29	2	10.29	2	10.29	9	46
Flour Mill - 280 TPA	No.	3.31	5	12.40	5	2.00	10	24.81	5	12.40	5	12.40	30	64
Bakery Units - 80 TPA	No.	8.38	3	18.85	6	37.71	5	31.42	5	31.42	3	18.85	22	138
Coconut oil mill 90 MT / annum	No.	21.50	1	16.12	2	32.25	2	32.25	2	32.25	2	32.25	9	145
Fruit Proc. 300 MT/annum	No.	82.69	1	62.02	3	186.05	2	124.03	1	62.02	1	62.02	8	496
Kokum Proc. 72 TPA	No.	4.41	0	0.00	1	3.31	1	3.70	1	3.70	0	0.00	3	11
Cashew Proc. 50 TPA	No.	7.83	1	5.87	2	11.74	1	5.87	1	5.87	2	11.74	7	41

Cashew Proc. 500 MT / annum	No.	176.40	0	0.00	1	132.30	1	132.30	1	132.30	1	132.30	4	529
Fish / Meat Proc. 200 TPA	No.	88.20	0	0.00	1	66.15	0	0.00	0	0.00	0	0.00	1	66
Sub Total			12	120.41	23	481.79	25	427.51	18	290.25	16	279.85	94	1600
Loans to Coop Societies			0	0.00	0	0.00	1	13.00	0	0.00	0	0.00	1	13
Loans to PACS			1	25.00	1	25.00	1	25.00	1	50.00	1	25.00	5	150
ACABCs	No.	10.00	1	7.50	1	7.50	1	7.50	1	7.50	1	7.50	5	37
Sub Total				32.50		32.50		45.50		57.50		32.50	11	200
Total Agri Ancillary				152.91		514.29		473.01		347.75		312.35	105	1800
Total Agriculture				9527.26		13610.34		12187.50		9615.52		8928.52	45443	53869
MSME (M) Micro	No.	10.00	500	3750.00	500	3750.00	450	3375.00	300	2250.00	250	1875.00	2000	15000
340	No.	150.00	80	9000.00	100	11250.00	80	9000.00	50	5625.00	30	3375.00		38250
MSME (M) Medium	No.	600.00	20	9000.00	30	13500.00	20	9000.00	15	6750.00	10	4500.00	95	42750
Sub Total			600	21750.00	630	28500.00	550	21375.00	365	14625.00	290	9750.00	2435	96000
MSME (M) WC	No.			10875.00		14250.00		10687.50		7312.50		4875.00	0	48000
MSME - Service Sector Term loan														
MSME (S) Micro	No.	5.00	500	1875.00	500	1875.00	450	1687.50	300	1125.00	289	1081.88	2039	7644
MSME (S) Small	No.	50.00	300	11250.00	400	15000.00	200	7500.00	150	5625.00	100	3750.00	1150	43125
Sub Total			800	13125.00	900	16875.00	650	9187.50	450	6750.00	389	4831.88	3189	50769
MSME (S) WC	No.		0	3937.50		5062.50		2756.25		2025.00		1449.56	0	15231
Total			1400	49687.50		64687.50		44006.25		30712.50		20906.44	5624	210000
III. Export credit	No.	250.00	35	8750.00	40	10000.00	25	6250.00	0	0.00	0	0.00	100	25000
Education loans	No.	10.00	600	4500.00	800	6000.00	500	3750.00	400	3000.00	500	3750.00	2800	21000
Housing Loans (New)		25.00	900	16875.00	890	16687.50	400	7500.00	400	7500.00	200	3750.00	2790	52313
Housing Loans (Repairs)	No.	2.00	1000	1500.00	1492	2237.00	900	1350.00	800	1200.00	800	1200.00	4992	7487
Sub Total			1900	18375.00	2382	18924.50	1300	8850.00	1200	8700.00	1000	4950.00	7782	59800
100 LPD	No.	0.22	30	4.95	30	4.95	50	8.25	30	4.95	30	4.95	170	28
200 LPD	No.	0.44	30	9.90	30	9.90	50	16.50	30	9.90	30	9.90	170	56
300 LPD		0.66	8	3.96	7	3.47	10	4.95	10	4.95	5	2.48	40	20
400 LPD		0.88	3	1.98	3	1.98	5	3.30	3	1.98	3	1.98	17	11
500 LPD		0.99	6	4.46	6	4.46	10	7.43	5	3.71	5	3.71	32	24
(B) Solar street light systems	No.	0.27	30	6.08	30	6.08	30	6.08	30	6.08	30	6.08	150	30
a) Model -I (40 Wp)	No.	0.18	20	2.70	20	2.70	20	2.70	10	1.35	10	1.35	80	11
b) Model -DC (150Wp)	No.	0.30	30	6.75	30	6.75	30	6.75	15	3.38	15	3.38	120	27
c) Model - AC (300 Wp)	No.	0.45	30	10.13	30	10.13	30	10.13	10	3.38	10	3.38	110	37
Solar irrig. Pumps 3 HP	No.	5.13	2	7.70	2	7.70	3	11.54	2	7.70	2	7.70	11	42
Biogas plant	No.	0.30	20	4.50	20	4.50	20	4.50	20	4.50	20	4.50	100	23

