

CHAPTER - III : GROWTH AND DEVELOPMENT OF
COOPERATIVE LAND DEVELOPMENT BANKS
IN INDIA AND MAHARASHTRA

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CHAPTER - THREE

GROWTH AND DEVELOPMENT OF COOPERATIVE LAND
DEVELOPMENT BANKS IN INDIA AND MAHARASHTRA

I. INTRODUCTION

Germany is considered as the birth place of Land Mortgage Banking. In order to provide long-term funds to farmers the first 'Land Schaft' was created in Silesia in 1769. The success of Silesia Land Schaft led to the organisation of similar institutions for providing long term farm credit to farmers in various parts of Germany and then onwards in other nations also.

Growth in India

The first Land Mortgage Bank called 'Land Mortgage Bank of India Ltd.' was established by an English Company in 1863. It was incorporated in London on the model of 'Credit Foncier' of France.

Punjab took the lead in Cooperative Land Mortgage Banking. The first Cooperative Land Mortgage Bank was organised on 30th June, 1926 at Jhange in Punjab. The second such Bank was started at Nowgon in Bengal four years later and the third such Bank was established in 1926 at Gauhati in Assam.

In 1926 sufficient thinking had taken place and the idea regarding separate agency in the form of

Cooperative Land Development Banks had crystallised. The Registrar's Conference held in 1926, The Royal Commission on Agricultural and The Central Banking Enquiry Committee made several recommendations regarding the development in the organisation of Land Mortgage Banks. Some important recommendations of these Committees were as follows :

1) Land Mortgage Banks should be organised under the Cooperative Societies Act. The area of operation should not be too large as well as too small.

2) The principal objectives for which loans may be advanced should be -

- (a) redemption of land and houses of farmers,
- (b) improvement of land in methods of cultivation,
- (c) liquidation of prior debts and
- (d) purchase of land in special case.

3) Loans should not exceed half the value of properties.

4) No loans should be advanced which are not economically profitable to the borrower.

5) The amount and period of loans should be fixed with due respect to the repaying capacity of the borrower and also with regard to the purpose for which loan is advanced.



Before Independence, the development of Land Mortgage Banks in India had been generally on the lines of the above mentioned recommendations.

The real beginning of Land Mortgage Banking in India was marked by the establishment of 'Central Land Mortgage Bank' in Madras to coordinate the working of primary banks in that Province. At the instance of the 'Townsend Committee on Cooperation' (1927-28) in Madras and 'Royal Commission on Agriculture' in India. This CLMB was started in 1929. This gave an impetus to the organisation of new primary banks and within 10 years the number of such banks in Madras increased from 12 to 119. At the same time, the Mysore Central Cooperative Land Mortgage Bank was formed for similar purpose.

After Independence we find that with sufficient state-aid and state-partnership, the cooperative banking structure in India developed into a well-interpreted structure in all the State. The Cooperative Land Development Banking structure spread all over the country and in a few states their performance was noteworthy. Under the single agency, approach to provision of institutional finance to agriculture, the scope for expansion of cooperative land development banks was great and it is only after 1969, that under the multi-agency approach to agricultural financing that other banking institutions have also increased agricultural lendings.

In recent years the Cooperative Land Development Banks get increasing refinance facilities from NABARD which goes a long way in their better working.

In the post-Independence period considerable expansion has taken place in the field of Land Mortgage Banking following the recommendations of 'The All India Rural Credit Survey Committee Report.' The efforts of the Reserve Bank of India in this direction are noteworthy.

II. ORGANISATIONAL PATTERN OF LAND DEVELOPMENT BANKS

Land Development Banks can be organised either as -

- (a) a private share holders bank, or
- (b) a cooperative institution, or
- (c) a semi-state bank, or
- (d) a government managed institution.

In India these banks have been organised on the cooperative basis. These are voluntary associations of farmers. At the instance of the All India Rural Credit Survey Committee, State Government have also become partners of the Central Land Development Banks by subscribing to their share capital. Hence, the present pattern of Land Development Banks has become a quasi-cooperative pattern with the NABARD working as the overall supervising and guiding institution.

Broadly speaking, two types of structural patterns have been adopted for Land Mortgage Banks in the World : Federal and Unitary. In a federal structure primary Land Development Banks are set-up at the district or taluka levels which are federated to form the apex bank. In a unitary structure the bank functions through branches sub-branches and agencies. In Germany, Denmark, and Sweden the federal structure has been adopted while in France and Japan the unitary system is prevalent.

III. LONG TERM CREDIT STRUCTURE IN INDIA

Long Term Agricultural Credit

NABARD : at National level

Central Cooperative Land
Development Banks (State level)

Primary Cooperative Land Development
Banks (At District/Taluka level)

The long term credit structure at the moment consists of two tiers. At the apex level in state there is generally one State Cooperative Land Development Bank and at the district or taluka level there are Primary Cooperative Land Development Banks. There is no agency

at the village level. The Central Land Development Banks are rightly State controlled in most of the States of the country. The PLDBS operate within selected area of operation. This area is about a taluka.

In some States, there is a unitary system in which the State Cooperative Land Development Bank acts as a head office with primaries as their branches. In few other States, there is mixed type structure.

IV. FINANCES OF COOPERATIVE LAND DEVELOPMENT BANK

Cooperative Land Development Banks obtain their funds from share-capital, reserves, deposits and issue of bonds and debentures. Debentures are the most important sources of finance. They are long-term loans issued by the Central Land Development Bank carrying fixed interest and fixed periods, generally upto 20 years. These debentures are guaranteed by the State Government in respect of payment of interest and repayment of principal amount. Subscription to these debentures is made by the LIC, State Bank of India, Reserve Bank of India, Other Cooperative Banks. Besides, ordinary debentures the Central Land Development Bank also issued special rural debentures for which subscription is made by farmers, village panchayat and Reserve Bank of India. In recent years NABARD has been providing refinance facilities to Land Development Banks and this has increased their lending operations.

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Loan Operations of Land Development Banks

The main function of the Land Development Banks is to provide loans on the security of agricultural property. Long-term loans provided by Land Development Banks have strict rules regarding security offered. Normally they lend upto 50% of the value of the security. In assessing the value of security such factors as amount of land tax paid, rental value of land, gross and net income from land, sale value of land etc. are taken into account. While granting loan the repayment capacity of the farmer is also taken into account under the differential interest rate scheme (DIR) of Reserve Bank of India, lending of these banks is at a lower rate of interest is currently. The Land Development Banks provided credit for a variety of purposes like repayment of old debts, improvements of land, purchases of agricultural implements, development of irrigation etc. In recent years they are providing more loans for irrigation purposes. On June, 1985 there were 19 Central Land Development Banks in India and total loan advanced in 1984-85 was Rs.460 crores, operating through branches as well as PLDBS e.g. West Bengal, Himachal Pradesh etc. Thus, the long-term credit structure in India is not uniform through out the country. In Maharashtra we have the unitary structure.

V. COOPERATIVE LAND DEVELOPMENT BANKS
IN MAHARASHTRA

In Maharashtra the cooperative credit movement has a strong democratic base. The cooperative credit movement started about 80 years ago and at present covers almost all the villages in the State. It was essentially started as a official agency for finding a solution to the problem of rural indebtedness and for bringing credit within the reach of each farmer. In the Seventh Five Year Plan of Maharashtra provision of credit for agricultural production is one of the major programmes. In the Seventh Five Year Plan the basic approach is to consolidate and strengthen the cooperative banking structure. In Maharashtra before the 7th Plan short-term, medium-term and long-term credit was given to the farmers from two separate agencies that is cooperative banks and Land Development Banks. In the latter part of the Sixth Plan an attempt has been made to give long term credit, through selected primary agricultural credit societies so that the farmers get credit through single window. However, such a policy may have limitation in future. For the Seventh Five Year Plan it is estimated that the PACS will provide Rs.200 crores as long-term loans and the cooperative land development bank Rs.375 crores by the end of 7th Five Year Plan. For 1985-86 the target of long-term loans lending was Rs.56 crores

for 1986-87 the target fixed is Rs.66 crores and for 1987-88 the proposed target is Rs.74 crores.¹ Of the Rs.375 crores to be lent by the Land Development Banks, Rs.20 crores would be provided for ordinary programmes and the balance of Rs.355 crores would be under special programme. These lending programmes are undertaken by floating debentures to which contributions are made by State Government, Central Government, Other Cooperative Banks and NABARD.

In the case of ordinary debentures the States share during the 7th Plan is expected at Rs.50 lakhs and in case of special debentures an amount required for Government contribution is expected to be Rs.725 lakhs. An outlay of Rs.200 lakhs has been approved for the year 1987-88.

According to the Maharashtra State Cooperative Societies Act, 1960, Cooperative Land Development Banks are defined as - "Any Cooperative Bank or Banks advancing loans other than short-term loans to or through the Land Development Bank for the purposes herein enumerated namely² -

(1) Agricultural or Rural Development

Agricultural or Rural Development means any

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1. Figures for the 7th Plan are from Annual Plan 1987-88 Maharashtra State, Part-1, Government of Maharashtra Planning Department, p.62.
 2. The Maharashtra Cooperative Societies Act, 1960, Government of Maharashtra, Law and Judiciary Dept., 1986, Chapter XI, Section 111, pp.6390-6390A.

work of construction or activity pertaining to agricultural and rural development which includes the following that is to say -

- (a) Construction and repairs of wells
(including tube wells), tanks and other works for storage, supply or distribution of water for the purpose of agricultural or for the consumption of human beings and cattle employed in agricultural.
- (b) making agricultural lands fit for cultivation, improvements of lands including development of sources of irrigation.
- (c) renewal or reconstruction of any of the foregoing works or alterations therein or additions thereto.
- (d) preparation of lands for irrigation including command area development.
- (e) Drainage to and reclamation from, rivers or other waters or protection from floods or erosion or other damage by water of land.
- (f) bunding and similar improvements.
- (g) reclamation, clearance and enclosure or permanent improvement of land for agricultural purposes.

- (h) Horticulture.
- (i) Purchase of tools, implements, machinery including oil engines, pumping sets, electric motors for any of the purposes mentioned herein.
- (j) purchase of tractors or power tillers or any other agricultural machinery.
- (k) Increase in productive capacity of agricultural lands.
- (l) Construction, rebuilding or repairing of farm houses, cattle sheds and sheds for processing or repairing agricultural or cottage or village industrial product.
- (m) purchase of machinery for processing of agricultural produce.
- (n) purchase of lands for consolidation of holding under the relevant law for the time being in force.
- (o) animal husbandry and dairy farming such as purchase of milch cattle, rearing of cross breed female calves, cattle breeding sheep and goat rearing piggery, poultry farming and purchase of bullocks.
- (p) plantation including tree crops.
- (q) forestry.

- (r) pisciculture including development of inland and marine fisheries catching of fish and all activities connected therewith or incidental thereto.
- (s) sericulture or apiculture.
- (t) marketing storage including rural where godowns and cold storage and transport houses, or agricultural, cottage and industrial products acquisition of implements and machinaries in connection with such activities including animal driven carts.
- (u) market yards for agricultural produce.
- (v) bio-gas plants.
- (w) working capital or production credit to borrowers or investment credit.
- (x) setting up of cottage and village industries.
- (y) purchase of shares in cooperative sugar factories or in any processing industry of agricultural produce.
- (z) social forestry.
- (aa) such other purposes as the State Government may, from time to time, by notification in the official gazettee, declare to be agricultural or rural development purposes or,

- (ab) all activities incidental to or ancillary to, the abovementioned purposes.
- (ac) purchase of or acquisition of title to, agricultural lands by tenants occupants and assignees under any law for the time being in force.
- (ad) liquidation of Government, institutional and other secured debts to agriculturists.

VI. WORKING OF MAHARASHTRA STATE COOPERATIVE LAND DEVELOPMENT BANK LTD.

In Maharashtra primary Land Mortgage Bank financed by the provisional cooperative department were first organised in 1929 in State of Bombay. In 1935 a Central Land Mortgage Bank was organised in Bombay on the lines of the Madras a Land Mortgage Bank, to provide finance to the primary banks in the Province with the bifercation of the Bombay State into Gujarat and Maharashtra in May, 1960. Maharashtra was left with two Central Cooperative Land Mortgage Banks, viz., the Bombay Central Land Mortgage Bank and the Land Mortgage Bank Department of Vidharbha Cooperative Bank. But in 1959 the cooperative bank was merged with the Maharashtra State Cooperative Land Development Bank.

In Maharashtra the Cooperative Land Development Banks at present have 3 tier structure. At the State level there is the apex Maharashtra State Cooperative Land

Development Bank located at Bombay. At the District level at the district headquarters there are district branches of the Maharashtra State Land Development Bank and at the taluka level there are the sub-branches of the Maharashtra State Cooperative Land Development Bank. Thus, in Maharashtra we find that instead of the two tier structure we have a three tier structure. Moreover, Maharashtra State Cooperative Land Development Bank has a unitary type structure. The Maharashtra State Cooperative Land Development Bank function through its branches at district level and sub-branches function at taluka level under the district level branch. The Maharashtra State Cooperative Land Development Bank has six regional offices located at Kolhapur, Satara, Pune, Nasik, Aurangabad and Amaravati.

VII. PERFORMANCE OF THE MAHARASHTRA STATE COOPERATIVE LAND DEVELOPMENT BANK LTD.

From the Table No.3.1 we see that the share capital of MSCLDB increased from Rs.51 lakhs in 1961 to Rs.887 lakhs in 1971 and further increased to Rs.3870 lakhs in 1985. The percentage growth rate comes to 7588.24% which means that during the period the share capital increased by 75.88 times in 1985 over the base year i.e. 1961. In 1985-86 the share capital increased to Rs.3931 lakhs, of this share capital we find that the State Government's contribution is increasing.

Table No.3.1

The Maharashtra State Cooperative Land Development
Bank Ltd., Sources of Finance

(Rs. in lakhs)

Sr. No.	Item	1961	1971	1981	1984	1985
1.	Share Capital	51	887	3264	3727	3870 (7588.24)
2.	of which Govt. contribution	20	110	603	493	493 (2465.00)
3.	Working Capital	746	15752	32650	45002	47298 (6340.21)
4.	Loans Advanced	215	1880	5417	5851	5465 (2541.86)
5.	Loans Overdue	23	686	3271	3728	3560 (8188.00)
6.	Debentures issued	350	2320	4885	5542	4718 (1348.00)

Note : Figures in bracket indicate percentage growth in 1985 over 1961.

Source : Twenty Five Years of Cooperation in Maharashtra :
A Statistical outline, Commissioner of
Cooperative, Pune, 1985, pp.16-17.

Share capital contribution by the Government increased from Rs.20 lakhs in 1961 to Rs.110 lakhs in 1961 to Rs.493 lakhs in 1985. As a percentage this increase comes to 2465 percent increase in 1985 over 1961. The growth being 24.65 times in 1985 over 1961. The working capital of the MSCLDB increased from Rs.746 lakhs in 1961 to Rs.32,650 lakhs in 1981 and to Rs.47,298 lakhs in 1985.