Biomass briquetting machines	No.	4.00	2	6.00	2	6.00	1	3.00	1	3.00	1	3.00	7	21
Sub Total				69.09		68.60		85.12		54.86		52.39	1007	330
SHG loans (group loan)	No.	1.50	200	300.00	400	600.00	400	600.00	500	750.00	500	750.00	2000	3000
JLG loans (group Loan)	No.	1.25	100	125.00	100	125.00	200	250.00	100	125.00	100	125.00	600	750
PMJDY loans	No.	0.10	100	10.00	100	10.00	100	10.00	100	10.00	100	10.00	500	50
Sub Total				435.00		735.00		860.00		885.00		885.00	3600	3800
Toilet blocks in individual homes	No.	1.43	400	429.98	400	429.98	400	429.98	500	537.47	500	537.47	2200	2365
School toilet & drinking water facility	No.	22.05	20	330.75	17	282.79	15	248.06	10	165.38	10	165.38	72	1192
Transport vehicles in health sector	No.	16.54	4	49.61	4	49.61	4	49.61	4	49.61	4	49.61	20	248
Paper and plastic waste recycling unit	No.	22.05	1	16.54	1	16.54	1	16.54	1	16.54	1	16.54	5	83
Waste disposal composting / biogas	No.	2.21	15	24.81	15	24.81	15	24.81	15	24.81	8	13.23	68	112
Sub Total				851.68		803.72		768.99		793.80		782.22	2365	4000
Grand Total (Total Priority Sector)				92195.53		114829.66		76757.86		53761.68		40254.57		377800

**Annexure II: An Overview of Ground Level Credit Flow - Agency-wise and Sector-wise
2015-16, 2016-17, 2017-18 and target for 2018-19**

(₹ Lakh)