During the period 1961 to 1985 working capital increased by 63.40 times. This increase in working capital is mainly due to increased borrowing by the MSCLDB. Long-term loan advanced also have a rapid increase for Rs.215 lakhs in 1961 to Rs.5463 lakhs in 1985. As a percentage total loan advanced during the period increased by 2541.86 percent. Thus, we find that MSCLDB has helped in developing agricultural production in Maharashtra by providing long-term loans to the farmers. Of the loans advanced, however, we find that the problem of overdues is increasing also and these overdues have also increased with the growth in loans advanced. Long-term loans over due in Maharashtra show a increase from Rs.23 lakhs in 1961 to Rs.686 lakhs in 1971. They increased very highly to Rs.3271 lakhs in 1981 and in 1985 they went up further to Rs.3560 lakhs. Overdues as a percentage of total loan advanced increased from 10.70% in 1961 to 65.14% in 1985.

Thus, we find the problem of overdues is also found a well-developed state like Maharashtra also. As a source of finance the Land Development Bank issue debentures in the money market and raises resources through which long-term loans are provided to farmers. The debentures issued by MSCLDB have also increased significantly. The amount of debenture issued increased

from Rs.350 lakhs in 1961 to Rs.2320 lakhs in 1971 and they went up further to Rs.5542 lakhs in 1984. In 1985 the debenture issued were of the value of Rs.4718 lakhs. As a percentage rise growth in debentures issued is 1348% in 1985 over 1961.

VIII. PURPOSEWISE LOANS PROVIDED BY MSCLDB

Table No.3.2 gives us the data regarding purpose wise loans advanced by MSCLDB. Analysis of the data shows that most of the loans have been provided for minor irrigation purposes which means that for agricultural development the Bank has concentrated its operations to increase water supply to the farms. In 1980-81 of the total loans of Rs.5417.02 lakhs, Rs.3905.93 lakhs were given for minor irrigation that is nearly 72% of the total loan were for irrigation from 1981-82 to 1983-84 of the total loan advanced, loans for minor irrigation were 63.24% in 1981-82, 69.14% in 1982-83 and 54.90% in 1983-84. Of the other purposes we find that loans in 1984-85 the percentage share came down to 46.87%. Loans for lift irrigation are also showing increasing trend. They increased from Rs.145 lakhs in 1980-81 to Rs.778.64 lakhs in 1982-83 and to Rs.769.69 lakhs in 1983-84, as a percentage of total loans advanced. Loans for lift irrigation increased from 2.68 percent in 1980-81 to 12.60 percent in 1982-83 and 13.16 percent

Table No.3.2

Purposewise Distribution of Loans by MSCLDB

		(Rs. in lakhs)						
Sr. No.	Purpose	1979-80 Amount	1980-81 Amount	1981-82 Amount	1982-83 Amount	1983-84 Amount	1984-85 Amount	1985-86 Amount
1.	Minor Irrigation	2527.94 (61.07)	3905.93 (72.10)	2613.28 (63.24)	4273.03 (69.14)	3217.51 (54.90)	2309.45 (46.87)	2895.26 (50.59)
2.	Tractor and Other Machinery	995.97 (21.06)	924.89 (17.07)	528.08 (12.80)	462.59 (7.53)	325.71 (5.56)	298.58 (6.06)	309.79 (5.41)
3.	Lift Irrigation	225.13 (5.44)	144.99 (2.68)	391.50 (9.49)	778.64 (12.60)	769.69 (13.16)	955.08 (19.39)	1179.76 (20.62)
4.	Horticulture	107.13 (2.59)	100.14 (1.85)	105.33 (2.55)	148.46 (2.40)	240.35 (4.23)	271.43 (5.51)	331.10 (5.79)
5.	Others	275.93 (6.67)	341.07 (6.30)	487.29 (11.81)	513.71 (8.53)	1290.38 (22.05)	1092.32 (22.17)	1006.58 (17.59)
Total		4132.10 (100.00)	5417.02 (100.00)	4125.48 (100.00)	6176.43 (100.00)	5850.66 (100.00)	4926.86 (100.00)	5722.49 (100.00)

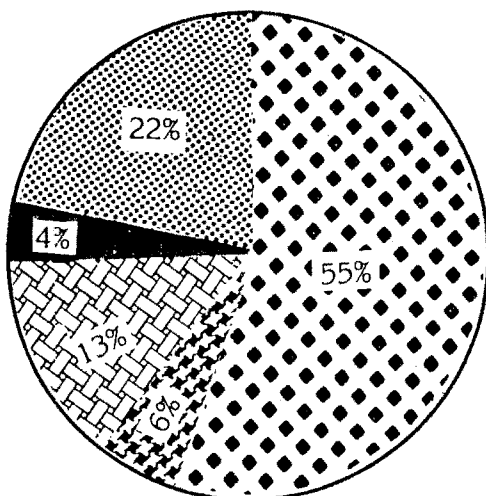
Note : Figures in brackets indicate percentage to total

Source : Annual Reports of the Maharashtra State Cooperative Land Development Bank Ltd., Bombay for the year 1980-81, 1981-82, 1982-83 and 1985-86.

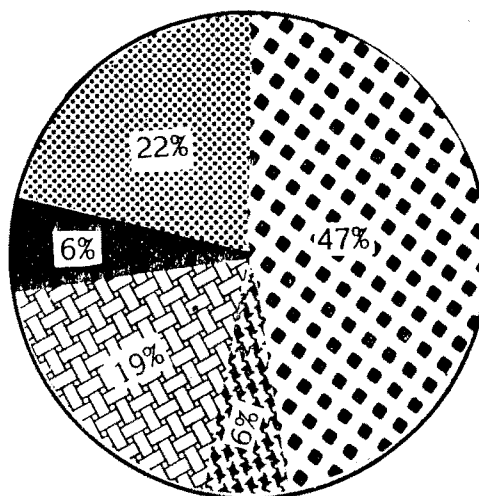
Dr. V. K. Joshi

PURPOSE-WISE LOAN DISBURSEMENT

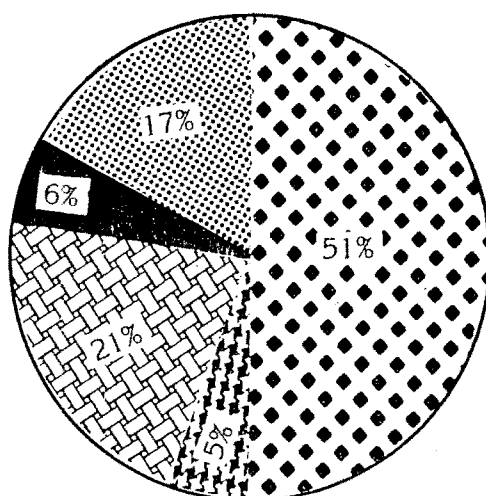
1983-84



1984-85



1985-86



Rs. in Lakhs

	PURPOSE	1983-84 AMOUNT	1984-85 AMOUNT	1985-86 AMOUNT
	MINOR IRRIGATION	3217.51	2309.45	2895.26
	TRACTOR & MACHINERY	325.71	298.58	309.79
	LIFT IRRIGATION	769.69	955.08	1179.76
	HORTICULTURE	247.37	271.43	331.10
	OTHERS	1290.38	1092.32	1006.58
	TOTAL	5850.66	4926.86	5722.49

in 1983-84. It went up percentagewise further to 19.39 percent in 1984-85. The above data shows that the MSCLDB is giving more importance to increased irrigation potential in a rain-fed State like Maharashtra. Loans advanced for purchase of tractor and other farm machinery are, however, becoming lesser. Loans advanced for this purpose decreased from Rs.924.89 lakhs in 1980-81 to Rs.464.96 lakhs in 1982-83 and they further declined to Rs.321.71 lakhs in 1983-84 and Rs.298.15 lakhs in 1984-85; loans for horticulture have increased in recent years and they have gone up from Rs.100 lakhs in 1980-81 to Rs.247.35 lakhs in 1983-84 in 1985-86 they have again increased to Rs.31.19 lakhs. Percentagewise loans for horticulture development have increased from 1.85 percent in 1980-81 to 5.79 percent in 1985-86.