No.	Agency/ Category	2015-16		2016-17		2017-18		2018-19
		Target	Achievement	Target	Achievement	Target	Achievement	Target
1	Crop Loan							
	CBs	17290.99	14913.61	16080.00	16300.00	17327.67	11952.00	19368.00
	SCB	4775.89	1165.56	4020.00	679.00	5155.35	956.00	2854.00
	Others	270.00	366.81	0.00	0.00	0.00	0.00	1598.00
	Sub Total (A)	22336.88	16445.98	20100.00	16979.00	22483.02	12908.00	23820.00
2	Term Loan (MT+TL) (Incl. Agri Infra, Agri Ancillary)							
	CBs	14680.58	9607.26	18069.60	20084.00	20707.57	5591.00	23614.00
	SCB	5730.49	2477.34	4517.40	837.00	7921.03	19166.00	3513.00
	Others	141.42	196.96	0.00	0.00	0.00	0.00	1835.00
	Sub Total (B)	20552.49	12281.56	22587.00	20921.00	28628.60	24757.00	28962.00
3	Total Agri Credit							
	CBs	31971.57	24520.87	34149.60	36384.00	38035.24	17543.00	42982.00
	SCB	10506.38	3642.90	8537.40	1516.00	13076.38	20122.00	6367.00
	Others	411.42	563.77	0.00	0.00	0.00	0.00	3433.00
	Sub Total (C)	42889.37	28727.54	42687.00	37900.00	51111.62	37665.00	52782.00
4	MSME							
	CBs	33863.97	49131.75	126368.00	146476.00	182618.50	176866.00	183955.00
	SCB	1155.20	102.13	-	-	6246.93	748.00	7188.00
	Others	1617.06	1792.89	34592.00	6103.00	8159.75	9313.00	11587.00
	Sub Total (E)	36636.23	51026.77	160960.00	152579.00	197025.18	186927.00	202730.00
5	Other Priority Sector							
	CBs	114660.38	117616.56	83910.40	36178.00	81984.78	63881.00	103168.00
	SCB	12705.28	12461.59	-	-	10138.38	402.00	170.00
	Others	29297.87	20562.26	20977.60	1507.00	12439.18	2755.00	6640.00
	Sub Total (F)	156663.53	150640.41	104888.00	37685.00	104562.34	67038.00	109978.00
6	Grand Total							
	CBs	180495.92	191269.18	244428.00	219037.00	302638.52	258290.00	330105.00
	SCB	24366.86	16206.62	-	-	29461.69	21272.00	13725.00
	Others	31326.35	22918.92	61107.00	9127.00	20598.93	12068.00	21660.00
	Grand Total (D+E+F)	236189.13	230394.72	305535.00	228164.00	352699.14	291630.00	365490.00

**Annexure III: Sub-sector-wise and Agency-wise Credit Flow under Agriculture and Allied Activities
2015-16, 2016-17 and 2017-18**

(₹ Lakh)

Sr. No.	Activity	2015-16				2016-17				2017-18			
		CBs	SCB	OTH	Total	CBs	SCB	OTH	Total	CBs	SCB	OTH	Total
1	Crop Loans	14913.61	1165.56	366.81	16445.98	17327.67	5155.35	0.00	22483.02	11952.00	956.00	0.00	12908.00
	Investment Credit												
2	Water Resources	297.37	52.07		349.44	Sub sector data not available				Sub sector data not available			
3	Land Development	1306.18	55.39		1361.57								
4	Farm Mechanisation	479.33	670.34		1149.67								
5	Plantation & Horticulture	481.24	713.59		1194.83								
6	Forestry	247.22	570.47		817.69								
7	AH-Dairy	1.01	307.33		308.34								
8	AH-Poultry	27			27								
9	AH-Sheep/Goat/Piggery	330.73	104.69		435.42								
10	Fisheries	53.6	0.49		54.09								
11	Storage & Market yard	32.36			32.36								
12	Renewable Energy				0								
13	Others	6351.22	2.97	196.96	6551.15								
14	Total Term Loans	9607.26	2477.34	196.96	12281.56	20707.57	7921.03	0.00	28628.60	5591.00	19166.00	0.00	24757.00
	Grand Total (1 + 14)	24520.87	3642.9	563.77	28727.54	38035.24	13076.38	0.00	51111.62	17543.00	20122.00	0.00	37665.00

Annexure IV - Indicative Unit Costs (for major activities in the district) as arrived at by NABARD for its internal use

Sr. No.	Item of Investment	Specifications	Unit cost (₹)	Remarks
I. Minor Irrigation				
1	Open wells (new) Dug-well-cum-Bore wells in lateritic terrain Deepening of existing well	3-4 m dia and 8-10 m depth of lining 3-5m	132000 to 180000 48,000	Yearly repayment. Max. of 15 yrs. with gestation period of 23 months.
2	Pumpset –electric (3 phase, submersible) with accessories and installation charges	5 HP	25,000	Yearly repayment. Max. of 9 yrs. with gestation period of 11 months.
3	Drip Irrigation (coconut) per ha (includes cost of mainline, lateral, drippers micro tubes, connectors, end plugs, screen filters, control valves and other accessories)	8m x 8m crop spacing	32,500	Yearly repayment. Max. of 10-15 yrs. with gestation period of 11 months.
4	Drip Irrigation (Banana) per ha	2m x 2m	91,300	
5	Sprinkler Irrigation per ha (semi-permanent system)	75 mm HDPE pipes	45,750	
6	Small Lift irrigation	160 mm dia pipes	1,27,000	
II. Land Development				
1	Land levelling, OFD / ha and graded bunding	0.95 sqm c/s 210 m length per ha - 200 CuM	72,450	For lands with 2-3% slope. (UC rounded to Rs.50000)
2	Water Management/ conservation /water storage ponds (25 m3 capacity)	5 m x 5m x 1m	58,650	
3	Land Reclamation (minor work) /ha		25,000	
4	Composting -NADEP -40 TPA		1,00,000	@Rs.15000/6T/annum
5	Composting (vermicompost) -150 TPA		3,00,000	@Rs.2000/T/annum
III. Farm mechanization				
1	Tractors - 35 HP		6,73,000	Half Yearly repayment. -max. 5-7 years with 3 months grace.
2	Power tillers - 8 HP		1,52,000	
3	Rice transplanters – Japanese model		11,00,000	
4	Combine harvesters		23,40,000	
5	Agrl. implements - sprayers		5,000	
6	Agrl. implements - Weeders		40,000	
7	Agrl. implements – threshers		40,000	
IV. Plantation and Horticulture				
1	Cashew / ha		1,05,000	Repayment of 12-15 years with gestation of 6-7 years
2	Coconut / ha		1,24,000	
3	Hybrid coconut / ha		2,12,600	
4	Arecanut / ha		1,76,600	
5	Mango (and other garden fruits) / ha		1,66,000	Repayment of 10-12 years with gestation of 4-5 years
6	Oil palm / ha		1,00,000	
7	Spices- pepper (mixed crop with areca/coconut / ha		1,00,000	
8	Spices – nutmeg /ha		80,000	
9	Vegetable (poly house of 1000 sqm)		10,75,000	Polyhouse cost -Rs.935 per sqm and planting material cost –Rs. 105/sqm
10	Floriculture (poly house of 560 sqm - Gerbera)		8,13,000	Polyhouse-Rs.935/sqm & pm–Rs.500/sqm
11	Orchid cultivation Shade net house with poly film	30m x 6m	2,73,000/-	Repayment 8 years with 1 year grace period