Table No.3.3

Distribution of Loans to Small Farmers

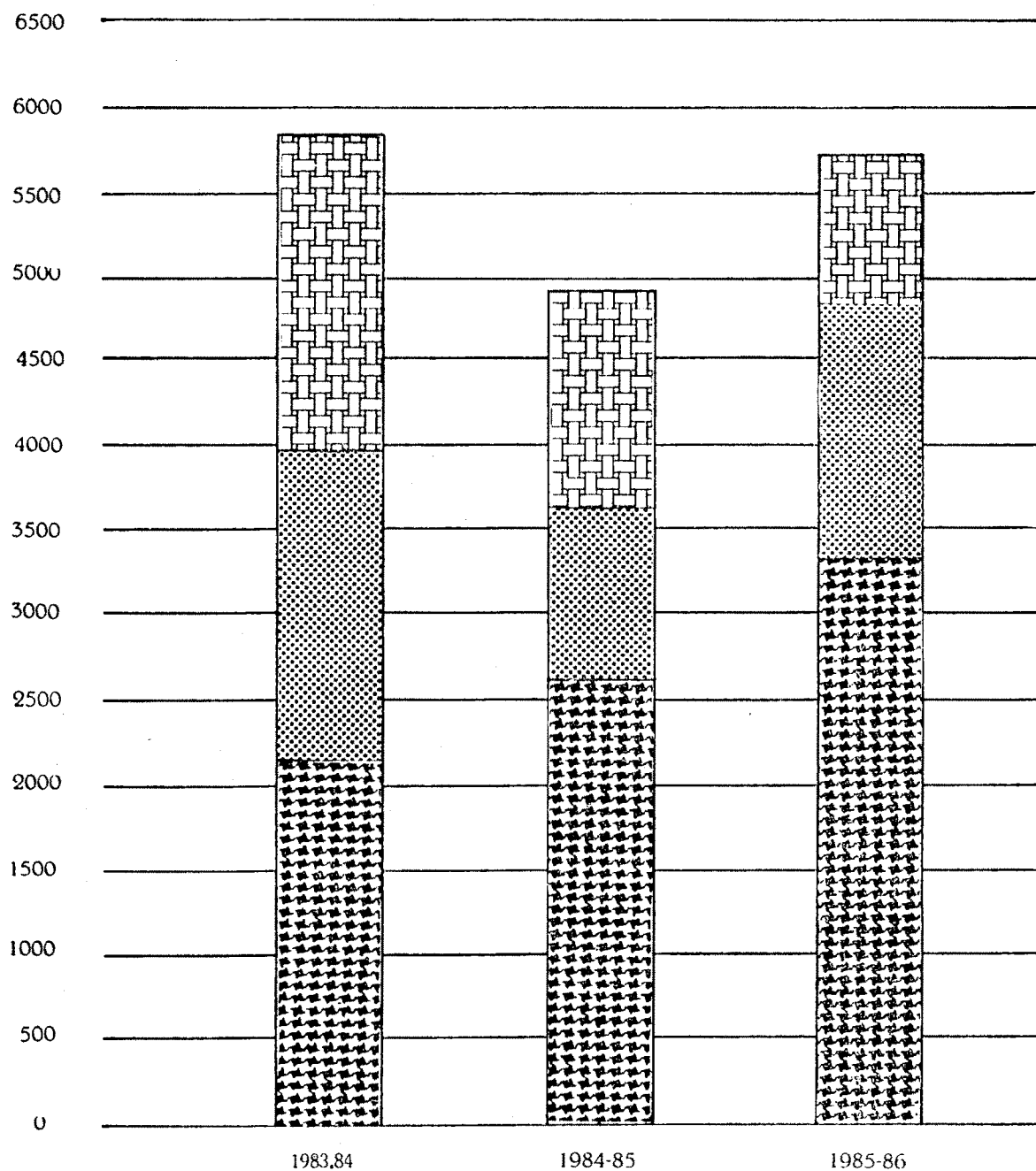
	(Rs.in lakhs)				
Category of Farmer	1980-81	1981-82	1982-83	1984-85	1985
1. Small Farmers	1931.32	1529.21	2240.61	2636.92	3291
2. Institutions	1011.80	898.78	1472.75	1025.88	1531
3. Other Farmers	2473.84	1697.49	2463.07	1264.06	899
Total	5417.02	4125.48	6176.43	4926.86	5722

Source : Annual Reports of the MSCLDB Ltd., Bombay, 1982-83, 1985-86.

**CHART SHOWING
THE RELATIVE PROPORTIONS
OF LOANS DISBURSED
TO SMALL FARMERS
OTHER FARMERS
AND INSTITUTIONS.**

		1983-84	1984-85	1985-86
	SMALL FARMERS	2142.04	2636.92	3291.43
	INSTITUTIONS	1837.55	1025.88	1531.46
	OTHER FARMERS	1871.07	1264.06	899.60
	TOTAL	5850.66	4926.86	5722.49

Rs. in Lakhs



Of the above loan sanctioned we find that a greater proportion of the loans have been provided to small farmers in Maharashtra, this proves that MSCLDB is helping the small farmers to increase production and enjoy better standard of living. Of the total loan sanctioned in 1980-81, Rs.1931 lakhs were provided to small farmers which as a percentage comes to 38.65 percent. The loans sanctioned to small farmers are showing increasing trend and they have increased to Rs.3291 lakhs in 1985-86, which as a percent to total loan comes to 57.52 percent. Relatively the loan sanctioned to other farmers is showing a decline. This decline was from Rs.2473 lakhs in 1980-81 to Rs.899 lakhs in 1985-87. (Refer Table No.3.3).

IX. WORKING OF SANGLI DISTRICT BRANCH OF MSCLDB

In the early period the Sangli District Cooperative Land Mortgage Bank was registered in 1962 at Sangli and had under its area of operation some part of Satara district. However, in latter period the new area of operation of the Sangli Branch covers all the talukas of Sangli district.

According to the Maharashtra Cooperative Societies Act, 1960 as modified upto 21st February, 1986, the State Land Development Bank establishes branches and

functions as Primary Land Development Bank.¹ The Sangli branch of the Maharashtra State Development Bank provides long term loans to the farmers of the district. The total loan sanctioned by the Sangli branch of the MSCLDB increased from Rs.178.64 lakhs in 1981-82 to Rs.273.56 lakhs in 1982-83. Total lending increased further to Rs.394.01 lakhs in 1985-86. The total proposals sanctioned increased from 1217 in 1981-82 to 1377 in 1985-86.

Table No.3.4

Extent of Repayment of Loans by Farmers
(MSCLDB - Sangli Branch)

(Rs. in lakhs)

Sr. No.	Year	Total Demand for Loans	Total Loans Distributed	Repayments
1.	1979-80	300.77	243.98	179.90
2.	1980-81	434.77	234.79	217.13
3.	1981-82	413.42	178.57	283.92
4.	1982-83	431.94	267.06	257.54
5.	1985-86	462.28	393.99	272.95

Source : Office Records of Sangli Branch of MSCLDB.