Sr. No.	Item of Investment	Specifications	Unit cost (₹)	Remarks
12	Vegetable under shade net -1000 sqm		363000	
13	Nursery (PH planting matl. and ornamental) / acre		300000	
14	Oyster mushroom units –nos.(8000 kg per annum)		2,00,000	
15	Homestead gardening 1000sqm		40,000	
V. Forestry				
1	Teak / ha		64,000	
2	Bamboo / ha		72,000	
Animal Husbandry – Dairy Development				
1	CB Cows	2 animals	1,40,000	Repayment monthly. Max. of 5-6 years with gestation of 6 months
2	Graded Buffaloes	2 animals	1,40,000	
3	Calf rearing	Per animal	53,000	
4	Mini dairy	10 animals	7,00,000	
Animal Husbandry – Poultry Development				
1	Commercial Layers	2000 birds unit	13,00,000	Repayment quarterly. Max. of 6-7 years with gestation of 6 months
2	Commercial Broilers	1000 birds unit	4,50,000	
3	Rural back yard poultry	100 birds	24,000	
4	Poultry feed mill/Hatchery		2,40,000	
Animal Husbandry – Goat and Piggery Development				
1	Pig rearing with sty	4 sows +1 boar unit	4,50,000	Repayment half yearly. Max. of 5-6 years with gestation of 1 year.
2	Goat Rearing (with shed)	18 does +2 buck unit	2,50,000	
Fisheries				
1	Trawler replacement - wooden / steel hull (along with engine and power block) - length not exceeding 60 feet.		52,50,000	
3	Mechanization of canoes - with Out Board Motors		1,50,000	
4	Fiber Boats (motorized - length not exceeding 36 feet		2,10,000	
5	Fresh water fish culture / ha – carp varieties		5,30,000	
6	Ornamental fish rearing		3,00,000	
7	Mussel culture		40,000	
8	Crab culture		7,50,000	
9	GPS / Fish finder		35,000	
8	Brackish water culture		1120000	
Storage Godowns and Market yards				
1	Cold storages	1000 MT capacity	60,00,000	
2	Market Yards		22000000	
3	Godowns	100 MT	3,50,000	
4	Small milk chilling units	1000 litres	5,25,000	
Renewable sources of energy -Biogas				
1	Biogas unit	2 cum	30000	
2	Biomass briquetting machine		400000	
3	Solar irrigation pumps	3 HP	513000	

Annexure-V: Scale of Finance for major crops fixed by State Level Technical Committee (SLTC) for 2018-19

Sr. No.	Name of the Crop	Cost of cultivation per Plant/Acre (₹)	Bank Loan per acre	Bank Loan per ha.	Due date for Repayment
1	2	3	4	5	6
1	Paddy Local	21500	21500	55750	15th Jan -- Kharif 30th June -- Rabi
2(a)	Paddy (H.Y.V- Kharif)	26700	26700	66750	15th Jan -- Kharif
2(b)	Paddy (H.Y.V- Rabi.)	29700	29700	74250	30th June -- Rabi
3(a)	Banana Local (Per Plant)	260	260	650	Max. 18 months from date of Disb.
3(b)	Banana Local (Per Acre 600 Plants)	156000	156000	390000	-do-
4(a)	Banana Local Ratoon (Per Plant)	204	204	510	-do-
4(b)	Banana Local Ratoon (600 Plants/acre)	120000	120000	300000	-do-
5(a)	Banana Mandoli (Per Plant)	400	400	1000	-do-
5(b)	Banana Mandoli (Per Acre 600 Plants)	250000	250000	625000	-do-
6	Tissue culture Banana (600 /Acre)	103000	103000	257500	18 months from date of Disb.
	Shreemati Grandenine and Local (TC)	108000	108000	270000	18 months from date of Disb.
7	Papaya (Per Acre) (600 Plants)	50000	50000	125000	15 to 18 Months from date of Disb.
8(a)	Pine Apple High breed variety giant (Per Acre 15000 plants)	91000	91000	227500	31st May
9(a)	Vegetable (Kharif) (Per Acre) Local	33000	33000	82500	6 months from the date of Disb.
9(b)	Vegetable (Rabi) local (per acre)	36800	36800	92000	6 months from the date of Disb.
9©	Hybrid vegetables	41450	41450	103625	6 months from the date of Disb.
10(a)	Arecanut (Per plant)	400	400	1000	12 months from the date of Disb.
10(b)	Arecanut (Per Acre 600 plants)	240000	240000	600000	12 months from the date of Disb.
11(a)	Cashew (Per Plant)	350	350	875	15th June
11(b)	Cashew (Per Acre 80 plants)	42000	42000	105000	15th June
12(a)	Coconut (Per plant)	700	700	1750	12 months from the date of Disb.
12(b)	Coconut (Per Acre 60 plants)	42000	42000	105000	12 months from the date of Disb.
13	Groundnut (Rabi)	19000	19000	47500	30th June
14	Pulses (Per Acre)	15000	15000	37500	30th June
15(a)	Sugarcane (New Crop) (Per Acre)	60000	60000	150000	15th June / 30th June
15(b)	Sugarcane (Ratoon) (Per Acre)	48000	48000	120000	15th June / 30th June
16	Rubber Plantation (Per Acre)	11000	11000	27500	31st May
17	Oil Palm (Per Acre)	30000	30000	75000	31st May
18(a)	Mango (Per plant)	1500	1500	3750	31st July
18(b)	Mango (Per Acre 40 plants)	60000	60000	150000	31st July
19(a)	Floriculture New Crops Bulbous Crops (Per Acre) (Gladioli, Tuberose)	112000	112000	280000	30th June
19(b)	Anthurium (Per Acre) Gerbera, Orchids etc.	112000	112000	280000	30th June
19(c)	Grafted varieties or Medium costs crops (per Acre) (Rose, chrisanthemum etc.)	45000	45000	112500	30th June
19(d)	Seed Varieties (per Acre) Marigold, Aster, Crossandra etc.)	40000	40000	100000	30th June
20	Vetivera	29200	29200	73000	12 months from date of Disb.
21	Fodder(new plantation)	39300	39300	98250	12 months from date of Disb.
22	Fodder ratoon	25000	25000	62500	12 months from date of Disb.
23	Spices nutmeg – new plantation	350	350	350	12 months from date of Disb.
24	Spices bl. Pepper – new plantation	150	150	150	12 months from date of Disb.
25	Ginger	80000	80000	200000	9-12 months from date of Disb.
26	Turmeric	70000	70000	175000	9-12 months from date of Disb.