Land Development Banks as they involved in long-term lending have always to make concerted efforts

Maharashtra Act No.XXIV of 1961, Govt. of Maharashtra Law and Judiciary Department, Chapter 11, Section 144-1A, p.6399.

to recover loans sanctioned in the past. Through proper supervisory measures the banks have to maintain a high rate of recovery so that their finances are in proper condition. From the Table No.3.4 we find that the Sangli Branch of the MSCLDB has always made good recovery of loans which can be seen from the rise in repayments made by the borrowers to the bank. Repayments by the farmers have increased from Rs.179.90 lakhs in 1979-80 to Rs.293.92 lakhs in 1981-82, and in 1985-86 they were of the order of Rs.272.94 lakhs. Thus, we find that the Land Development Bank has made sufficient recovery of loans which is indicated in the rise in repayments made to the bank.

THE PURPOSEWISE LOAN SANCTIONED BY THE
SANGLI BRANCH

The purposewise loan sanctioned by the Sangli Branch of the MSCLDB for the years 1981-82 to 1985-86 is given in the Table No.3.5. Analysis of the data highlights the following points -

1) Lift Irrigation Scheme is the major purpose for which loans have been sanctioned on an increasing scale. Loans for Lift Irrigation increased from Rs.50.26 lakhs in 1981-82 to Rs.151.06 lakhs in 1983-84 and further increased to Rs.293.49 lakhs in 1985-86. As a percentage of total loans for lift irrigation increased

Table No.3.5

The Maharashtra State Co-Op. Band Development Bank Ltd., Dist. Branch Sangli
Purposewise Distribution of Loans

(Rs. in Lakhs)

Particulars	1981-82		1982-83		1983-84		1984-85		1985-86	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
1. New Well	76	9.76 (5.46)	73	8.54 (3.12)	43	5.33 (1.82)	38	2.05	46	213.54
2. Old Well	43	3.10	77	10.42	61	4.57	108	2.97	84	2.07
3. New Well + Pumpset	162	32.30 (18.08)	329	40.64	111	22.13	228	12.76	226	11.73 (2.98)
4. Old Well + Pumpset	54	4.04	181	13.34	89	11.53	-	-	-	-
5. Electric Motor	326	18.80 (10.52)	274	15.98	252	17.85	137	11.74	34	3.05 (0.07)
6. Oil Engine	26	1.65	37	2.65	19	1.78	17	1.26	6	1.05
7. Gobar Gas	06	0.37	7	0.59	6	0.32	48	1.72	73	2.39
8. Tractor and Power Tillers	04	6.59	15	14.31	3	3.04	6	6.65	8	8.23
9. Agriculture Equipments	-	-	2	0.14	2	0.13	6	0.36	18	1.62
10. Pipe-line	225	25.82 (14.45)	454	55.81	253	35.03	258	27.69	70	8.62 (2.19)
11. Farm House	35	1.52	27	3.32	16	1.82	31	2.71	63	5.45
12. Land Improvement	-	-	1	0.03	-	-	1	0.02	1	0.02
13. Lift Irrigation	04	50.26 (28.13)	17	62.48	11	151.06	655	259.51	11	293.49 (74.49)
14. Dairy	146	12.57	156	14.10	49	3.43	161	8.67	195	9.69
15. Grape Garden	61	8.78 (4.91)	171	22.61	244	32.44	525	43.54	461	39.95 (10.14)
16. Poultry	09	1.41	3	0.46	4	0.35	-	-	-	-
17. Sheep Rearing	36	1.62	37	1.52	10	0.55	1	0.04	6	0.30
18. Horticulture	-	-	8	0.11	42	0.70	64	0.59	75	0.92
19. Stock tank	01	0.05	-	-	-	-	-	-	-	-
20. Godown	-	-	12	6.51	-	-	-	-	1	3.31
Total	1217	178.64	1981	273.56	1215	292.06	2289	382.69	1377	394.01

Note : Figures in the bracket indicates percentage to the total
Source: Office Records of the Sangli District Branch of MSCLDE.

from 28.13% in 1981-82 to 74.49% in 1985-86. Thus, supply of water which will increase agricultural production is given importance by the branch in its long-term lendings.

2) To increase irrigational facilities in addition to lift irrigation loans for digging of new wells, repairing of old wells, purchase of pumpsets and development of pipeline is also given importance. These schemes are mainly implemented in those districts where the water scarcity is a problem. The Sangli branch of the Maharashtra State and MSCLDB increased loans for pipelines from Rs.25.82 lakhs in 1981-82 to Rs.35.03 lakhs in 1983-84. The number of proposals sanctioned increased from 225 to 253 in 1983-84. In 1984-85 Rs.27.69 lakhs were sanctioned for development of pipelines which as a percentage of total loan comes to 7.24%. However, in 1985-86 as the number of proposals sanctioned were less (only 10) the loan sanctioned for pipelines were reduced to Rs.8.62 lakhs.

3) The data also reveals that as proposals for electric motors were more in 1981 to 1984 the loan sanctioned for this also increased but in 1984-86 as the proposals decreased the loan amount sanctioned also decreased. Percentagewise this decrease is from 14.45% in 1981-82 to 2.19% in 1985-86.

4) The Bank lending for grape garden shows a significant increase which means that grape farming is increasing rapidly in this district. Sangli district of Maharashtra and specially the talukas of Tasgaon, Miraj and Vita have increased grape garden cultivation. Therefore, long-term loan to farmers to undertake grape farming also increased. Loans provided by the Sangli branch increased from Rs.8.78 lakhs in 1981-82 to Rs.43.54 lakhs in 1984-85. During this period the number of proposals sanctioned increased from 61 in 1981-82 to 525 in 1984-85. However, in 1985-86 the proposals sanctioned came down to 461 and, therefore, the loans sanctioned decreased to Rs.39.95 lakhs in 1985-86. As a percentage of total loans sanctioned loans for grape gardens increased from 4.91% in 1981-82 to 10.14% in 1985-86.

Thus, we find that as grape farming has increased the Land Development Bank lending to farmers has also increased. In Sangli district grape farming has been increasing relatively on a larger scale in Tasgaon, Vita and Miraj talukas. Hence, naturally the taluka sub-branches of the MSCLDB, in these talukas have increased the loans provided for grape farming.

As per the records of the Sangli branch of MSCLDB which was provided to the researcher, it is seen that loans for grape gardens in Miraj taluka during the

period between 1967 to 1981 was Rs.6.06 lakhs and during this period 64 proposals of the farmers were sanctioned. During the same period for Tasgaon taluka Rs.64.92 lakhs were provided and 625 proposals were sanctioned. In case of Vita taluka during the same period Rs.16.52 lakhs were provided and 126 proposals were sanctioned.

X. PURPOSEWISE LOANS SANCTIONED BY MIRAJ SUB-BRANCH

The purposewise loans sanctioned by the Miraj sub-branch of the MSCLDB is given in Table No.3.6. The table provides information regarding total loan sanctioned by the sub-branch upto June, 1986. Analysis of the data reveals that -

1) The total loan sanctioned upto June, 1986 by the Miraj sub-branch of the MSCLDB was Rs.21.19 crores and 6421 proposals were sanctioned.

2) Of the total loan sanctioned upto 1986 Rs.32.88 lakhs were for grape garden farming and 232 proposals were sanctioned.