Abbreviations

ACABC	Agri Clinics and Agri Business Centres	MNRE	Ministry of New and Renewable Sources of Energy
ACP	Annual Credit Plan	MPT	Mormugao Port Trust
APMC	Agricultural Produce Marketing Committee	MSL	Mean Sea Levels
ASCI	Agriculture Skill Council of India	MSME	Micro, Small and Medium Enterprises
ATS	Apprenticeship Training Scheme	MUDRA	Micro Units Development & Refinance Agency
BMCs	Biodiversity Management Committees	NAFCC	National Adaptation Fund on Climate Change
CADA	Command Area Development Authority	NAPCC	National Action Plan on Climate Change
CBS	Core Banking System	NBFC	Non-Banking Financial Company
CC	Climate Change	NCDC	National Cooperative Development Corporation
CCARI	Central Coastal Agricultural Research Institute	NCOF	National Centre for Organic farming
CDF	Cooperative Development Fund	NCVT	National Council for Vocational Training
CGWB	Central Ground Water Board	NICRA	National Initiative on Climate Resilient Agriculture
CMRY	Chief Minister Rozgar Yojana	NIDA	NABARD Infrastructure Development Assistance
CRZ	Coastal Regulation Zone	NIE	National Implementing Entity
CTS	Craftsmen Training Scheme	NIO	National Institute of Oceanography
DAY	Deendayal Antyodaya Yojana	NPOF	
DBT	Direct Benefit Transfer	NRLM	National Rural Livelihoods Mission
DCC	District Consultative Committee	NSA	Net Sown Area
DCCB	District Central Cooperative Bank	NSDA	National Skill Development Agency
DGT	Directorate General of Training	NSDC	National Skill Development Corporation
DIC	District Industries Centre	NULM	National Urban Livelihood Mission
DITC	Directorate of Industries, Trade & Commerce	OFPO	Off Farm Producer Organization
DRDA	District Rural Development Agency	OFSPF	Off-Farm Sector Promotion Fund
DSTE	Department of Science Technology and Environment	P&H	Plantation & Horticulture
EDC	Economic Development Corporation	P&M	Plant & Machinery
eNAM	Electronic National Agricultural Market	PACS	Primary Agricultural Credit Society
FCI	Food Corporation of India	PBR	Peoples Biodiversity Register
FI	Financial Inclusion	PHCs	Primary Health Centres
FLC	Financial Literacy Centres	PKVY	Paramparigat Krishi Vikas Yojana
FPC	Farmer Producer Company	PLP	Potential Linked Credit Plan
FPF	Food Processing Fund	PMAY	Pradhan Mantri Awas Yojana
FPOs	Farmer Producer Organizations	PMEGP	Prime Minister' Employment Generation Programme
FSPF	Farm Sector Promotion Fund	PMFBY	Pradhan Mantri Fasal Bima Yojana
FSSAI	Food Safety & Standards Authority of India	PMJDY	Pradhan Mantri Jan Dhan Yojana
FYM	Farm Yard Manure	PMKSY	Pradhan Mantri Krishi Sinchayi Yojana
GCA	Gross Cropped Area	PMKVY	Pradhan Mantri Kaushal Vikas Yojana
GCCI	Goa Chamber of Commerce and Industry	PSL	Priority Sector Lending
GCF	Green Climate Fund	PWD	Public Works Department

GCZMA	Goa Coastal Zone Management Authority	RCS	Registrar of Cooperative Societies
GEDA	Goa Energy Development Agency	RDWS	Rural Drinking Water Supply Scheme
GFDC	Goa Forest Development Corporation	RIDF	Rural Infrastructure Development Fund
GHRSSIDC	Goa Handicrafts Rural and Small Scale Industries Development Corporation	RKVY	Rashtriya Krishi Vikas Yojana
GI	Geographical Indication	RRBs	Regional Rural Banks
GSAMB	Goa State Agriculture Marketing Board	RSETI	Rural Self Employment Training Institute
GSHDCL	Goa State Horticulture Development Corporation Ltd.	RUDSETI	Rural Development and Self Employment Training Institute
GSIDC	Goa State Infrastructure Development Corporation	SAPCC	State Action Plan for Climate Change
GSRLM	Goa State Rural Livelihood Mission	SCARDBs	State Cooperative Agricultural & Rural Development Banks
HRDF	Human Resource Development Federation	SCB	State Cooperative Bank
ICAR	Indian Council for Agricultural Research	SCVT	State Council for Vocational Training
IGA	Income Generating Activities	SDI	Skill Development Initiative
IPCC	Intergovernmental Panel on Climate Change	SEZ	Special Economic Zone
IPM	Integrated Pest Management	SF	Small Farmer
ISS	Interest Subvention Scheme	SHGs	Self Help Groups
ITI	Industrial Training Institutes	SHPIs	Self Help Promoting Institutions
JLGs	Joint Liability Groups	SIP	Salaulim Irrigation Project
KCC	Kisan Credit Card	SLBC	State Level Bankers Committee
KVI	Khadi and Villages Industries	SLSCCC	State Level Steering Committee on Climate Change
KVIB	Khadi and Villages Industries Board	SLUCC	State Level Unit Cost Committee
KVIC	Khadi and Villages Industries Commission	SRI	System of Rice Intensification
KVKs	Krishi Vigyan Kendras	SSI	Sustainable Sugarcane Initiative
LBRs	Lead Bank Returns	SSSKL	Sanjivani Sahakari Sakhar Karkhana Ltd.
LBS	Lead Bank Scheme	STLs	Soil Testing Labs
LEDP	Livelihood Enterprise Development Programme	TFO	Total Financial Outlay
LTIF	Long Term Irrigation Fund	UAM	Udyog Aadhaar Memorandum
MEDP	Micro Enterprise Development Programme	UCBs	Urban Cooperative Bank
MF	Marginal Farmer	WGDP	Western Ghats Development Programme
MFI	Micro Finance Institutions	WIF	Warehousing Infrastructure Fund
MI	Minor Irrigation	WRD	Water Resources Department
MIDH	Mission for Integrated Development of Horticulture	WRs	Warehouse Receipts



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