3) As this taluka of Sangli district gets less rainfall and as well irrigation is the most importance source of irrigation, loans sanctioned for digging of new wells, repairs of old-wells, purchase of pumpsets, development of pipelines, are the other reasons for which the Miraj sub-branch has provided relatively more loans upto 1986. For new wells Rs.94.17 lakhs were provided, for repairs of old wells

Table No.3.6

Purposewise Distribution and Loans by Miraj sub-branch
of MSCLDB.

period 9

(Rs. in lakhs)

Purpose of the loan	No. of Proposals	Total Amt. of Loans sanctioned Upto 30th June, 1986.
1. Digging of new wells	2114	94.17
2. Loan for Construction new wells and pipeline	38	5.53
3. Loan for repair of wells	1293	37.44
4. Loan for wells and pipeline	50	8.75
5. Loan for purchase of oil engines	578	13.42
6. Loan for purchase of Electric Motors	1292	35.38
7. Loan for pipeline schemes	100	13.42
8. Loan for purchase of milk animals	58	6.41
9. Loan for cement pipeline(PVC)	357	19.56
10. Loan for improvements of land	261	4.66
11. Loan for purchase of tractors	25	5.58
12. Loan for construction of cow sheds	6	0.43
13. Loan for grape farming	232	32.88
14. Loan for purchase of lands	13	0.38
15. Loan for other purposes	4	0.84
Total	6421	281.89

Source : Office Records of the MSCLDB, Miraj sub-branch.

check up
Rs.37.44 lakhs were provided and for purchase of electric motors Rs.35.38 lakhs were provided, for development of pipelines Rs.19.56 lakhs were provided upto 1986. Thus, this analysis shows that grape garden finance has been increased by the LDB and to develop the grape garden properly, loans are also provided to the farmers for development of irrigation, purchase of electric motors, development of pipelines, purchase of agricultural inputs etc.

Thus, the Land Development Bank has taken satisfactory measures to provide finance in Miraj Taluka so that the farmers undertake increased grape garden farming.

XI. GRAPE GARDEN DEVELOPMENT SCHEME OF MSCLDB

From the working of the Sangli branch of the MSCLDB we have noticed by that the branch has been increasing loans for horticulture development. As a part of this we find that since 1970's the Bank has been providing increased loans to the farmers for grape garden development. For these purpose the Sangli branch of the MSCLDB prepared special scheme of finances for grape garden development which was introduced in 1970-71 under this scheme the Land Development Bank started grape garden financing. In the initial period the scheme was designed to develop grape gardens in Sangli district to

cover one thousand acres. Under this scheme farmers were provided Rs.10,000/- per acre for developing grape gardens. This scheme of Rs.1 crore was accepted by the Head Office and was implemented during 1970-71 to 1978-79. The farmers from this district took advantage of this scheme which helped in grape garden developing in Sangli district. Due to the success of the above scheme the Sangli branch of the MSCLDB further introduced grape garden project 2, 3, 4 and 5 which were sanctioned by the head office. Upto the end of the 4th Grape Garden Project upto 1985-86, 880 acres of grape gardens were provided bank finance and in the 5th Grape Garden Project 109 more acres of grape gardens have been developed. These grape garden projects were implemented with the help of refinance facility available to the MSCLDB from the ARDC and currently from NABARD. The second and the third grape garden projects were submitted for sanction to the ARDC for which the ARDC provided assistance of Rs.37.40 lakhs and Rs.42.70 lakhs respectively. The sixth Project of Grape Garden is targetted to develop 200 additional acres of grape gardens during the period 1986 to 1989 involving a total cost of Rs.120 lakhs for which NABARD will provide refinance facility of Rs.103.57 lakhs.

The Sixth Project for grape garden development will be implemented in two phases in the first phase from

July, 1986 to June, 1987 - 75 acres of grape gardens will be planted, of which small farmers will develop 45 acres, the cost per acre of grape farm development will be 0.60 lakhs and the total cost will be Rs.45 lakhs. Of this total cost Bank Loan to the extent of Rs.44.10 lakhs would be provided and Rs.0.90 lakhs will be down payment. The Bank loan to be provided would be realised through sale of debentures for which NABARD refinance would be of Rs.38.84 lakhs and State Government contribution will be Rs.5.26 lakhs. In the second phase between July, 1987 to June, 1988, 75 acres of grape farms will be developed at a cost of Rs.30 lakhs per acre cost being Rs.0.60 lakhs of these 50 acres, 30 acres will be developed by small farmers and they will be provided Rs.18 lakhs of loan. Of the total cost bank will provide loans equal to Rs.29.40 lakhs and this amount will be raised through debentures sale for which NABARD will provide refinance of Rs.25.89 lakhs and the State Government contribution will be Rs.3.52 lakhs. In addition whenever needed the MSCLDB, Bombay will provide interim financial assistance whenever needed.

The grape garden development projects are implemented in seven talukas in Sangli district viz., Tasgaon, Miraj, Khanapur, Jath, Khavathe-Mahankal, Atpadi and eastern part of Walva. Under these Grape Garden

Scheme we find that the farmers in the above talukas have taken benefits of the Scheme and have developed grape gardens in an area of about 3000 acres. Thus, the above scheme has helped in development of grape farming in Sangli district with the help of the finance provided the farmers of Sangli district are now known all over the country for their grape production.

Under the grape garden development scheme we find that the Land Development Bank has provided increasing financial assistance to the farmers. Under the Grape Garden Project I scheme which was implemented from 1970-71 to 1978-79, 6 Blocks and all villages in the six taluka's were covered. The target was to develop 1000 acres of grape farms and for which Rs.100 lakhs of loans were to be given. The actual achievement of the project, however, developed only 260 acres and only Rs.26 lakhs were given to the farmers as loans. 500 farmers benefited from these schemes. The Second Project which was implemented from 1979-80 to 1980-81, however, was successful in achieving 100 percent target. Under this project 360 farmers from the 6 taluka's were sanctioned loans amounting to Rs.37.40 lakhs and 200 acres of grape farms were developed. In Project No.3, which was implemented from 1980-81 to 1981-82 loans provided for grape garden farming were Rs.39.25 lakhs and additional 124 acres of grape gardens were developed and 195 farmers

were sanctioned loans. Under the grape garden project No.4 an amount for Rs.90.47 lakhs was sanctioned as loans to 382 farmers for development of grape gardens. During the years 1983 to 1986 under the Project No.5, upto June, 1986 Rs.25.5 lakhs were provided as long-term loans for grape garden farming and additional 108 acres of grape gardens have been developed.

As a part of the above grape garden schemes the Miraj sub-branch of MSCLDB is providing long-term finance to farmers to develop grape gardens. In 1980-81 the Miraj branch sanctioned loans equal to Rs.0.38 lakhs, the loans given increased to Rs.3.42 lakhs in 1982-83. In 1983-84 long-term loans equal to Rs.3.05 lakhs were provided in the Miraj taluka and 6 hectares of land was brought under grape farming of this amount Rs.0.31 lakhs were given as loans to small farmers who developed one hectare of grape farms. In 1984-85 in Miraj taluka the Sangli branch of MSCLDB under the grape farm project distributed long-term loans of Rs.2.62 lakhs to develop grape farms and 3.25 hectares of grape farms were developed. Of the total loan distributed Rs.1.58 lakhs were given to small farmers who developed grape farms in 2.10 hectares of land. In 1985-86 the loans sanctioned for grape farms in Miraj taluka by the Sangli branch of MSCLDB were equal to Rs.1.16 lakhs of which 0.95 lakhs

were given as loans to small farmers. During the period 1985 to 1986 in Miraj taluka long-term loans for grape farm development provided were equal to Rs.6.86 lakhs and 9.25 hectares of land was brought under grape farming. Of these loans Rs.2.84 lakhs were given as loan to small farmers. From the above data it is clear that the Sangli branch of the MSCLDB through the Miraj sub-branch is providing increased long-term loans for the development of grape farming in Miraj taluka. As a result of this loan financing in Miraj taluka we find that small farmers are also increasing grape farming on their holdings.

XII. DETAILS OF THE GRAPE GARDEN PROJECTS

Under the grape garden development loans scheme a farmer who desire to develop a grape farm is provided a loan of Rs.60,000 per acre with a maximum limit of Rs.1.20 lakhs i.e. each farmer is given a loan for 2 acres. The mortgage for 1 acre of grape finance is 5 acres. The final sanction of loans depends upon the recommendation of the technical officer regarding water availability, nature of soil, credit worthiness of the cultivator etc. The loan is given in two instalments -

- 1) First instalment is given for planting and development of grape vines.
- 2) Second instalment is given for fertilizers, insecticides and pruning of grape vines etc.

The first instalment is given in cash and the farmer is responsible for preparation of land, planting, providing dose of natural manures, watering, plant protection, pruning of vines, cost of bomboo sticks etc. The first instalment is given in two phases. In the first year Rs.16,500 are given for preparation of the grape garden. Then as a part of the loan of the first instalment, in the second year, the second part of the loan amount equal to Rs.28,500 is given. On verification by the Bank of the above work done the second instalment is released. The second instalment is given both in cash and kind. Amount of money given is Rs.15,000/-. The loan has to be repaid in ten years including gestation period of one year. The amount of interest at the end of the second and third year is capitalised and added to the principal outstanding. After deducting the amount to be paid by the borrower in the second and third year, from the fourth year onwards the loan is recovered in six equal instalments from the farmers.

In addition to the provision of loans the technical staff appointed by the Bank provides the following assistance to the farmers. For this purpose the MSCLDB has appointed the staff for implementing the scheme. The technical staff provides the farmers the following assistance -

- (1) Selection of suitable site.
- (2) Lay-out of the garden
- (3) Supply of seedling of the required varieties by rising them on farmers fields.
- (4) Plant protections equipment on hire or at cost and also supply of insecticides and fungicides at cost.
- (5) Supply of fertilizers and fertilizer mixtures.
- (6) Supervision over all the grape gardens by periodical visits.
- (7) Train farmers in training of vines forcing the blossom, understanding diseases and their control etc.
- (8) To guide farmers in new technique of gardling and gibbralic acid treatment.

The farmers while applying for the loans have to provide the necessary security and mortgage, as regard security the title of the land and the area have to be clear as per office records. Valuation of security of loans granted for grape crops will be made at 8 times of the net post-development income of the land. Land given for mortgage for loans for grape gardens also includes land on which the grape crop is to be cultivated. In addition the farmer should hold at least 3 acre of

cultivable land for each one acre of land under grape cultivation.

The State Government assists the MSCLDB in the scheme by giving guarantee for repayment of principal and payment of interest under the special development of debentures which are issued under this scheme by MSCLDE. In addition the State Government also subscribes to the special development debentures to the extent of 25 percent of the total amount.

The NABARD also provides financial assistance to the MSCLDB for the scheme. The NABARD provides refinance by way of subscription to the special development debentures that are issued by MSCLDB. For the grape garden project No.6 the NABARD subscribed to the extent of 85 to 90% of each issue of the special debentures issued by MSCLDB (subscription amount was equal to Rs.103.6 lakhs).

While providing the refinances the NABARD has put certain terms and conditions which have to be followed by the MSCLDB while implementing the scheme some of the important terms and conditions are as follows:

(1) While selecting villages/areas financing orchards and small plantation, the bank ensure compactness of areas to facilitate supervision. The Bank may identify suitable areas in consultation with the concerned

department of the State Government or Commodity Boards etc. as the case may be.

(2) As an appraisal norm, the Bank will ensure that beneficiary has a minimum acres of land under other yielding crops or has other sources of income for maintenance of his family during gestation period.

(3) Loans under the scheme shall be given to those beneficiaries who have assured water supply facilities to irrigate plants in areas where rain fed cultivation is not possible.

(4) Loans shall be issued in respect of investment for raising plants in first year and maintenance in subsequent years till the plant comes to bearing stage or as indicated in the Schedule-III enclosed. However, where loans are proposed to be availed of only in the first year of planting and not for its maintenance during the subsequent years, the Bank shall satisfy itself that the beneficiaries have their own resources to meet expenditure for maintenance of garden in subsequent years.

(5) The Bank shall satisfy itself that the planting material of the required quantity and quality is procured by beneficiary from reliable sources such as nurseries of Universitires or State Government or any other nurseries approved by the concerned department

of the State Government etc.

(6) The Bank shall ensure that the beneficiary observes the following technical norms.

1. The pits dug will be of standard size and with recommended spacing and number of plants as indicated below :
 - a) Spacing 6'X4' and 8'X3'
 - b) Number of plants per acre 1815.
2. The pits will be filled with top soil, cattle manure and phosphate before planting is done.
3. Only high-yielding recommended varieties (Thompson seedless) shall be planted instead of traditional varieties.
4. The young saplings will be stocked immediately after planting of shade cover provided wherever necessary and irrigated.
5. Adequate fencing arrangements will have to be provided as per local practices with a view to protecting the garden from cattle and trespassers.
6. Pot watering of plants shall be done during dry months of first 2 to 3 seasons in respect of plants to be raised under rain-fed condition.

7. The recommended fertilisation and plant protection schedules shall be followed.
8. Mixed cropping will be done wherever possible.
9. The beneficiaries under the scheme will raise inter crops preferably leguminous crops during first 4 to 5 years so as to improve returns from main investment.

Adequate shades may be developed for protection of crops proper and adequate soil conservations and drainage arrangements shall be ensured. Installation of processing equipment civil and engineering works shall be carried out according to approved plans and designs. Concurrent and continuous technical guidance and supervision help may be rendered to the beneficiaries by the well trained and experienced officer of the bank's technical cells for successful implementation of the projects. If this is not possible the Bank shall satisfy itself that the required technical guidance and supervision is made available by the concerned department of the State Government or commodity board etc.

LOAN TO SMALL FARMERS

Wherever the scheme envisaged loans to several categories of beneficiaries the Bank shall endeavour that

not less than 60 percent of the financial assistance is extended to small farmers.

STATE GOVERNMENT'S CONTRIBUTION

The Bank shall obtain the consent of the State Government to contribute 15 percent of each issue of debentures at the rate of interest and on the terms and conditions prescribed by the National Bank from time to time. In case the contribution for debentures is to be shared between the State Government and the Government of India the same may be indicated to NABARD.

GOVERNMENT GUARANTEE

The Bank shall obtain full and unconditional State Government's guarantee for repayment of principal and payment of interest there on in respect of special development debentures by NABARD under this sanction.

RATE OF INTEREST

The rate of interest for refinance sanctioned by the national bank will be such as may be determined by the National Bank from time to time. At present the rate of interest which the National Bank charges are as follows :

	<u>Small Farmers</u>	<u>Others</u>
Diversified purposes(Grapes)	6.50 p.a.	8% p.a.

The Bank charges interest at the following rates to the ultimate borrowers -

	<u>Small farmers</u>	<u>Others</u>
Diversified purposes(Grapes)	10%	12.50%

The loans issued under the scheme shall be repaid by the beneficiaries within a period of 10 years inclusive of 4 years of grace i.e. 6 annual equal instalments. However, during the 2nd, 3rd and 4th year only interest shall be recovered. Repayment of refinance shall more or less coincide with agreed dates for collection from ultimate borrowers as per schedule to be drawn up at the time of each drawal of refinance on the following basis :

Security :

The security from ultimate borrower for loans sanctioned under the scheme shall be such as may be prescribed by the bank in pursuance of the guidelines issued by the Reserve Bank of India and prescribed by the Registrar of Cooperative Societies, Maharashtra from time to time. The loan shall be secured by the first mortgage of the land of the participating farmers. The lands will be valued at (8) times of the net income after development according to the guidelines issued by NABARD, the security shall include the net of equipment purchased out of the loan amount. The loan will be restricted to the 60 percent value of the land after

development and cost of machines etc., less down payment. Wherever the security falls short of the required value but the borrower is otherwise eligible for loan assistance on the basis of the incremental income accruing under the scheme, the State Government shall guarantee the deficit in security in all such cases.

Insurances

Adequate insurance cover shall be obtained in respect of all the assets acquired by the beneficiaries and such insurance cover shall be comprehensive covering the entire period of the loan.

Appraisal System

All investments shall be evaluated in terms of incremental returns and the Bank shall ensure that sanction of loan is in as yet our by the National Bank from time to time.

Loans from Other Resources for Similar Purposes

The Bank shall apply the same terms and conditions of project lending for any similar types of loans which it may sanction either from own resources or by any other means.

Direct Payment of Suppliers

The Bank shall make payments directly to the suppliers in respect of machinery etc. purchased by the beneficiary from out of loan amount sanctioned under the

scheme.

Book of Accounts

The Bank shall maintain separate accounts in respect of the scheme.

Production Credit

The Bank itself shall either provide short-term credit for the beneficiaries availing themselves of loans under the scheme or shall satisfy itself that such credit is provided to the beneficiaries by the primary cooperative societies, regional rural banks/other commercial banks to the extent required.

While formulating and implementing the scheme for grape garden development, MSCLDB has prepared its own analysis of cost of cultivation per acre of grape farms, item-wise cost of cultivation and yearwise cost of cultivation. It has also made calculations about the yearwise income of grapes per acre and has also made calculation regarding net income yield from per acre grape farming. The study of this analysis is important because we can compare these figures with the actual field data obtained by us when the sample study was undertaken by us. Such comparison will help us to bring out the conclusions as to whether the loan financing for grape farming development has achieved its impact and whether the farmers have benefited to the extent the Land Development Bank expected.

Table No.3.7

Details of the Cost of Cultivation of Grape per acre of Thompson Seedless for 10 years in Sangli District as calculated by MSCLDB

Particulars	1st year	2nd year	3rd year	4th year	5th year	6th year	7th year	8th year	9th year	10th year	Total
1. Preparation of Land	2,000	-	-	-	-	-	-	-	-	-	2,000
2. Lay-out basic manure, cost of cutting	2,000	-	-	-	-	-	-	-	-	-	2,000
3. Cost of Nursery & planting	2,500	-	-	-	-	-	-	-	-	-	2,500
4. Cost of watering	500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,500
5. Manure & Fertilizers and Pesticides	3,500	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	48,500
6. After care & interculture	-	1,500	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	17,500
7. Plant protection (Pesticides and insecticides)	1,000	3,000	3,500	3,500	4,500	3,500	3,500	3,500	3,500	3,500	33,000
8. Cost of Bamboo Sticks(Chivaties)	3,500	-	-	-	-	-	-	-	-	-	3,500
9. Harvesting	-	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	22,500
10. Cost of trealishing(iron angle)	30,000	-	-	-	-	-	-	-	-	-	30,000
11. Gibralic acid treatment (twice in year)	-	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	13,500
12. Training and Pruning of Labour	-	-	2,500	2,500	7,000	2,500	2,500	2,500	2,500	2,500	20,000
13. Miscellaneous	-	-	500	500	500	500	500	500	500	500	4,000
Total	45,000	15,000	20,000	20,000	25,000	20,000	20,000	20,000	20,000	20,000	2,08,500

Source : Grape Project No.6, Horticulture Scheme, MSCLDB, Sangli Branch, Annexure - II.

The details of cost of cultivation of Thompson seedless variety of grapes per acre for the last 10 years has been calculated by the Sangli branch of MSCLDB.

(Please refer Table No.3.7). This information is presented in Table No.3.7. From the table we find that cost of cultivation of grape farms is high in the initial year and in the latter years i.e. from the third to tenth year the cost remains between Rs.20,000 to Rs.25,000 per acre grape farms in the first years the estimated cost of cultivation of one acre grape farm is Rs.45,000. Of which the cost of preparation of the grape farm is high. The cost of trealishing comes to Rs.30,000. Other cost in the first year include cost of preparation of land, cost of fertilizers, bamboo sticks, etc. From the third year onwards the cost is on an average between Rs.15,000 to Rs.20,000 per acre. Of this cost, costs of fertilizers and pesticides, plant protection.

In addition to cost of production analysis of MSCLDB has also made estimates of yield per acre from the development of grape farms. Estimates of yield per acre as calculated by the MSCLDB is presented in Table No.3.8. As per the Table we find that in the first year of cultivated there is no yield. In the second year yield per acre is estimated to be 6,000 kgs. The yield in the subsequent year increases to 7,000 kgs.

Table No.3.8

Statement showing yearwise income of grape per acre during the ten years period of Thompson Seedless variety.

Sr. No.	Year (age of grape vines)	Yield per acre in kgs.	Estimated average from gate price of Thompson seedless	Total Income of Thompson seedless
1.	1st	-	-	-
2.	2nd	6,000	4.00	24,000
3.	3rd	7,000	4.00	28,000
4.	4th	8,000	4.00	32,000
5.	5th	8,000	4.00	32,000
6.	6th	8,000	4.00	32,000
7.	7th	8,000	4.00	32,000
8.	8th	8,000	4.00	32,000
9.	9th	8,000	4.00	32,000
10.	10th	8,000	4.00	32,000
Total				2,76,000

Source : Grape Project No.6, Horticulture Scheme, MSCLDB, Sangli Branch, Annexure III.

per acre and from the fifth year to the tenth year the yield per acre is estimated to remain at 8,000 kgs. per acre. Assuming the price of Thompson seedless

variety of grapes to be Rs.4/- per kg. the total income from the development of 1 acre grape farm for 10 years is estimated to be nearly Rs.2,76,000/-. The total income in the first year is estimated at Rs.24,000 which rises to Rs.32,000/- in the third year and remains constant upto the tenth year.

Table No.3.9

Statement showing the economics of grape cultivation of one acre for 10 years for Thompson seedless as calculated by MSCLDB.

Sr. No.	Year	Gross Income	Net Income	Recovery of loan with interest
1.	1st	-	-	-
2.	2nd	24,000	15,000	9,000.00
3.	3rd	24,000	15,000	9,000.00
4.	4th	32,000	19,675	12,324.60
5.	5th	32,000	19,675	12,324.60
6.	6th	32,000	19,675	12,324.60
7.	7th	32,000	19,675	12,324.60
8.	8th	32,000	19,675	12,324.60
9.	9th	32,000	19,675	12,324.60
10.	10th	32,000	19,675	12,324.60
Total		2,76,000	1,67,725	1,04,268.00

Source : As per table No.3.8.

In the second year recovery of loan and interest estimated at Rs.9,000. (Table No.3.9). Thus, the second year's net income expected is Rs.15,000 per acre. From

the third year to the tenth year the amount of recovery of loan with interest is Rs.12,324.60. Thus, from the third to the tenth year of one acre grape farming the bank estimates the farmer to make a net income of Rs.19,675 per acre of grape farms.